

TACK on-line teaching module. Vectors of tacit knowledge.

Case study. Warburg architectures/Resonance

How does architecture become meaningful?

Many of the discussions within the TACK project have focused on how knowledge is created and shared within limited groups – the “communities of tacit knowledge” in the title of the project have often been assumed to be communities of practice. This teaching module considers the question of how broader communities create shared understandings about architecture that are tacit more than they are explicit. It explores the significance of such shared understandings both in the production of individual architectural projects (cases where tacit sharing effects the disposition of materials and organisations that shape human habitat) and in the consumption of architecture more generally (considering at a broader level how architecture becomes meaningful in a cultural context). The module does not offer definitions of tacit knowledge *per se* – the student is referred to other modules in the TACK collection for this. But it does attempt to understand the value of certain phenomena that appear to have a tacit quality: whose existence implies a shared understanding among diverse actors in a situation, although this may never be directly admitted or discussed.

The module consists of a set of materials related to one historical case study and is structured as follows:

- A text document that introduces the individual case, that raises the broader questions it addresses, that reflects on the implications of the case and that provides a set of leading questions, based on this reflection, encouraging the student to reflect further on how this case informs a more general enquiry about the nature of tacit knowledge in architecture.
- Two audio-visual presentations that gives the overall narrative of the case.
- A link to an archive of reference material in pdf format that relates to the case.

Learning outcomes:

At the conclusion of this module the student will have:

- Reviewed a concrete case with implications for a discrete discussion about the nature of tacit knowledge in architecture.
- Reflected on the implications of that case for a broad discussion about the nature of tacit knowledge in architecture.
- Encountered archival information related to the study of architectural history
- Encountered reflective practice to the study of architecture history.

Course duration:

The course consists of introductory materials, two lectures of 45 minutes versus 1 hour and 15 minutes, each of which requests that the student reflect and investigate packages of associated questions, and a concluding argument, which also suggests the investigation of associated questions. Total study time required: 3-4 hours.

This course is provided by the PhD Programme at the Oslo School of Architecture and Design. Course responsible: Tim Anstey. Please contact tim.ainsworth.anstey@abo.no with questions.

Warburg architectures/Resonance

How does architecture become meaningful?

INTRODUCTORY DOCUMENT

At the start of the twentieth century the German art historian Aby Warburg saw a connection between the circulation of images, the emotive power of physical movement, and the development of material cultural production. Warburg was very much a child of the circulatory nineteenth century, of its obsession with movement and its saturation by media. As an errant member of a powerful banking family, he inherited a banker's interest in questions of circulation and a capacity for identifying new contexts where investment might lead to unexpected profit. Where his four brothers concerned themselves with maintaining the position of the family business (Max Warburg became chairman and Fritz acted as a director of M. M. Warburg & Co. in Hamburg) and with developing family and international financial ties in the United States (Paul Warburg's expertise lay behind the establishment of the American Federal Reserve, and Felix married into the Loeb banking family and became managing partner of the New York house of Kuhn, Loeb & Co.), the eldest brother Aby's concerns were with cultural capital. The markets he exploited provided new kinds of evidence about the past, particularly about the relationship between Eurasian antiquity and the European Renaissance, reappraising the survival of ancient traits in the cultural production of later epochs. Warburg's contribution to the history of art is undoubted. The frameworks for cultural interpretation evolved within the Institute he founded in 1921 to develop *Kulturwissenschaft* (cultural science) retain their relevance today.



Reading/lecture room, KBW Photographic album, 1926. Warburg Institute Archive.

In trying to make sense of the past and in interpreting what was at stake in the production of visual art through history, Warburg and his collaborators became sensitive to the material lives of images; that is to say, to the biographies of material artifacts that carried representations (books, prints, paintings; sometimes tapestries or domestic furnishings) from one place to another. He called these phenomena *Bilderfahrzeuge*—“image-vehicles”—capturing in an elegant way the combination of imaginary association and material construction that his idea of cultural transference implied. This style of thought made it possible to plot “flows” of cultural information across time and space, explaining the transfer of visual imagery and shifting, interpretive associations. It also highlighted a connection between the motive and the emotive quality of travelling images. Warburg was interested in how antique representations of movement and force, textual and visual, would recur in later artistic expression, attributing a special potency to representations that, in whatever way, signalled action through frozen movement. Such examples of the vivid afterlives of ancient *Pathosformeln* were powerfully explored in his studies of antique imagery in fifteenth-century Florentine painting, exemplified through a series of iconic female figures: a nymph bearing a basket in Ghirlandaio’s *Birth of St. John the Baptist* or Botticelli’s figurations in the *Primavera* and the *Birth of Venus*. In all of them motion and emotion were joined.



