Zwei aktuelle Entwicklungen fordern die Architekturgeschichte dazu heraus, das Verhältnis von Bild und Bau zu überdenken: das verstärkte bildwissenschaftliche Interesse der Kunstgeschichte und das Aufkommen eines Typs von Architektur, der versuchsweise als »iconic building« umschrieben worden ist. Der vorliegende Band nimmt diese Herausforderung zum Anlass, um neue Perspektiven eines Verständnisses von architektonischer Bildlichkeit zu erproben. Ein besonderes Augenmerk gilt dabei Wahrnehmungsformen von Architektur, die das alltägliche Bewohnen und Benutzen überschreiten und außergewöhnliche, visuelle und sinnliche Erfahrungen vermitteln. Die Metapher vom »Auge der Architektur« spielt auf jene Momente an, in denen ein Bau aufgrund seiner bildlichen Qualität uns solcherart ›anzusprechen‹ oder ›anzublicken‹ scheint, dass wir ihn in gänzlich neuer Weise wahrnehmen. Vom Film über digitale Entwurfstechniken, von Architekturphotographien bis zu klassischen Themen wie den Säulenordnungen, Schaufassaden und Architekturen im Bild wird das Thema hier verhandelt.

ISBN 978-3-7705-5081-4

Das Auge der Architektur
Andreas Beyer, Matteo Burioni, Johannes Grave (Hg.)

NFS Bildkritik
NCCR Iconic Criticism
eikones

W. Fink

eikones
NFS Bildkritik
NCCR Iconic Criticism

Das Auge der Architektur

Andreas Beyer, Matteo Burioni, Johannes Grave (Hg.)

Wilhelm Fink

eikones
Herausgegeben vom Nationalen Forschungsschwerpunkt
Bildkritik an der Universität Basel

Das Auge der Architektur. Zur Frage der Bildlichkeit in der Baukunst

Andreas Beyer | Matteo Burioni | Johannes Grave (Hg.)

Wilhelm Fink

Schutzumschlag: Centre Pompidou-Metz, April 2010 © Shigeru Ban Architects Europe und Jean de Gastines Architectes, mit Philip Gumuchdjian für die Konzeption des erstplatzierten Wettbewerbsprojektes/Metz Métropole/Centre Pompidou-Metz/Photo Roland Halbe.

Bibliografische Information der Deutschen Nationalbibliothek
Die Deutsche Nationalbibliothek verzeichnet diese Publikation in der Deutschen Nationalbibliografie; detaillierte bibliografische Daten sind im Internet über http://dnb.d-nb.de abrufbar.

Alle Rechte, auch die des auszugsweisen Nachdrucks, der fotomechanischen Wiedergabe und der Übersetzung, vorbehalten. Dies betrifft auch die Vervielfältigung und Übertragung einzelner Textabschnitte, Zeichnungen oder Bilder durch alle Verfahren wie Speicherung und Übertragung auf Papier, Transparente, Filme, Bänder, Platten und andere Medien, soweit es nicht §§ 53 und 54 URG ausdrücklich gestatten.

© 2011 Wilhelm Fink Verlag, München
(Wilhelm Fink GmbH & Co. Verlags-KG, Jühenplatz 1, D-33098 Paderborn). Internet: www.fink.de

eikones NFS Bildkritik, www.eikones.ch
Die Nationalen Forschungsschwerpunkte (NFS) sind ein Förderinstrument des Schweizerischen Nationalfonds.

Gestaltungskonzept eikones Publikationsreihe: Michael Renner, Basel
Lektorat: Andrea Haase, Basel. Layout und Satz: Lucinda Cameron, Basel

Herstellung: Ferdinand Schöningh GmbH & Co. KG, Paderborn

ISBN 978-3-7705-5081-4

Inhalt

Andreas Beyer, Matteo Burioni, Johannes Grave
11 **Einleitung. Zum Erscheinen von Architektur als Bild**

Andreas Beyer
39 **Die schauende Baukunst. Von den vielen Augen der Architektur**

Alina Payne
55 **Architecture: Image, Icon or *Kunst der Zerstreuung*?**

Hans-Rudolf Meier
93 **Annäherungen an das Stadtbild**

Monika Melters
115 **Zur komplexen Bildlichkeit der Säulenarchitektur von Brunelleschi bis Behrens**

Carsten Ruhl
147 **Analogie und Typus. Aldo Rossis Architektur des Blickes**

Gerd Blum
177 **Naturtheater und Fensterbild. Architektonisch inszenierte Aussichten der frühen Neuzeit**

Johannes Grave
221 **Grenzerkundungen zwischen Bild und Architektur. Filippino Lippis parergonale Ästhetik**

Philip Ursprung
251 **Das Licht brechen: Die Augen von Herzog & de Meuron**

Ludger Schwarte
263 **Das Auge der Kathedrale: Offenbarung und Theater**

Matteo Burioni
289 **Begründungen des Gemeinwesens. Performative Aspekte frühneuzeitlicher Palastfassaden**

Cammy Brothers
321 **Michelangelo's Laurentian Library, Music and the *Affetti***

Marion Gartenmeister
353 **Karyatiden. Zu selbstreflexiven Tendenzen in der Architektur**

Henry Keazor
377 **»L'architecte fait son spectacle«. Medienrekurse in der Architektur Jean Nouvels**

Martino Stierli
423 **Die ›Er-Fahrung‹ der Stadt. Las Vegas, Film und der Blick aus dem Auto**

Mario Carpo
467 **The Photograph and the Blueprint. Notes on the End of Some Indices**

Margarete Pratschke
483 **Die Architektur digitaler Bildlichkeit – ›overlapping windows‹ zwischen Displays und gebautem Raum**

Alexander Markschies
509 **»Portugiesischer Kalkstein Creme Royal«. Architekturinschriften als Zeugnis der Autorschaft**

Michael Gnehm
533 **Hauspolitik: Architektonische Bildlichkeit und Beschreibung**

Wolfgang Kemp
585 **Kommunikationsbauten. Kommunikative Bauten? Wie kommuniziert Architektur Kommunikationstechnologie?**

607 **Autorinnen und Autoren**

Architecture: Image, Icon or *Kunst der Zerstreuung*?[1]

Alina Payne

In an anthology on images, it is perhaps not inappropriate to start with Aby Warburg, more specifically with his *Mnemosyne* – the ultimate commentary on images, the *nec plus ultra* of image and icon pathos, a *Pathosformel* in its own right.[2] Here the image reigns supreme. A collage of images, each panel itself constitutes an image presented on a flat support. Image, within image, within image, it signals the dizzying vortex in which Warburg found himself caught. In this flat world, it is as if the objects have entirely disappeared and left behind their traces, their shadows. United by the flat medium of the photographic print and of the flat panel on which they are mounted, paintings, manuscripts, sculpture, reliefs, coins, cameos and architecture illustrate the world as it reaches the eye – as images. In this construction the Arch of Constantine is of the same order as Ghirlandaio's *nympha* [Fig. 1].

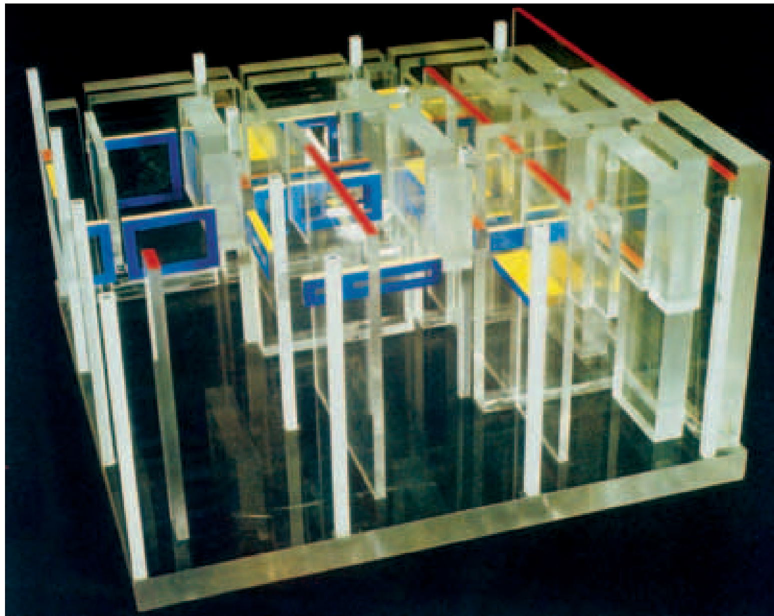
Yet, finding architecture in this context that exalts the image is ultimately unusual, and even Warburg does not often include buildings among his exempla. San Francesco in Rimini appears and one or two other architectural monuments, but only occasionally, almost parenthetically, and as single images at that. One wonders why? Does architecture play a role or not in this discourse on the

1 Aby Warburg, Mnemosyne, Plate #7.

image? Or is it on the margins? All of Warburg's images represent the human form in various poses, or *Pathosformeln*. One deduces that perhaps the Arch of Constantine is here because it is covered with reliefs and hence with bodies. Is this then the extent of architecture's place in the realm of the image – its function as a support for painted or sculpted images? Is Warburg, this master of the image, telling us that by rights architecture does not really belong in the complex and tragic (to him) economy of the image?[3] Let us then consider this question.

The problem of architecture's relationship to the image has been present as long as architecture itself, but brooding below the surface of discourse, piercing it here and there, eliciting little if any concentrated reflection. If we start *ab ovum*, in antiquity, for Vitruvius *scaenographia* (loosely translated as a perspectival representation) was an essential tool of the design process, and architecture the primary art, the support and container for the arts of figuration which it brought into order and meaning.[4] He talked of the stone ornaments as *imago* of the wooden structure but left it there, and over the centuries so did his many enthusiastic readers.[5] The question of architecture's relationship to the image *qua* image remained suspended if not unasked.

As a result, addressing it as an issue in its own right is a fairly recent development, a phenomenon of the past twenty or so years when it has come under more or less vigorous scrutiny. In some ways



2 **Peter Eisenman, House X.**

this should not seem surprising. Perhaps not coincidentally, as heroic abstraction faded into a *crepuscule des dieux* the entire field of art history turned with great energy towards the issue of representation, towards the »gaze«, »pictures« and »techniques of the observer« and more broadly towards understanding a world consumed in the form of images.[6] Architecture has not participated fully in this move. In part, the discipline of art history, from which architectural history has become increasingly alienated, has always instinctively understood the complicated, even ambivalent relationship between architecture and images. Its own trajectory, shifting from Panofskian iconography to visual theory through changing methodological tools, remained decidedly image-focused, and in this economy of the image architecture did not fit in well. In addition, starting in the later 1970s, language and linguistics emerged as seductive catalysts for rethinking definitions of architecture and generated a competing site for its discourse. Productive and less productive analogies took hold: from the semantic exercises of Peter Eisenman to the readings of the classical vocabulary in linguistic terms – as precisely that, vocabulary, as syntax, as grammar and so on – to the more recent folding of architecture as text into rhetoric, literary theory, or the history of reading, of intellectual sociability and its objects [Fig. 2].[7]

Against this background, the anthology *Architecture's Eye* with its subtitle *On the Iconicity of Architecture* proposes to venture upon more uncharted ground and open new ways of thinking about architecture and images. By adding the filter of ›icon‹ and ›iconicity‹ to the more common term ›image‹ (the Greek ›eikon‹ and Latin ›imago‹ carry both meanings) it offers a two-pronged departure point to an investigation of architecture in the economy of the image. On the one hand, it carries the implication of icon as sacred, ritualistic, and worshipped object, with all its rich implications of mystery, ›presence‹ and ›aura‹ that absorbs the gaze in its power to attract and hold. On the other, the term *eikones* (*imagines*) retains the traditional implication of an image on a flat surface, of a flat object that functions as a kind of planar vortex suspended between two realities and two materialities (that of the viewer and that of the object/entity depicted), and that gives them additional meaning from being in this liminal condition of ›in-betweeness‹ or ›passage through‹ that is manifested precisely as flatness.

Architecture and *Zerstreuung*

On the face of it, it may seem counterintuitive to be thinking of architecture, which is an art of three dimensions, in terms of flat images – certainly not in the same way as painting. Nevertheless

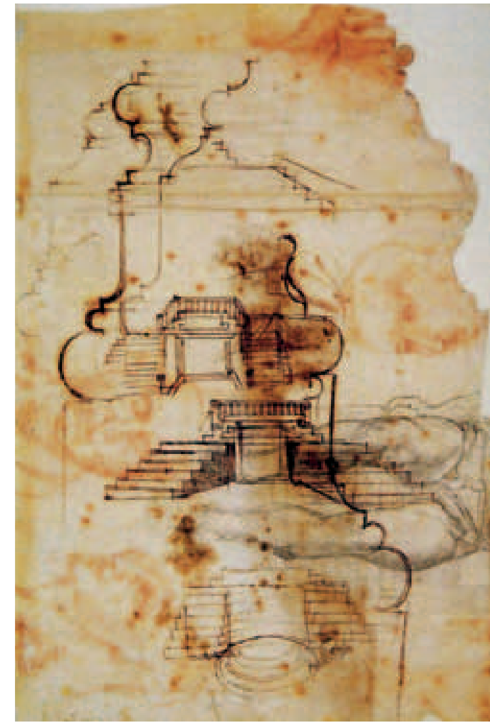
architecture has a Janus-faced quality: on the one hand, it presents itself to the eye (to the retina) as image (even at the city level where a whole ensemble is first apprehended as if a projected image upon a flat support), while on the other hand, it presents itself to the body as another body which subverts the traditional object/gaze condition, as both the gaze and the body travel inside the object and the barrier between viewer and viewed collapses. The simultaneous presence of these two experiential models for architecture is nowhere more clearly expressed than in the polar opposite yet complementary definitions of architecture to which Heinrich Wölfflin and August Schmarsow arrived at the turn of the 19th century. For Wölfflin, architecture was a body characterized by its corporeality (*Körperlichkeit*); however, it reached the eye as an image that set off a process of apperception and thus produced a very particular aesthetic experience in which the body sense of the viewer participated.[8] Fundamentally a sculpture-based reading of architecture – as Schmarsow hastened to point out – it nevertheless insisted on the image: for Wölfflin (much influenced by Adolf von Hildebrand, who exalted the ›planar‹ reading of sculpture) even sculpture was best experienced as an image, be it from a single, principal vantage point (»direkte Vorderansicht«) or in a photograph (or slide).[9] In opposition to Wölfflin, Schmarsow insisted that architecture was fundamentally a spatial art – experienced through movement – and that its treatment of space (»Hohlraum«) constituted its most characteristic feature (and also defined its individual period styles).[10] Of course, neither was wrong nor entirely right since architecture is both a carved solid body and a space-containing entity and is perceived successively and intermittently as both kinds of experiences.[11]

It is then precisely with respect to this intermittent and successive experience that Walter Benjamin's term *Zerstreuung* may be usefully applied to architecture. Although Benjamin uses *Zerstreuung* (usually translated as ›absent-mindedness‹ or ›distraction‹) to describe the condition of the viewer in relation to architecture (as an analogue for the experience of film) the term may be equally valid when applied to the object itself. [12] Architecture is never completely apprehensible except cumulatively, over time, as an endless sequence of sub-images that defy any attempt at framing or re-composition. The primary or lead image (Wölfflin's »direkte Vorderansicht«) of the ensemble dissolves into images of near and far, up and down, in front and behind and expands at the same time as they surround it like a halo or haze. The reality of perception – even of the attentive viewer, not only of the ›distracted‹ one – thus denies any sense of completeness to the apprehension of architecture. As such it exists in a condition of dispersal (a second meaning of »Zerstreuung«) or fragmentation that is in a perpetual oscillation with its static image-quality. In fact the two depend upon each other and exist in a positive tension – and the experience of a building is enhanced precisely by this oscillation between them. To be sure, among modernist critics it was codified and exalted by Sigfried Giedion as »space/time«, but his formulation placed the emphasis on the moving body and obscured the effect of the fragmentation of architecture into images.[13]

But if the experience of architecture fluctuates between an apprehension of images and the filmic effects of perambulation, can this art of *Zerstreuung* be a legitimate part of a discourse on the image? However, if experiencing architecture is not image-dependent, architecture's representation nevertheless belongs to the world of images. And the architectural drawing is the most obvious site of architecture's image. The sketches, views and orthogonal slices through a building or ensemble are so many projections onto a flat plane, so many images. Still, the drawing was not always a natural or inevitable companion to architecture. Much complex work has been done without it – in antiquity, in the Middle Ages – and even when paper became more readily available (if that were to be the counter argument) not everyone felt the drawing to be the best instrument of design. For example, in the mid-fifteenth century Leon Battista Alberti did not endorse drawings as providing the access to the truth of a building, and he made the point forcibly in his *De re aedificatoria* (c. 1450). To be sure, he recognized them to be an intermediary record of thinking, of the images constructed in the mind, but he also recognized that they proved to be deceiving and expressed a strong suspicion of the flat image in favour of the three-dimensional model.[14]

Alberti was writing at a watershed moment in the history of architectural images and his ambivalence towards drawings may well have been a response to current practice. The model, like the small architectural constructs (*Kleinarchitektur*) so often carved by the Florentine sculptor/architect in this period – be it Brunelleschi, Desiderio da Settignano, Benedetto da Maiano or Michelozzo – the portals, ciboria, pulpits, etc., were so many sites of direct interaction between hand and material [Fig. 3]. At a smaller scale than the palaces and churches these masters were normally called upon to build, the *Kleinarchitektur* nevertheless constituted an essential

3 Michelozzo and Donatello, Pulpit, Cathedral, Prato.

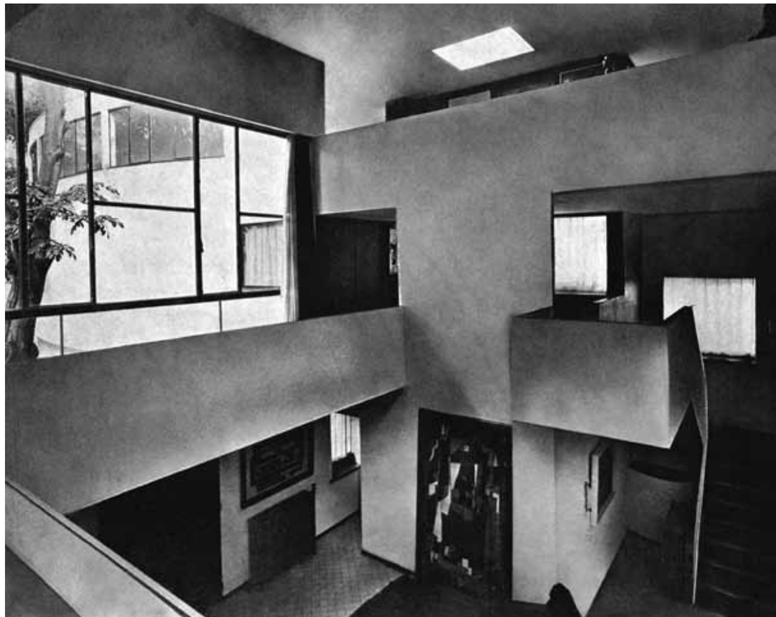


4 Michelangelo, Drawing for the Biblioteca Laurenziana.

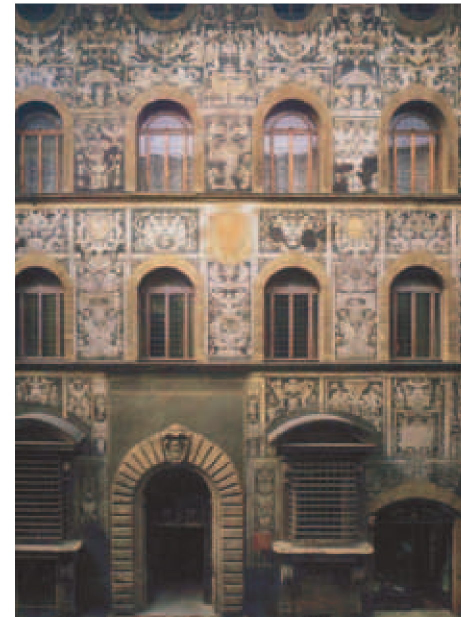
intermediary where experimentation occurred, where a new vocabulary developed and where the architect had unmediated access to the materials of his craft.[15] By contrast, the drawing caused a distancing effect: abstract, at small scale, on paper, and therefore on a support that had nothing to do with the physical nature of architecture, it was not only ambiguous as representation but, more importantly, alienated the architect from the building/object.