Sandro Botticelli, *Primavera*, ca. 1480. Uffizi Gallery, Florence. Wikipedia Commons.

A principal tool for tracking the kind of gossamer connections on which this view of cultural history relied was a book collection whose organization could be moulded and redistributed to bring out hidden alignments. Warburg’s library was a device for such spatial tracking, and it had, from its first inception, a spatial dimension that was unusual. Perhaps inevitably, this spatial aspect became, as Warburg’s enquiries were formalized and the book collection expanded, an architectural one. An attention to the way spatial trajectories had generated influence across wide swathes of history—on how *Bilderfahrzeuge* travelled—produced a concordant concern with the way the library itself was spatialized, and on how movement was implied in its organization,

fostered through sequences and juxtapositions. Warburg's itinerant library, its captivating idiosyncrasies and radical relational order, have proven enduring objects of fascination across disciplines. In all this work the special character of the institution's architectural spaces has been tacitly admitted, but never consistently studied as a whole.



Spiral staircase, KBW. Photographic album, 1926.

This course module on the vectors of tacit knowledge in architecture focuses on a highly pragmatic and physical dimension of the Warburg library's history: the built spaces that have housed the holdings, their disparate manifestations in their motive and emotive aspects, and the necessary reinscription of this architecture at various addresses. By unearthing drawings (spanning from sketches to annotated technical drawings), letters, and accounts of these architectural projects in the archives of the Warburg Institute and the collections of the Royal Institute of British Architects, and by triangulating our observations with the archival work already carried out on a few of the buildings (particularly that of Tilmann von Stockhausen, Uwe Fleckner, and Elizabeth Sears on the Kulturwissenschaftliche Bibliothek Warburg, the Planetarium in Hamburg, and the Warburg Institute's premises in London), the course uncovers, in these materials, traces of tacit understandings that extended beyond the designers of the various works with which the Warburg Institute engaged, and which suggest a continuing and directed design agency by the clients themselves. The concern of this agency is not quite aligned with the usual preoccupations that design or building professionals bring to architecture: this is not evidence of a closed system of tacit knowledge shared by practitioners by which they are able to practice their craft. Rather, it suggests another dimension that relates to how architecture "means" in a larger cultural context. The course presents the raw materials of a set of researches around the library of the Warburg Institute, and invites the student to speculate on their implications in this broader frame.

The evidence

Architecture and interiors were crucial for Aby Warburg's interrogation of culture, a focus that was at once intellectual, visceral, historical and contemporary. As well as understanding how architecture had shaped systems of cultural orientation in the past, for Warburg and his followers this involved a continual process of architectural commissioning in the present. In Warburg's native Hamburg, a bespoke 1926 building accommodated his remarkable library, while a dramatic exhibition, completed in 1930, spatialised his ideas around cosmology. After Warburg's death, and the forced emigration of the library to London, this pattern of architectural commissioning continued. Projects designed by the avant-garde 1930s practice Tecton, a further series of exhibitions, and finally the 1950s construction of a new permanent home for the Warburg Institute in Bloomsbury, all provided opportunities for expressing the relationship between architecture, intellectual order and memory. Lectures 1 and 2 of the course interrogate aspects of this architectural history and suggest the implication of this single case for a broad understanding of how tacit understandings inform both architectural actions and architectural meaning.

Lecture 1 *The tenant's furniture.*

<https://backdoorbroadcasting.net/2019/11/tim-anstey-the-tenants-furniture-re-inscribing-the-warburg-institute/>

Lecture 1 provides an introduction to the building histories associated with the Warburg Institute. The lecture was given at the Warburg Institute in London in November 2019.

You are invited to listen to this lecture and then to answer the following questions about it, related to the question of how tacit understandings inform architecture during the process of a building's conception, construction and use:

Question package 1:

In the examination of the histories of architectural commissioning associated with the Warburg library, it becomes evident that the formal relationships which were reinscribed in the library layout at the various addresses the Institute occupied were part of a wider pattern, finding strong resonances in Aby Warburg's structures of thought. The scholars of the Warburg Institute furnished their buildings with collections of familiar objects that moved from one site to another. At the same time, they furnished them with particular nuances of meaning through rituals of translation and relocation, and through the recirculation of these objects. What results is an architecture that one could call "vehicular," in as much as the impact of these architectural projects was connected to the way in which things—image-things as well as material-things—were carried about, relocated, remounted, shifted, and re-shifted.