Almost a century later, Benvenuto Cellini expressed a similar disdain for drawings and classified them as a secondary site for architecture, all the while privileging the clay model as the principal aid to design.[16] His stance was in deliberate opposition to Giorgio Vasari's exaltation of *disegno* (whose underpinning was the drawing) as the foundation of the visual arts and their conceptual point of intersection.[17] Much to Cellini's chagrin, Vasari had made this point with great force in the introduction to *Le Vite* (1550) and went as far as to argue that the drawing was the *only* site for the architect's art, since the rest was executed by others, carpenters, masons and other craftsmen.[18] Countering this view, Cellini turned to Michelangelo, whose superlative achievements in architecture he attributed to his being a sculptor, designing in clay not on paper. Indeed, Michelangelo's sketches may be seen as the antithesis of architectural analytical drawings. Gestural, incomplete, episodic, fragmentary, collapsing the large scale and blowing up the detail, they almost re-enact the condition of *Zerstreuung*, the experience of architecture itself: the column base profile is a close-up just as it is perceived, large for being close to the viewer, close to the hand; the overall view, the ensemble, is a smaller picture, at smaller scale as seen from a distance [Fig. 4]. In addition, the layering and almost perceptible push outwards, away from the picture plane into the reality of physical objects hints at the tactile experience that architecture commands and that drawings do not permit. Both movement and the haptic escape the image and it is this limitation, this impossibility of the drawing to capture the nature of architecture as *Zerstreuung* and to explicate it fully, that pierces through these apparently random views.

Given this evident discomfort with images, might it then be that the drawing occurs in certain ways and at certain points in time because there is a specific reason (or need) for its agency? There seem to be moments in history when images and the technology



5 Le Corbusier and Pierre Jeanneret, Maison La Roche, Paris, 1925.



6 Palazzo of Bianca Capello, sgraffito decoration Bernardino Pocetti, Florence, c. 1580.

associated with them impinge with greater force upon the making of architecture and its consumption. Some such moments are, for example, the early 16th century when Raphael establishes the orthogonal set of drawings as the two-dimensional support for understanding and producing architecture and thus changes its practice, or when, much later, photography and film caused another image-based redefinition of architecture, so well exploited by Le Corbusier, whose buildings seem designed for the eye of the camera [Fig. 5];[19] or when images become the vehicle for dissemination and architecture becomes mobile and literally begins to ›circulate‹ through the medium of the printed book (in Serlio's or Palladio's treatises for example), or later, as photographic images, in the architectural periodical that emerges in the 19th century; or finally, when memory becomes an issue of particular importance in a culture, such as in the recovery-based Renaissance or the national identity-focused 19th century and when images once again push into the foreground as its most effective vehicle.[20] What, then, determines the wax and wane of architecture's relationship to the drawing?

Drawing

To begin to answer this question, a few episodes from the Renaissance could offer useful case studies precisely because the period represents a moment of high density for the image. On the one hand, the importance at this time of visual narrative and its corollary, painting, carries with it a conception of the world as pictures. Architecture responds and the bearing wall reigns supreme, not only for tectonic or plastic reasons, or only for these reasons, but also, I would argue, for being the support of painting and relief, the support of narration which can occur through images and not as effectively in any other way. The wall as canvas permits and indeed invites the consumption of architecture as a flat image, which buildings of later periods – such as the transparent modernist structures of the twentieth century, with their interpenetrating volumes and great use of voids – cannot (and did not want to) support [Fig. 6].

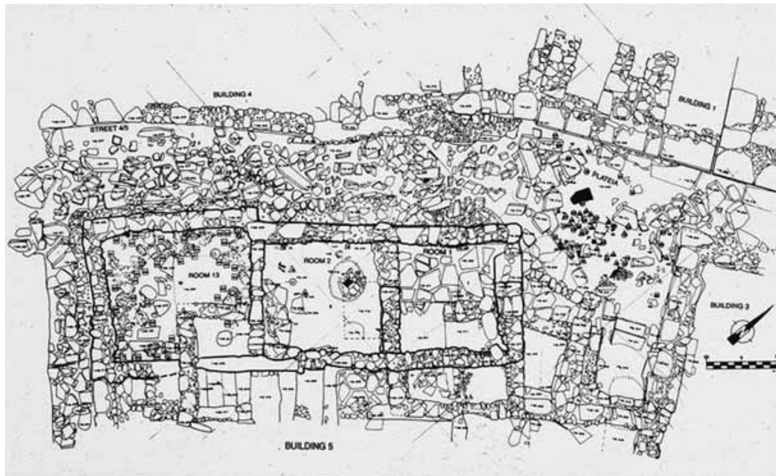
Clearly, the façade is an invitation to the drawing. If in Albertian terms the painting is a window cut into the wall and opening onto a world beyond it, in a Renaissance building the exterior wall also dissolves and becomes a »painting«: covered in frescoes, *sgraffito*, low relief or revetments, the wall as structure recedes and becomes its own drawing. Whether the plane of the wall disappears or not – and Sebastiano Serlio among others was adamantly opposed to a pictorial treatment of the wall because images would pierce it instead of reinforcing the presence of the building, and for that reason he recommended either sculpted representations or *grisailles* – its

7 **Andrea Palladio, Il Redentore, Venice.**

function as canvas remains constant.[21] Architectural display takes the form of images as the walls of the city become so many pictures, frontally presenting themselves to the viewer. The seemingly infinite planar regression implied in a façade by Palladio (such as Il Redentore) or by Buontalenti (such as Santa Trinità), dramatizes this push to project a whole building upon its frontal appearance as image [Fig. 7].

In a culture bent on remembering or at least recovering and reconstructing the past, memory and reference are critical. In this respect, too, images have the edge in the Renaissance for having tremendous recall power as quotations. A visual quotation is a recognizable part of another building – a detail, a window, even a whole façade – that blends into the new whole, but can maintain its original identity (and hence refer to its past context) at the same time. In this sense, it functions as a visual recall mechanism (intended for the knowledgeable viewer) that draws its power from the fact that the part can be singled out and functions independently importing the ›image‹ of another whole within a new ensemble. The image-as-quotation – in the case of Palladio's churches, the temple front – leaves its mark upon architecture.[22] Once again such a strategy requires a frontal, flat support and a conception and presentation of architecture-as-picture.

But the recovery and reconstruction mentality in the Renaissance was fuelled even more profoundly by the encounter with the broken remains of antiquity. And this encounter required revising the set of tools that architects traditionally operated with. »As heaven is my witness, it was a more demanding task than I could have imagined when I embarked on it. Frequent problems in explaining matters, *inventing terms,* and handling material discouraged me and often made me want to abandon the whole enterprise. […] I felt it the duty of any gentleman or any person of learning to save from total extinction a discipline that our prudent ancestors had valued so highly.«[23] So spoke Alberti of his task of understanding ancient architecture and asserting the new: a leap into the unknown, a leap of language, of sheer ability to examine and catalogue, to assimilate and interpret. What he was confronting was the *actual* condition of *Zerstreuung*, the archaeological chaos that Rome had become – and it is the anxiety it produced, the need to recompose and control what seemed to defy the imagination that is the context for the invention of the orthogonal drawing set.

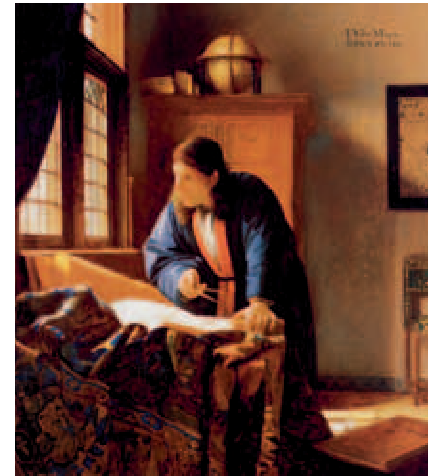


8 State Plan, Building 5, Palaikastro, Crete.

Indeed, some sixty years after Alberti, Raphael spoke in very much the same vein in his now famous letter to pope Leo X:

> »Holy Father, there are many who, measuring with their small judgment the great things that are written of the Romans' arms and of the city of Rome regarding its marvellous artifice, richness, and ornaments, sooner estimate these to be fabulous rather than true; however, to me it seems otherwise, because, judging the divinity of those ancient spirits from the relics that can still be seen among the ruins of Rome, I do not think it beyond reason to believe that many of those things that to us seem impossible to them seemed extremely easy.«[24]

When subsequently Raphael describes the orthogonal drawing set – the plan, elevation and section, the three slices at right angles through the building, which thus maintain true scale and are therefore measurable and which already Alberti had recommended (*De re aed*., II, 1) – it is primarily as a tool to reconstruct Rome, to pull it into order since the reality of the ruins lies outside of his experience and hence beyond what can be imagined.[25] In this instance, the more gestural, experiential perspective drawing can fuel the imagination but cannot function as a reconstruction tool. Only the orthogonal set is well suited for reassembling, for deducing a whole from discrete and isolated information and measurements that don't necessarily add up into an obvious picture since they exceed contemporary knowledge. Vitruvius's *De architectura* is so popular at this time precisely because his algorithmic procedure to lay out the temple also offers the reverse path: from the parts to the whole and from the whole back to the parts. While this explains the fascination with his book, it also explains the frustration when his instructions turned out to be so many blind alleys. As Raphael intuited, the scattered fragments that must be organized into some order so as to become legible need a grid to facilitate their positioning, a grid that allows information to be added as it becomes known and other missing information to be deduced based on the configuration of this framework. And it is the orthogonal slices through the building that provide this interconnected grid upon which data can be stored and the puzzle painstakingly worked out. It is only by establishing securely what there is, rather like in a state plan in contemporary archaeological practice, that the missing can begin to be imagined [Fig. 8]. One could argue that reconstruction was often equal to invention and that it was not that different in the end from designing a new building. But I would like to insist on the difference: the Renaissance architect's departure point, wherever it may have lead and however far it may have strayed from the reality of the ruin to an imaginary edifice, was nevertheless the few stones and details, the few walls still standing that ignited the imagination. In short, it started from a physical reality and needed to go through the drawing phase, it needed to be translated into another medium – paper – and become a flat image, in order to be understood, processed and appropriated.



9 Jan Vermeer, The Geographer, Städelsches Kunstinstitut, 1668–69.

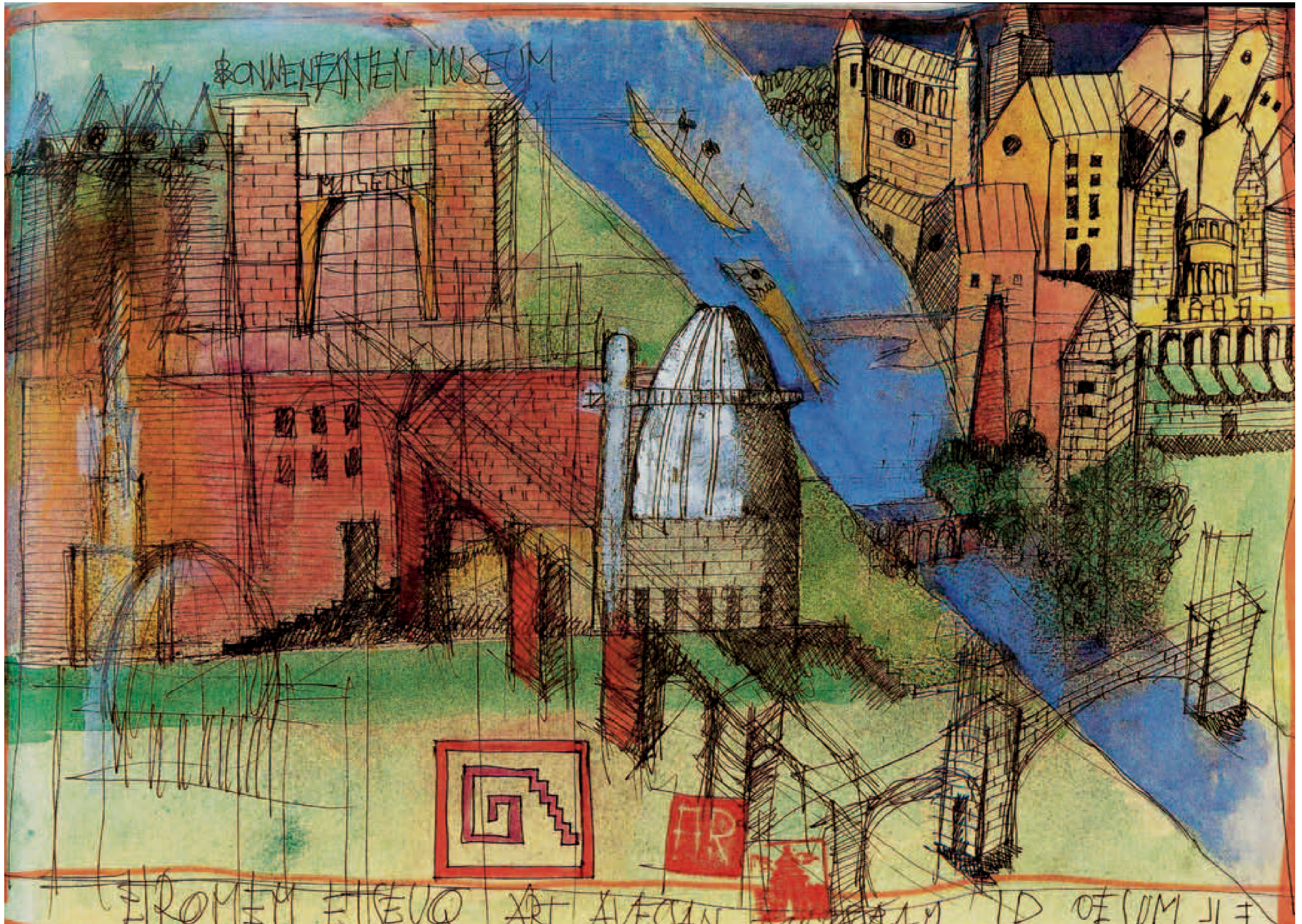
It is then not the printed image of the book that turns architecture into a movable and flat commodity to be consumed as

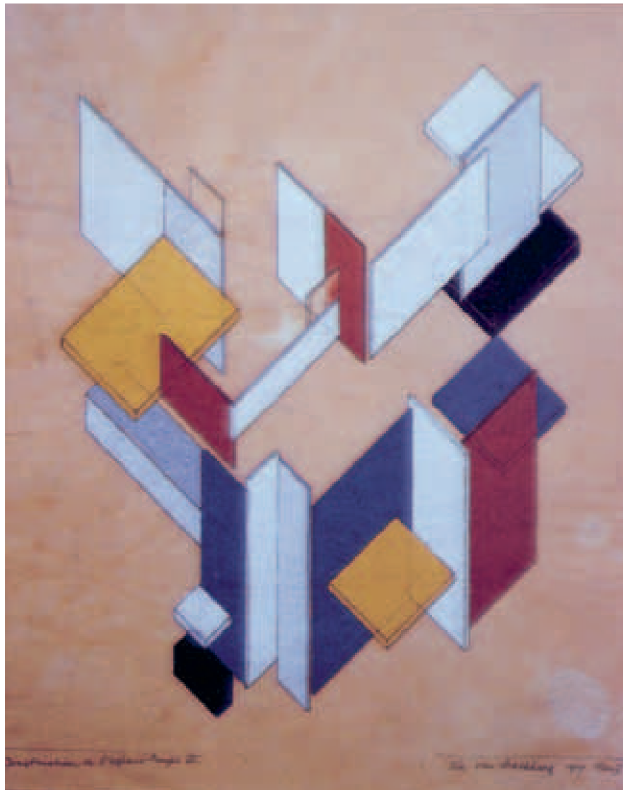
10 Theodor Galle after Johannes Stradanus, Lapis polaris, magnes, 17th c.

11 Giorgio Vasari, Cosimo I Planning the Attack against Siena, Palazzo della Signoria, Florence, 1565.

pictures, but more profoundly a way of thinking about architecture in two-dimensional terms, a way of thinking that seeks to control the *Zerstreuung* of the archaeological site. It is a case that may be productively compared to Bruno Latour's description of Louis Pasteur's invention of the vaccine and of the laboratory as a site of power.[26] In his example, Pasteur's success in establishing the rabies vaccine as a practice was based on him taking the reality of Rosette, the gentle cow in the green pasture, and transporting it into the laboratory in the abstract form of a serum in a test-tube. This is when information can be controlled and when it can persuade – Rosette becomes data, scientific fact. The scientist in his laboratory gaining control over his data is not that different from the architect in his study, coming to grips with the disorder of architecture, forcing it into an order that only abstraction can allow. What is painstakingly dug up and collected needs to be processed and it is the study and the tabletop where drawings, gems, plans, maps, and coins can be looked at and/or produced that permit the selective sorting of material. Small gems and large buildings meet each other on the study table as equals: as scale collapses and the building has shrunk and lies within the power of the viewer, their relative sizes cease to matter. Thus what is large and overwhelming on site is reduced in scale and produces a position of power over the miscellanea that otherwise threatens the ability to synthesize. Likewise, what in the field is a broken fragment becomes a piece of an unsuspected and marvellous whole once it is processed in the study. The tool that acts upon it and the site where it happens engenders this transformation – and the drawing is its medium. As was the case for Vitruvius's Corinthian column capital which was an assemblage of flowers and basket, of leaves and objects which only acquired its identity once its heterogeneity was effaced by the bronze into which it was cast by Callimachus, so was the case of the ruins.[27] Once they were brought into order upon paper, at a scale that facilitated control, they ceased to be a heterogeneous assemblage from various sources and scales and became transformed by the medium on which they were drawn into smoothed out, homogeneous visions or images. The product obtained on the architect's desk was rather like André Breton's definition of the marvellous as the encounter of an umbrella and a sewing machine on an operating table.[28]

In final analysis, the architect's worktable is not that different from Warburg's panels for the *Mnemosyne*: a flat surface upon which heterogeneous information is assembled, thus bringing it within the ordering power of the viewer. Vermeer's *Geographer* or Stradanus's alchemist-cum-scientist, both closeted in their studies, convey that necessary moment of isolation and abstraction that accompanies the making of images – reduced, flat representations of a reality that lies just this side of an open window and that can only be admitted partially, in edited form, since it threatens to overwhelm otherwise [Fig. 9 and 10]. Perhaps the most poignant image