Who understood and who created this meaning? Was its articulation dependent or removed from the agency of the architects involved? Could these meanings have been evolved by the scholars of the Warburg Institute alone, without their involvement in projects of architectural commissioning? Could it have been introduced by the architects involved into projects outside those involving the Warburg Institute?



Exhibition “Warburg Models at Blaker”, Guttorm Guttorgaardsarkiv, Blaker, Norway, 2021.

Lecture 2 *Warburg Models at Blaker and in London*

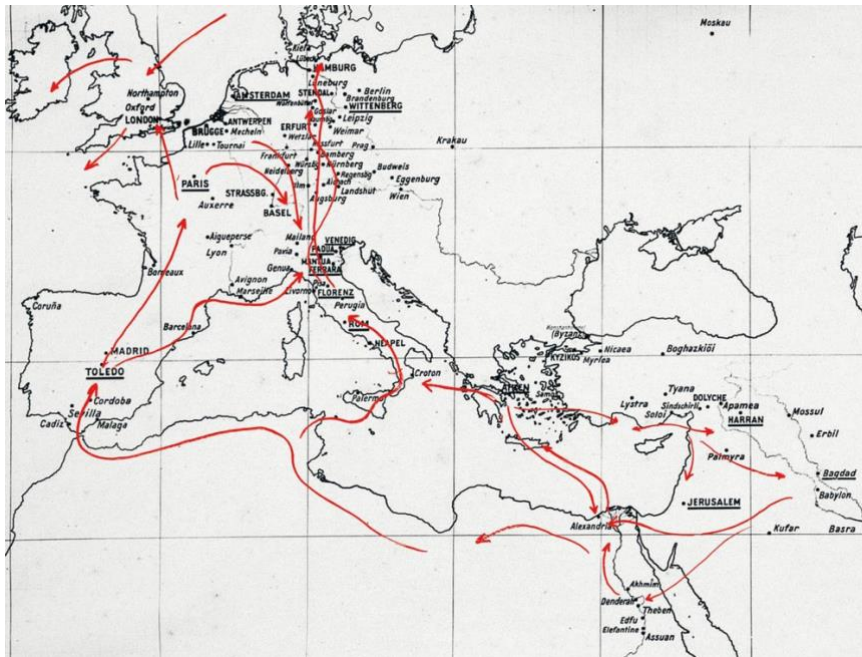
<https://youtu.be/Jz1KbfTRL7s>

Lecture 2 presents research into the buildings of the Warburg Institute made by a Masters Student seminar conducted at the Oslo School of Architecture and Design 2020–2021, which was presented by invitation at the Warburg Institute in May 2021. You are invited to listen to this lecture and then to answer the following questions related to what mechanisms were at play in the creation of shared tacit understandings in the Warburg Institute’s architectural projects, and in the architectural students’ project to study them:

Question package 2:

In pursuing a course of study on the architecture of the Warburg Institute, architectural students made use of systems of architectural representation to uncover historical narratives and to highlight how tacit understandings from diverse actors had informed the production of a series of buildings. Evidently their own concerns and experiences in conducting research in order to make the models informed both the kind of insight they gained and their understanding of the significance of that insight.

What mechanisms were involved in creating the meanings discovered in the Warburg Models project? Were the Warburg Scholars more concerned with original invention or do they appear to have been preoccupied with reinscription? What aspects of the designs became central in the stories told by the students? Did these concern architectural form or detailing per se, or were they also concerned with repetitions and translation? What appears to have provided the energy to the students (and to their subjects of study) in the invention of all this architectural material? What status does the architectural model have in this investigation of a tacit, shared and open understanding of the resonance of architectural design?



“Wanderstraße” showing cultural exchange between north-south, east-west. Facsimile of map of Europe and the Middle East, marked up with routes showing the flow of cultural ideas, images, and artifacts. Prepared at the Kulturwissenschaftliche Bibliothek Warburg, 1928 and redrawn by Roberto Ohrt und Axel Heil, 2021. Warburg Institute Archive/Roberto Ohrt and Axel Heil.

Further speculation

Aby Warburg’s instincts about how cultural memory operated—in a series of echoes, sometimes unexpected, where scenes or objects from the past suddenly create oscillation in later periods and in geographically remote locations, almost like rogue waves traveling across oceans—provides a model for how movement, gesture, and repetition in action might be central for creating vibrant architectural experience. It also talks directly to the question of tacit, shared understanding in the creation of architectural meaning.