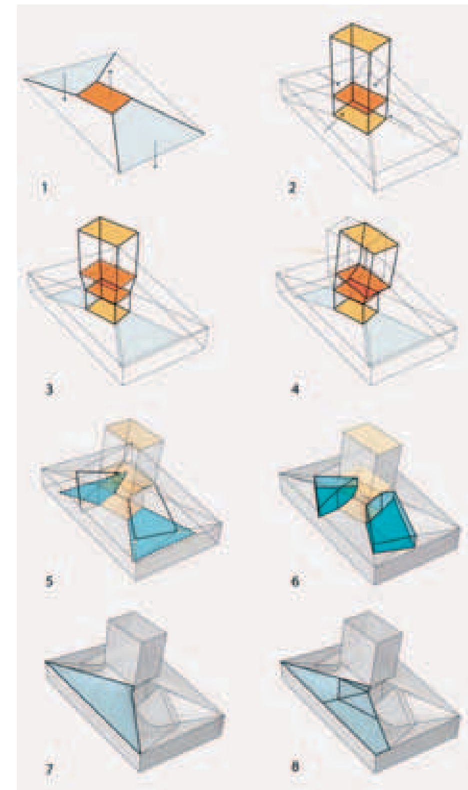
12 Theo van Doesburg, Construction de l'espace-temps III, Paris, 1929.

13 Previous page: Aldo Rossi, Drawing for the Bonnefanten Museum, 1990–94.

of this isolation to obtain control and closest to that of an architect in his study, is Giorgio Vasari's portrait of Cosimo I de' Medici as he plans his military campaign against Siena in quiet solitude, bent over his desk: the city is reduced to model size and the location of his forces – of tents and soldiers, horses and supplies – is transformed into the abstraction of lines drawn by the compass as images on paper [Fig. 11].

The failure of images and the death of drawing?

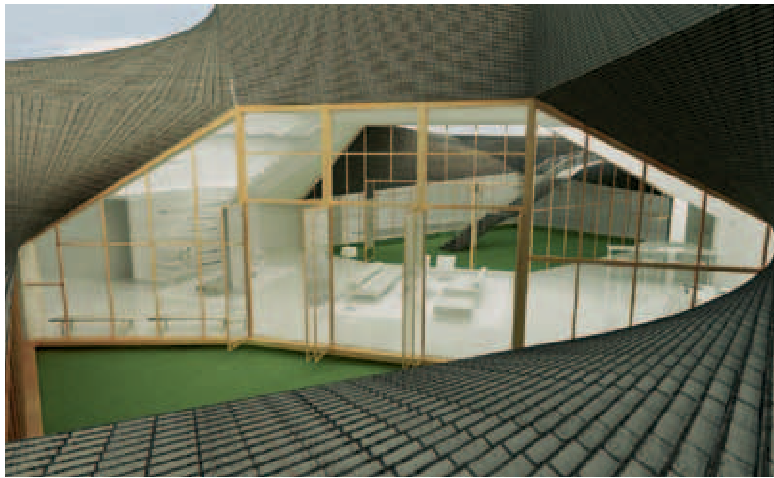
And yet, the orthogonal set produces another *Zerstreuung*, a planar one this time, as the three-dimensional object it creates (or re-creates) is collapsed into its three flat components. For all its evident success in the centuries that followed, the drawing set-as-image may well have been a stage in the development of architecture, and a stage we may be moving out of now for better or for worse. The early 20th-century-appearance of the axonometric drawing already signalled both a discomfort with the analytical decomposition



14 Scott P. Cohen, Sketch, Ordos House, Inner Mongolia, 2008.

produced by the orthogonal set, and a will to keep the true dimensions (the advantage of the orthogonal set) but reassert the integrity of the object, albeit on paper [Fig. 12]. Nowadays the move away from drawings is even more pronounced. Indeed, after a last, nostalgic and intense engagement with drawings in the 1980s/90s – as evident for example in the work of Aldo Rossi – one may talk today about the »death of drawing« [Fig. 13]. In the world of the contemporary practicing architect, the hand-made drawing is increasingly becoming obsolete, a nostalgic device or anachronism, and the generation now coming to professional maturity may have been the last to draw, as it was also probably the last to write by hand.

The computer-generated image is not a drawing for all the superficial resemblances between them. As a three-dimensional representation that allows infinite blow-up, reduction, mobility (rotation) and concentration, it is a virtual model, resolving and revealing on its own the problematic transitions and connections as well as the opportunities without input from the designer and



15 Scott P. Cohen, View, Ordos House, Inner Mongolia, 2008.

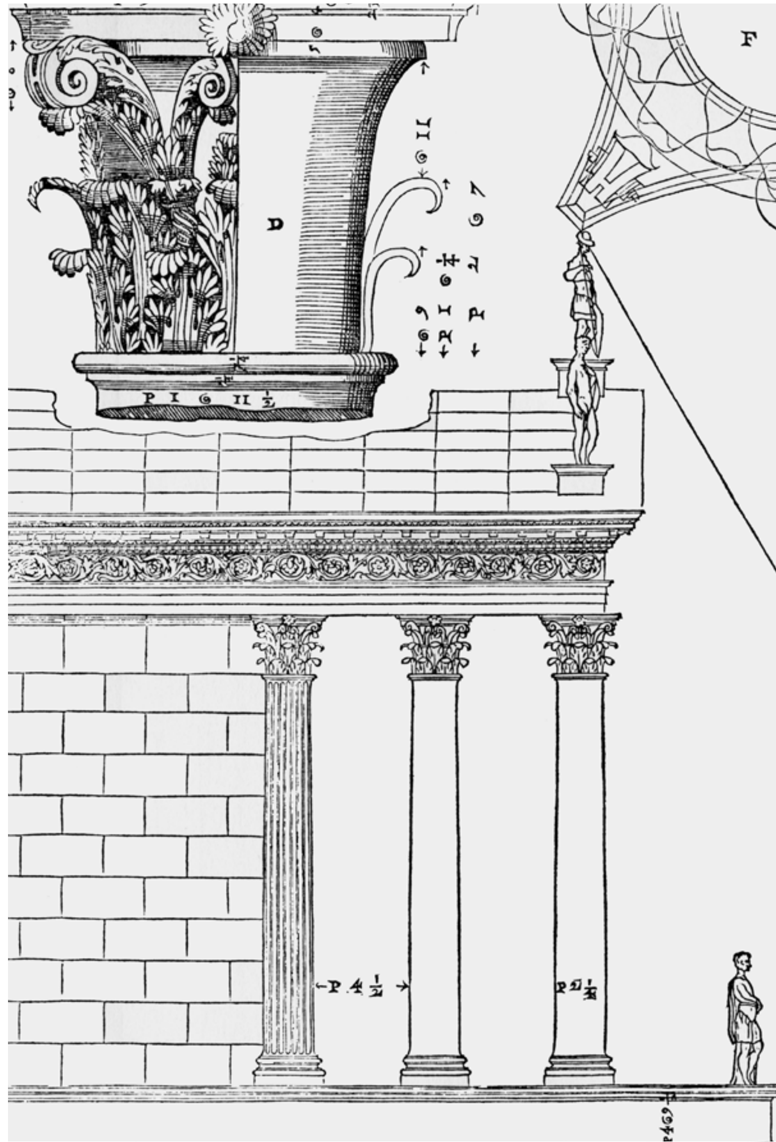
transforms the architect into a spectator of his own work. The vocabulary used to describe computer imaging, the very lexical field to which it belongs, bears no relation to the vocabulary traditionally associated with drawing. Verbs like orbit, zoom, enter, occupy, simulate, and nouns like rotation, computational models, manipulation, parametric modelling testify to a fundamental shift in the nature of architectural representation. The spontaneity of hand agency has disappeared as has the materiality of the drawing and the choreography of the hand on paper has given way to the manipulation of the keyboard. Ironically at a time when architecture is dependent more than ever on images – indeed, for most viewers, the flat image is the only means by which an architect's work can be known – the practice of drawing is dying.

The sketch – the traditional location of experimentation and doodling – has also virtually disappeared as the computer model looks and is far more finished at every stage than a sketch ever was [Fig. 14]. In addition, as both the act of designing and the finished product are in three dimensions, the stage of the plan has lost its significance as a design tool. Instead it has become a consequence, something to be derived from the three-dimensional object and is only useful if elements occur in plan [Fig. 15]. Even printers do not print any more on paper but produce three-dimensional objects [Fig. 16]. Likewise, shop-drawings, those detailed representations produced for and by the fabricators during construction and based on the working drawings supplied by the architect, tend to be axonometrics more often than not, since complex fastenings and

16 Shim/Sutcliff, Resin printout of door handle, Stewart House, Toronto, 2005–08.

connections cannot be effectively conveyed in orthogonal projection. This also explains the perennial need for full-scale models of details – another practice that has always signalled the need to subvert the drawing and the flat image. This situation hints at the fact that in architecture there are two moments – the analytical moment and the composition moment – and that they may be antithetical to each other. Indeed, the analytical moment is essentially a *decomposition* moment, when the whole is sliced up into its component parts by way of orthogonal (flat) views. One needs drawing, the other less so, and just as it is a great consumer of images, architecture forever tries to escape them.

Indeed, as much as the flat image has been invoked, used, consumed, even exalted, it has also been a burden. And so, there are moments of resistance, of tension and discomfort that signal the limit of the image's usefulness for architecture and they are not all to be found in the technologies of today's practice. This discomfort may not be expressed in so many words in any text or letter, but it is palpable in the images themselves as they tell their own stories. One such moment can be sensed already in Palladio's illustrations for his *Quattro Libri* (1570) – from the supremely analytical, clear, crisp and precise images of his orders, they almost turn into parodies of themselves when he illustrates the Roman ruins of Pola [Fig. 17]. The conventions are the same, but the assemblage is bizarre, discontinuous, pushing the frame around the image to its limits, to bursting – suggesting with its crowded, collapsing scales, vertiginous transitions and almost surreal juxtapositions and inversions



17 Andrea Palladio, Temple at Pola, Quattro Libri, 1570.

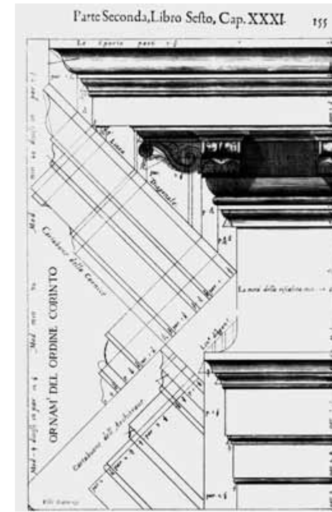
of large and small, the experience of *Zerstreuung* itself. Indeed, what Palladio shows is strangely closer to the real experience of the archaeological site than a full series of orthogonal drawings would be. Elliptically referred to, the object of his image is ultimately vision itself and how it operates in the face of *Zerstreuung*. In a way, like Michelangelo's drawings of the Laurenziana, his images of Pola show near and far, detail and overall aspect, underside and distant view all in one frame. It is as if the frame designates the archaeological site and collects within it all that can be experienced in the jumble of stones that make it up [Fig. 18].

For all its utility and apparent Olympian objectivity, the drawing as image seems to have become a burden – it cannot convey the experience of the site, or of the effort involved in its reconstruction. And even if it does, it is in a back-handed way, by

18 **Ruins at Pola, Alinari.**

creating an image that is expressive of information overload and barely intelligible. For all its quality of order, Palladio's treatise and its images ultimately also reveal their limitations. A nearly contemporary image of the column base and cornice from Scamozzi's treatise *L'idea dell'architettura universale* (1615) conveys a similar unease – the impossibility of the image to represent movement and the experience of a sharply projecting cornice in space [Fig. 19]. His aggressive diagonals and the suggestion of rotation, as well as his effort to subvert the effect of a flat projection, go a long way towards explaining what Palladio does not, but his efforts also show where the image fails him.

Another example of tension vis-à-vis the image is provided by a scientist and would-be dilettante architect and critic, Teofilo Gallaccini active across the 16th and 17th centuries in Siena.[29] As he begins to understand architecture as structure, and structure in terms of mechanics, of forces active within materials, he is at pains to visualize and to make visible to others – to draw – something that cannot be seen. Without the abstract conventions and graphing abilities that would follow in the 18th century and beyond as physics and calculus developed and provided the tools to understand such phenomena, he turns to the default analogy with the human body [Fig. 20]. But in his efforts to visualize the stresses experienced by structures, and to explain forces in movement, he also pushes against the limits of representation. The traditional architectural analytical drawings cannot include such images and Gallaccini's



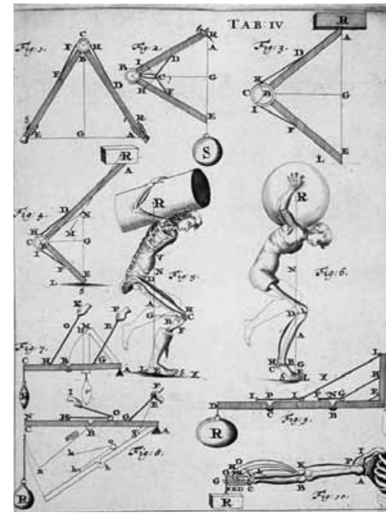
19 **Vincenzo Scamozzi, Cartabone dell'Architrave Corinto, L'Idea dell' architettura universale, 1615.**

bodies in movement, and like those of the scientist Giovanni Borelli, they remain marginal, lyrical moments in the path of understanding and of no real practical use [Fig. 21].[30]

Icon/Model

It is true that both Alberti and Cellini warned of the pitfalls of images, though perhaps not in these terms. What they initiated, however, was a *paragone* (comparison) with the architectural model, which is indeed the real *paragone* that involves architecture in the Renaissance. It is this confrontation then that reveals one other way in which architecture uses images.[31] The model stands apparently in opposition to the flat image (and certainly this is what Alberti and Cellini mean) for being materially present and three-dimensional. It looks like the building, albeit much smaller, and in some ways it is even truer than the drawing as it controls the *Zerstreuung* effect. But it is also a *simulacrum* and in that sense it too participates in the discourse of the image, as representation.

Perhaps it is here that the category icon/iconicity, the second meaning contained in the term *eikones*, comes in most useful. Models are objects and so are icons, in the narrower sense of the word – they are not pieces of paper or even canvas, but thick wooden supports, encased in silver, gold, in complicated and often heavy frames. They also do not normally tell stories and the narrative that is so characteristic of pictures more generally is absent in the true icon. Instead, the icon acts upon the viewer through the power of



20 Teofilo Gallaccini, Della natura del cerchio, ms, Biblioteca Comunale, Siena.

21 Giovanni Borelli, De motu animalium, Lyon 1685.

its physical presence, its aura, its relic quality and holiness, not through a *tableau vivant* that invites or at least suggests imitation or empathy.[32]

The image, the icon and the representation are not one and the same thing although they have much in common. While the image is a representation, a representation need not be two-dimensional; indeed, the icon is also a three-dimensional object (and it is its object quality that enhances its cultic power). Thus, under certain conditions, a model, as representation but also as object, can partake of the qualities of an icon. And under certain conditions the model can be understood as *both* image and icon. The tabernacle at San Miniato by Michelozzo may be read as the representation of a larger, monumental piece of architecture – a coffered vault supported by four columns – and as such, although not strictly speaking a model, it partakes of the model's qualities. However, at the same time, it is possible to see it also invested with ritual qualities as a shrine within a shrine, rather like an icon-as-altarpiece ensemble [Fig. 22].

However, architecture can enter the domain of the icon by way of the model in yet another guise. Normally the model is at small scale as it is meant to guide the architect, the masons and the patrons along the path that leads from project to building. But beyond these practical uses, it can also be an object of display and function as a collector's item in a cabinet of curiosities: like a miniature, it can be possessed, loved, handled and admired for its souvenir value or miniature scale and exquisite craftsmanship much like the automata of

22 Michelozzo, Tabernacle, San Miniato al Monte, Florence.

the 18th century or the Faberge eggs of the following.[33] But the model can also be full scale. Without stretching the meaning of model too far, the full scale reconstructions such as the Pergamon Altar or the fragments of the temple of Artemis at Magnesia or Athena at Priene in the Pergamon Museum in Berlin, or the pavilions of new industries of architects like Peter Behrens, or of vernacular architecture threatened with extinction and displayed in the Great Exhibitions, stand as images of their other realities from which they have been uprooted [Fig. 23]. They exist in a kind of limbo between image and reality, oscillating between the two – they are reality because they are the actual stones at actual scale; but they are images because in the museum or exhibition they become illustrations, they represent a historical moment, an archaeological site or an idea about science and progress that cannot be transported. And, framed inside the museum, they become objects of cultural worship as so many icons.

Indeed, where architecture or its image becomes hieratic and most icon-like is in the museum [Fig. 24]. Isolated from their surroundings, either as models or as fragments from larger wholes, architectural displays such as the Pergamon altar invite hushed, reverent worshipping. Thus displayed as an object, architecture participates in the sacralisation of art through the museum which took hold in the 19th century. Alongside other precious objects in their *vitrines*, architectural models, plaster casts and fragments become the source of wonder like holy objects or relics, and so enter the arena of the icon – worshipped, fetishized, they are conduits of the ›presence‹

23 **Peter Behrens, Pavilion of Linoleum Manufacturers, Exhibition Dresden, 1906.**

24 **Pergamon Altar, Pergamon Museum, Berlin.**

and carriers of ›aura‹. Once again like Pasteur's cow in the meadow, archaeological *Zerstreuung* – the reality of the site – lacks the cultic quality that is only acquired once the objects have been placed in their shrines, in the museums.

The most extreme case of architecture as icon is that implied in the »museum without walls« that Riegl analyzes in his paradigm-setting *Denkmalkultus* article.[34] The real building, on the real site, becomes the object of preservation, of cultic attention and therefore of display as if isolated from its surroundings. The monument – one that acquires this denomination rather than being merely building – is illuminated as if by a halo or a spotlight that has been trained on it precisely by this acknowledgement of its historical and aesthetic value beyond that of its everyday use. Effectively lifted out of its environment it is propelled on the larger-than-life stage of the city. As if surrounded by a hush, the building thus singled out intensifies the spectator's experience and behaves *as if* an icon, as an image or representation of something that once was and is no longer because the building does not live in that time anymore – because it is a vehicle to memory and identity like a flag or a national anthem. The building thus becomes a monument, belonging to ›now‹ only tenuously, because it belongs to a narrative about ›then‹. An image from the sixteenth-century *Speculum Romanae Magnificentiae* like a nineteenth-century photograph such as *St Trophime* by Edouard-Denis Baldus, commissioned by the Commission des Monuments Historiques and closer to Riegl's own time, each conveys in its own way this monument-as-icon effect [Fig. 25]. The church of St. Trophime is not isolated as it appears on the photograph: Baldus blocked out the neighbouring buildings so as to give it a more monumental appearance just as and because the accolade of »monument historique« invoked the feeling of isolation and iconicity, the hush of the museum.[35] Thereafter photograph and monument morph and determine how the building is experienced by its viewers. And the architectural pilgrimage is its result. Perennially engaged in by tourists and architects these circuits through the city from monument to monument or across country to particular sites bear witness to the aura that iconic buildings acquire and enact the transformation of the city into a museum.