The story of the Warburg Institute’s involvement in architecture suggests that, through the movement of materials and images, architecture establishes a kind of “resonance” within a cultural context. But how could such resonance be created? How could an architecture of movement interface, or interfere, with a potential to carry meaning that is often connected specifically to qualities of stasis, to the endurance of built compositions through time?

The subject is inherently mnemonical. Resonance is a state of activation in which form, memory, and—in literal terms—material performance are linked. It requires action—the percussive beat, the sound wave, breath—and an answer to that wave produced in a container: a vessel, or a string, or a sounding board. This answer is dictated by something the resonant artifact recognizes, already “knows” in some material sense. In a musical instrument we might call this a “material memory,” one that dictates the frequency of reactive movement caused by the elastic nature of the structure, the span of the string, the thickness of the construction. In a sounding vessel or room, we would call it “material form”: the relation between geometry, volume, and surface reflectivity. But whether in material memory or material form, we find an implication of repetition: achieving resonance requires intelligence that what has happened before will happen again. In resonance things are re-membered.

In applying that metaphor to a condition of cultural experience, one must be open to several suggestions. Partly that certain kind of actions, or signals, impart energy to a cultural system to awake resonance. Partly that some cultural equivalent might be found for the kind of material intelligence residing in a fiddle string: that cultural subjects have a predisposition to react to certain kinds of signal in certain kinds of way. Partly, that the condition in which this resonance can occur is, in whatever way, connected with repetition. Accepting the need to justify the assumption that such a cultural “material intelligence” might exist (and the idea world projected by Aby Warburg provides something very similar to this), the claim that architectural meaning can be carried through movement suggests a history of echoes, of actions whose repetitive nature is either openly admitted or dimly sensed.

Question package 3:

Where does the tacit emerge in this projection about how architecture operates? Is there an aspect in the idea of a shared cultural memory, and of shared cultural interpretation, that relies on a tacit dimension? Or is all common understanding always the result of patterns of sharing that are explicit at some point? What, finally might be a connection between the tacit, the resonant and the repeated in a model of the cultural impact of architecture?

TACK on-line teaching model. Vectors of Tacit Knowledge: Resonance. August 2023.

Archive and source material:

To assist further study related to this module, the following references are provided. A large selection of these is available in pdf format at the following location:

<https://ahocloud.box.com/s/yxojqtt916kyeq2jrxww75no04kr70fo>

- Anstey, Tim. "Moving Memory: The Buildings of the Warburg Institute." *Kunst og Kultur* vol.103, no. 3 (October 2020): 172–185.
- Anstey, Tim and Mari Lending. *Warburg Models. Buildings as Bilderfabriken*. Berlin: Hatje Cantz, 2023.
- Bing, Gertrud. "The Warburg Institute." *Library Association Record* 35, no. 4 (August 1934): 262–266.
- Bright, Arthur Aaron. *The Electric-Lamp Industry: Technological Change and Economic Development from 1800 to 1947*. New York: Macmillan, 1949.
- Brush, Kathryn. *Vastly More Than Brick and Mortar: Reinventing the Fogg Art Museum in the 1920s*. New Haven, CT: Yale University Press, 2004.
- Didi-Huberman, Georges. *The Surviving Image: Phantoms of Time and Time of Phantoms: Aby Warburg's History of Art*. Translated by Harvey Mendelsohn. University Park: Penn State University Press, 2017.
- Finch, Mick. "The Technical Apparatus of the Warburg Haus." *Journal of Visual Art Practice* 15, nos. 2–3 (2016): 94–106.
- Fleckner, Uwe, and Peter Mack, eds. *Vorträge aus dem Warburg-Haus. The Afterlife of the Kulturwissenschaftliche Bibliothek Warburg*. Berlin: De Gruyter, 2015.
- Forster, Kurt W. "Introduction" to Aby Warburg, *The Renewal of Pagan Antiquity*, trans. David Britt, 1–75. Los Angeles: Getty Research Institute for the History of Art and the Humanities, 1999.
- Forster, Kurt W. "Aby Warburg: His Study of Ritual and Art on Two Continents," translated by David Britt, *October* 77 (1997): 5–24.
- Ginzburg, Carlo. "Une machine à pensée," *Common Knowledge* 18, no. 1 (Winter 2012): 79–85.
- Gombrich, Ernst H. *Aby Warburg: An Intellectual Biography*. London: Warburg Institute, 1970.
- Gordon, Donald. "In memoriam Gertrud Bing." In *In memoriam. Gertrud Bing: 1892–1964*. Edited by Ernst Gombrich. London: Warburg Institute, 1965. Reprinted in Monica Centanni and Daniela Sacco, eds., *Gertrud Bing. Erede di Warburg. La rivista di engramma* 177 (November 2020): 132.
- Guidi, Benedetta Cestelli, and Nicholas Mann, eds. *Photographs at the Frontier: Aby Warburg in America 1895–1896*. London: Merrell Holberton, 1998.
- Jenkins, Jennifer. *Provincial Modernity: Local Culture and Liberal Politics in Fin-de-Siècle Hamburg*. Ithaca, NY: Cornell University Press, 2002.
- Mazzucco, Katia. "Images on the Move: Some Notes on the Bibliothek Warburg Bildersammlung (Hamburg) and the Warburg Institute Photographic Collection (London)." *Art Libraries Journal* 38, no. 4 (2013): 16–24.
- Meyer, Anne Marie, and Salvatore Settis. "Warburg continuatus. Descrizione di una biblioteca." *Quaderni storici*, n.s. 20, no. 58 (April 1985): 5–38.
- Michaud, Philippe-Alain. *Aby Warburg and the Image in Motion*. New York: Zone Books, 2004.
- Powell, Kenneth. *Powell & Moya*. London: RIBA Publications, 2009.
- Powers, Alan. *In the Line of Development: F. R. S. Yorke, E. Rosenberg and C. S. Mardall to YRM*