If we accept the proposition that not only the drawing and the traditional printed image, but the architectural model and fragment, even the whole building can be read as image and icon, what does it tell us about the place of architecture in the world of *eikones* and of Warburg's *Menmosyne*? What is ultimately most striking here is not that it can and does participate in this discourse, but that representation emerges as architecture's tragic dimension. A profound necessity, it is also a strait jacket, a limitation that generation upon generation of architects has sought to escape and reconfigure. The oscillation between the condition of *Zerstreuung* present at all times in architecture – be it on site, in the physical experience of a building or on the worktable itself – and the desire to contain it, is not satisfied in the representation. On the one hand the drawing

25 Eduard-Denis Bladus, St. Trophime, Canadian Centre for Architecture, Montreal, 1853.

alludes to and reinforces architecture's disorder; on the other, the miniaturization of the model/*Kleinarchitektur* and the iconic museum exhibit dramatize a deep urge to grasp and control it as object. From *scaenographic* to cinematic to object in the museum, architecture's relationship to images and icons remains difficult and fraught, yet constantly changing, full of possibilities as architecture constantly reinvents itself. In the end then, might Warburg's plates showing representations of *Pathosformeln* also hint at a way to conceptualize the relationship between architecture and its images? Might it be possible to understand the pathos of the subject matter – and in this case of architecture – as being conveyed through the pathos of its very means of representation?

Endnotes

1 This essay is based on the opening address I delivered at the conference »Das Auge der Architektur« held at the Schaulager in Basel, September 20 – 22, 2007. I am grateful to Andreas Beyer, Matteo Burioni and Johannes Grave for giving me opportunity to think through an issue that had attracted me for some time. The ideas presented at Basel were further developed during a series of lectures held at the Institut National de l'Histoire de l'Art (INHA) and the EPHE in Paris, June 2008. I wish to thank Sabine Frommel for issuing the invitation and the audiences for comments and questions. Finally, I am especially grateful to David Kim, who offered incisive criticism and suggestions with characteristic generosity and to Brigitte Shim and Howard Sutcliffe (Toronto) and Scott P. Cohen (GSD, Harvard) for lengthy and enjoyable discussions about computer modeling and its consequences for practice. Research on this essay was made possible by support from the Alexander von Humboldt-Stiftung and Max-Planck-Gesellschaft Prize 2006.

2 Aby Warburg, *Mnemosyne. L'atalante delle immagini*, ed. Martin Warnke (German edition) and Maurizio Ghelardi (Italian edition), London/Turin 2002, p. 27.

3 Georges Didi-Huberman, *L'image survivante. Histoire de l'art et temps des fantômes selon Aby Warburg*, Paris 2002; Philippe-Alain Michaud, *Aby Warburg et l'image en mouvement,* Paris 1998.

4 Marcus Vitruvius Pollio, *De architectura*, trans. F. Granger, Cambridge (Mass.) 2002, p. 24 – 25 (Vitr., 1, 2, 2).

5 Vitruv 2002 (as in note 4), pp. 202 – 205 (Vitr., 4, 2, 5).

6 Classic contributions remain Norman Bryson, *Vision and Painting: The Logic of the Gaze*, New Haven (Conn.) 1983; David Freedberg, *The Power of Images*, Chicago 1989; Jonathan Crary, *Techniques of the Observer*, Cambridge (Mass.) / London 1990; William J. T. Mitchell, *Picture Theory*, Chicago/London 1994; for the larger discussion in philosophy and political science on the consumption of images see Jean Baudrillard, *Simulacres et simulation*, Paris 1981. More recently see interdisciplinary projects straddling art and science (led by Horst Bredekamp at the Humboldt University and Lorraine Daston at the Max Planck Institute in Berlin) or straddling art and philosophy (such as the eikones project led by Gottfried Boehm in Basel).

7 See Peter Eisenman, *House X*, New York, 1982. For a review of art history's vexed relationship to architecture see Alina Payne, Architectural History and the History of Art: A Suspended Dialogue, in: *Journal of the Society of Architectural Historians* 59/60 (1999), pp. 292 – 299. Among the few contributions to the discourse of architecture and images is the exhibition *Architecture and Its Image. Four Centuries of Architectural Representation*, eds Eve Blau and Edward Kaufmann (exh. cat. Canadian Centre for Architecture, Montreal), Montreal 1989. However, even here the issues related to architecture's place in the economy of the image were not addressed head-on since the focus was on representation and its tools. A provocative reading of architectural representation from the perspective of projection was offered by Robin Evans, *The Projective Cast*, Cambridge (Mass.) 1995. For a more recent attempt to open a discussion about architecture and images, see Christy Anderson (ed.), *The Built Surface*, vol. 1: *Architecture and the Pictorial Arts from Antiquity to the Enlightenment*, London 2002; and Karen Koehler (ed.), *The Built Surface*, vol. 2: *Architecture and the Pictorial Arts from Romanticism to the Twenty-First Century*, London 2002.

8 Wölfflin developed this idea in both his dissertation and his *Habilitation*: »Körperliche Formen [architecture] können charakteristisch sein nur dadurch, dass wir selbst einen Körper besitzen.«; Heinrich Wölfflin, Prologomena zu einer Psychologie der Architektur, in: Heinrich Wölfflin, *Kleine Schriften*, ed. Joseph Gantner, Basel 1946, p. 15. See also Heinrich Wölfflin, *Renaissance und Barock* [1888], Basel/Stuttgart 1965, p. 56: »Jeden Gegenstand beurteilen wir nach Analogie unseres Körpers […]. Und nun ist klar, dass sie [die Architektur] als Kunst körperlicher Massen nur auf den Menschen als körperliches Wesen Bezug nehmen kann.«

9 Heinrich Wölfflin, Wie man Skulpturen aufnehmen soll, in: *Zeitschrift für bildende Kunst* 7 (1896), pp. 224 – 248 and 8 (1897), pp. 294 – 297. He argues against an »in the round« experience of free-standing sculpture and refers specifically to Hildebrand (*Das Problem der Form*, 1893) for the »Normalstandpunkt« from which a sculpture must be seen (and photographed) and defines it as »direkte Vorderansicht« (1896). His conclusion in 1897 is categorically in favor of a »flächenhafte Auffassung« of sculpture. Schmarsow's critique of Wölfflin occurs in August Schmarsow, *Zur Frage nach dem Malerischen*, Leipzig 1896, p. 23.

10 »Die Architektur ist in ihrem eigensten Wesen Raumgestalterin.«; Schmarsow 1896 (as in note 8), p. 14. Schmarsow developed these ideas in two contra-Wölfflin publications *Zur Frage nach dem Malerischen*, Leipzig 1896, and *Barock und Rokoko oder Über das Malerische in der Architektur*, Leipzig 1897.

11 For a history of this debate between Wölfflin and Schmarsow and the sculpture aesthetic in German art history more generally see Alina Payne, Portable Ruins: the Pergamon Altar, Heinrich Wölfflin, and German Art History at the *fin de siecle*, in: *Res* 53/54 (2008), pp. 166 – 189. That Wölfflin's and Schmarsow's views were complementary is confirmed by Paul Frankl, who drew on both to arrive at his reading of architecture; see Paul Frankl, *Principles of Architectural History*, Cambridge (Mass.) 1986, p. 1.

12 »In contrast the distracted mass absorbs the work of art. This is most obvious with regard to buildings. Architecture has always represented the prototype of a work of art the reception of which is consummated by a collectivity in a state of distraction.« Benjamin goes on to contrast »rapt attention« (for other works of art) with »noticing the object in incidental fashion«; Walter Benjamin, The Work of Art in the Age of Mechanical Reproduction, in: Walter Benjamin, *Illuminations*, ed. and trans. Hannah Arendt, New York 1968, p. 239 – 241.

13 Sigfried Giedion, *Space, Time and Architecture,* Cambridge (Mass.) 1941.

14 Leon Battista Alberti, *On the Art of Building in Ten Books*, ed and trans. Joseph Rykwert et al, Cambridge (Mass.) 1988 pp. 33 – 37, 313, 315 (*De re aed.*, II, 1, IX, 8 and IX, 10). On his position on drawings and models see Alina Payne, Alberti and the Origins of the *paragone* between Architecture and the Figural Arts, in: Arturo Calzona, Francesco Paolo Fiore et al. (eds), *Leon Battista Alberti teorico delli arti*, Florence 2007, vol. 1, pp. 347 – 368.

15 Alina Payne, Materiality, Crafting and Scale in Renaissance Architecture, in: *Oxford Art Journal* 32 (2009), pp. 365 – 386.

16 Cellini makes this point in several locations, but perhaps most famously in his letter responding to Benedetto Varchi's query on the *paragone* between sculpture and painting. In enumerating the features that establish the superiority of sculpture over painting, he argues that Michelangelo was such a good architect because he was first and foremost a sculptor: he designed by way of clay models and it was from these that drawings were then derived. Benedetto Varchi and Vincenzo Borghini, *Pittura e Scultura nel Cinquecento*, ed. Paola Barocchi, Livorno 1998, p. 83.

17 On Cellini's general antagonism and competitive position with respect to Vasari because he had downplayed bronze sculpture in his *Vite*, see Marco Colaretta, Benvenuto Cellini ed il destino dell'oreficeria, in: Alessandro Nova and Anna Schreurs (eds), *Benvenuto Cellini: Kunst und Kunsttheorie im 16. Jahrhundert*, Vienna 2003, pp. 161 – 169.

18 »e tutti questi profili o altrimenti che vogliam chiamarli, servono cosi all'architettura e scultura come alla pittura; ma all'architettura massimamente, percio che I disegni di quella non sono composti se non di line, *il che non e altro, quanto a l'architettore, ch'il principio e la fine di quell'arte* perche il restante, mediante I modelli di legname tratti dale line, non e altro che opera di scarpellini e muratori.« [my emphasis]; Giorgio Vasari, *Le Vite De' Più Eccellenti Pittori Scultori e Architettori. Nelle Redazioni Del 1550 e 1568*, ed. by R. Bettarini and P. Barocchi, Florence 1966, vol. 1, p. 112.

19 For this argument see Beatriz Colomina, Le Corbusier und die Fotografie, in: Stanislaus von Moos (ed.), *L'Esprit Nouveau: Le Corbusier und die Industrie 1920 – 1925*, Zurich/Berlin 1987, pp. 32 – 43.

Endnotes/Figures

20 In early modern literature, the classic locus on the power of images to recall the dead and the distant is Leon Battista Alberti, *De pictura* (II, 25): »Painting contains a divine force which not only makes absent men present, as friendship is said to do, but moreover makes the dead seem almost alive.«; Leon Battista Alberti, *On Painting*, trans. John R. Spencer, New Haven/London 1966, p. 63.

21 The relevant passage is in Book IV of Sebastiano Serlio, *Tutte l'opere d'architettura et prospetiva* [1619], Ridgewood (NJ) 1964, p. 191v. For a discussion of this passage see Monika Schmitter, Falling Through the Cracks: The Fate of Painted Palace Facades in Sixteenth-Century Italy, in: Anderson 2002 (as in note 7), pp. 130–161.

22 For an early reading of the temple front (as well as of the triumphal arch) as ›motifs‹ with reference to Alberti and Palladio (albeit in the context of a discussion on the ›uses of tradition‹ rather than quotations), see Rudolf Wittkower, *Architectural Principles in the Age of Humanism* [1949], New York 1971.

23 Alberti 1988 (as in note 14), p. 154 (*De re aed.*, VI, Introduction).

24 My translation from the transcription published in Francesco P. Di Teodoro, *Raffaello, Baldassar Castiglione e la Lettera a Leone X*, Bologna 2003, pp. 133–145.

25 On the invention of the orthogonal set see especially Christoph Thoenes, Vitruv, Alberti, Sangallo. Zur Theorie der Architekturzeichnung in der Renaissance, in: Andreas Beyer et al. (eds), *Hülle und Fülle. Festschrift für Tilmann Buddensieg*, Alfter 1993, pp. 565–584.

26 Bruno Latour, *The Pasteurization of France*, Cambridge (Mass.) 1988, pp. 79–85.

27 Vitruv 2002 (as in note 4), p. 208–209 (Vitr., 4, 1, 10).

28 André Breton, *Manifeste du surrealisme. Poisson soluble*, Paris 1924.

29 Alina Payne, Architectural Criticism, Science and Visual Eloquence: Teofilo Gallaccini in Seventeenth-Century Siena, in: *Journal of the Society of Architectural Historians* 58 (1999), pp. 146–169.

30 Giovanni Borelli, *De motu animalium*, Rome: Angelus Bernabò 1680.

31 On the tradition of the *paragone* among the arts in the sixteenth-century in Italy and the absence of architecture from these debates see Payne 2007 (wie Anm. 14).

32 On the function of icons see particularly the work of Gerhard Wolf, *Schleier und Spiegel. Traditionen des Christusbildes und die Bildkonzepte der Renaissance*, Munich 2002, and Hans Belting, *Bild und Kult. Eine Geschichte des Bildes vor dem Zeitalter der Kunst*, Munich 1990.

33 On the model as souvenir see Karl Schmitt-Korte, Die Grabeskirche als Souvenir, in: Ulrich Schneider u. a. (ed.), *Der Souvenir: Erinnerung in Dingen von der Reliquie zum Andenken*, Cologne 2006, pp. 90–94.

34 Alois Riegl, Der moderne Denkmalkultus, sein Wesen, seine Entstehung, in: Alois Riegl, *Gesammelte Aufsätze*, ed. Karl M. Swoboda, Augsburg/Vienna 1929, pp. 144–193.

35 On the impact of the Commission des Monuments Historiques on architectural photography see Barry Bergdoll, A Matter of Time: Architects and Photographers in Second Empire France, in: Malcolm Daniel (ed.), *The Photographs of Edouard Baldus: Landscapes and Monuments of France* (exh. cat. Metropolitan Museum of Art and Canadian Centre for Architecture), New York 1994, pp. 99–119. On Baldus's photographs of St. Trophime particularly see Malcolm Daniel, Edouard Baldus, artiste photographe, in: ibid., p. 32.

Figures

1 Aby Warburg, Mnemosyne, Plate # 7.
2 Peter Eisenman, House X.
3 Michelozzo and Donatello, Pulpit, Cathedral, Prato.
4 Michelangelo, Drawing for the Biblioteca Laurenziana.
5 Le Corbusier and Pierre Jeanneret, Maison La Roche, Paris 1925; aus: Willy Boesiger and Hans Girsberger, *Le Corbusier 1910–65*, Zurich 1967, p. 36.
6 Palazzo of Bianca Capello, sgraffito decoration Bernardino Pocetti, Florence, c. 1580.
7 Andrea Palladio, Il Redentore, Venice; Bruce Boucher, *Andrea Palladio. Der Architekt in seiner Zeit*, Munich 1994, fig. 190.
8 State Plan, Building 5, Palaikastro, Crete.
9 Jan Vermeer, The Geographer, Städelsches Kunstinstitut, 1668–9; Ben Broos and Arthur K. Wheelock Jr. (eds), *Vermeer. Das Gesamtwerk*, Stuttgart 1995, p. 171.
10 Theodor Galle after Johannes Stradanus, Lapis polaris, magnes, 17th c.; Marjolein Leesberg and Huigen Leeflang, *The New Hollstein Dutch and Flemisch Etchings, Engravings and Woodcuts 1450–1700. Johannes Stradanus (Part III)*, Amsterdam 2008, fig. 324/I.
11 Giorgio Vasari, Cosimo I Planning the Attack against Siena, Palazzo della Signoria, Florence, 1565; Umberto Baldini, *Giorgio Vasari. Pittore »senza stento«*, Florence 1994, p. 127.
12 Theo van Doesburg, Construction de l'espace-temps III, Paris, 1929.
13 Aldo Rossi, Drawing for the Bonnefanten Museum, 1990–94.
14 Scott P. Cohen, Sketch, Ordos House, Inner Mongolia, 2008.
15 Scott P. Cohen, View, Ordos House, Inner Mongolia, 2008.
16 Shim/Sutcliff, Resin printout of door handle, Stewart House, Toronto, 2005–8.
17 Andrea Palladio, Temple at Pola, Quattro Libri, 1570; Gino Pavan, *Il Rilievo del Tempio d'Augusto di Pola*, Trieste 1972, tav. VIII.
18 Ruins at Palo, Alinari.
19 Vincenzo Scamozzi, Cartabone dell'Architrave Corinto, L'Idea dell'architettura universale, 1615.
20 Teofilo Gallaccini, Della natura del cerchio, ms, Biblioteca Comunale, Siena.
21 Giovanni Borelli, De motu animalium, Lyon 1685.
22 Michelozzo, Tabernacle, San Miniato al Monte, Florence.
23 Peter Behrens, Pavilion of Linoleum Manufacturers, Exhibition Dresden, 1906.
24 Pergamon Altar, Pergamon Museum, Berlin.
25 Eduard-Denis Bladus, St. Trophime, Canadian Centre for Architecture, Montreal, 1853.

Autorinnen und Autoren

Andreas Beyer, Direktor des Deutschen Forums für Kunstgeschichte, Paris.

Gerd Blum, Professor für Kunstgeschichte an der Kunstakademie Münster/Hochschule für Bildende Künste.

Cammy Brothers, Associate Professor an der School of Architecture der University of Virginia.

Matteo Burioni, Wissenschaftlicher Assistent am Institut für Kunstgeschichte der Ludwig-Maximilian-Universität, München.

Mario Carpo, Associate Professor of Architectural History am Georgia Institute of Technology und Vincent Scully Visiting Professor of Architectural History an der School of Architecture der Yale University.

Marion Gartenmeister, Assistentin am Lehrstuhl für mittelalterliche Kunstgeschichte der Universität Freiburg i. Ü.

Michael Gnehm, Privatdozent am Departement Architektur der ETH Zürich.

Johannes Grave, Stellvertretender Direktor des Deutschen Forums für Kunstgeschichte, Paris.

Henry Keazor, Lehrstuhl für Kunstgeschichte an der Universität des Saarlandes.

Wolfgang Kemp, Professor für Kunstgeschichte am Kunstgeschichtlichen Seminar der Universität Hamburg.

Alexander Markschies, Lehrstuhl für Kunstgeschichte an der RWTH Aachen.

Hans-Rudolf Meier, Professor für Denkmalpflege und Baugeschichte an der Fakultät Architektur der Bauhaus-Universität Weimar.

Monika Melters, Privatdozentin am Lehrstuhl für Theorie und Geschichte von Architektur, Kunst und Design, Technische Universität München.

Alina Payne, Professor of History of Art and Architecture an der Harvard University.

Margarete Pratschke, Assistentin an der Professur für Wissenschaftsforschung der ETH Zürich und Mitarbeiterin des NFS Bildkritik eikones.

Carsten Ruhl, Professur für Theorie und Geschichte der modernen Architektur, Bauhaus-Universität Weimar.

Ludger Schwarte, Professor für Philosophie an der Kunstakademie Düsseldorf.

Martino Stierli, Oberassistent am Institut für Geschichte und Theorie der Architektur der ETH Zürich.

Philip Ursprung, Professur für Kunst- und Architekturgeschichte am Institut für Geschichte und Theorie der Architektur der ETH Zürich.