TACK on-line teaching model. Vectors of Tacit Knowledge: Resonance. August 2023.

- 1930–1992. Chichester: Wiley Academy, 2003.
- Saxl, Fritz. “The History of Warburg’s Library (1886–1944).” Appendix to Ernst H. Gombrich, *Aby Warburg: An Intellectual Biography*, 325–238. London: Warburg Institute, 1970.
- Sears, Elizabeth. “Keepers of the Flame: Bing, Solmitz, Klibansky and the Continuity of the Warburgian Tradition.” In *Raymond Klibansky and the Warburg Library Network: Intellectual Peregrinations from Hamburg to London and Montreal*, ed. Philippe Despoix and Jillian Tamm, 29–57. Montréal: McGill/Queens University Press, 2018.
- Sears, Elizabeth. “The Warburg Institute, 1933–1944. A Precarious Experiment in International Collaboration.” *Art Libraries Journal* 38, no. 4 (2013): 7–15.
- Stockhausen, Tilmann von. *Die Kulturwissenschaftliche Bibliothek Warburg: Architektur, Einrichtung und Organisation*. Hamburg: Dölling & Galitz, 1992.
- Warburg, Aby. *Bilderatlas Mnemosyne: The Original*. Edited by Roberto Ohrt, Axel Heil, Bernard Scherer, Bill Sherman, and Claudia Wedepohl. Berlin: HKW, Haus der Kulturen der Welt; London: Warburg Institute; Berlin: Hatje Cantz Verlag, 2020.
- Warburg, Aby. “From the Arsenal to the Laboratory.” Translated by Christopher D. Johnson, annotated by Claudia Wedepohl. *West 86th* 19, no. 1 (2012): 106–124.
- Warburg, Aby. *The Renewal of Pagan Antiquity*. Translated by David Britt. Los Angeles: Getty Research Institute for the History of Art and the Humanities, 1999.
- Warburg, Eric M. “The Transfer of the Warburg Institute to England in 1933,” appendix to *The Warburg Institute Annual Report, 1952–1953*. London: University of London, 1953.
- Wedepohl, Claudia. “Mnemonics, Mneme and Mnemosyne: Aby Warburg’s Theory of Memory.” *Bruniana and Campelliana* 20, no. 2 (2014): 385–402.
- Wedepohl, Claudia. “Why Botticelli? Aby Warburg’s Search for a New Approach to Quattrocento Italian Art.” In *Botticelli Past and Present*, ed. Ana Debenedetti and Caroline Elam, 183–202. London: UCL Press, 2019.
- Wind, Edgar. “The Warburg Institute Classification Scheme.” *Library Association Record*, 4th series, 2 (May 1935): 193–195.
- Wittkower, Rudolf. *Architectural Principles in the Age of Humanism*. London: Warburg Institute, 1949. Reprint, London: Wiley, 1988.
- Yates, Frances A. *The Art of Memory*. London: Routledge & Kegan Paul, 1966.
- Yates, Frances A. *Giordano Bruno and the Hermetic Tradition*. London: Routledge & Kegan Paul, 1964.
- Yates, Frances A. *Theatre of the World*. Chicago: University of Chicago Press, 1969.