Conserving Twentieth-Century Built Heritage

A Bibliography

Edited by
Susan Macdonald and Gail Ostergren
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The Getty Conservation Institute works internationally to advance conservation practice in the visual arts—broadly interpreted to include objects, collections, architecture, and sites. The GCI serves the conservation community through scientific research, education and training, model field projects, and the dissemination of the results of both its own work and the work of others in the field. In all its endeavors, the GCI focuses on the creation and delivery of knowledge that will benefit the professionals and organizations responsible for the conservation of the world’s cultural heritage.

Cover:
The Getty Center plaza looking from the North Building toward the J. Paul Getty Museum as seen in 1999.
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CHAPTER 1

Introduction to the Bibliography

One of the objectives of the Getty Conservation Institute (GCI)’s Conserving Modern Architecture Initiative (CMAI) is to produce key texts that address issues critical to the conservation of modern architecture. To commence this work, the GCI has prepared “Conserving Twentieth-Century Built Heritage: A Bibliography” as a resource for conservation practitioners working with twentieth-century built heritage. This bibliography includes texts of international, national, and regional significance, but does not seek to be fully comprehensive at a global level and generally excludes highly localized guides or product documents. It is organized as a subject bibliography and is structured so that users can easily expand upon it as needed to include specific local references or additional subject categories (such as twentieth-century landscape architecture design). This bibliography is focused on English-language literature pertaining to the conservation of twentieth-century buildings and structures, although a few non-English-language texts that contain abstracts in English have been included.

This work builds upon earlier bibliographies, including those that appeared in:


Some of the bibliographies cited above may initially appear to be more extensive than the present work. When conservation of twentieth-century heritage first started to gain momentum, very limited literature was available on the subject. The bibliographies produced within the English Heritage volumes, for example, captured as many documents as could be identified at the time. Since the mid-1990s, there has been considerably more scholarship on this issue resulting in a number of conference proceedings, articles, and books. The GCI has sought to incorporate this more recent literature, while excluding many of the editorials and short journal commentaries that were present in the earlier volumes.
Structure of the Bibliography

The bibliographic references in “Conserving Twentieth-Century Built Heritage” fall into two major subject categories—history and background on twentieth-century built heritage (chapter 2) and conservation of twentieth-century built heritage (chapters 3-5). The body of the bibliography is organized in four chapters. These are:

History and Background (chapter 2) lists texts that provide general background, history, and criticism on twentieth-century buildings and structures. It includes both key texts from the period and later texts that assess twentieth-century structures.

Conserving Twentieth-Century Buildings and Structures (chapter 3) includes texts on issues specific to the conservation of twentieth-century built heritage, including identification, documentation, and protection, as well as conservation case studies. Also included are texts on the theoretical and methodological framework for conserving twentieth-century heritage.

Conservation of Specific Construction Materials and Systems (chapter 4) contains references to texts describing the conservation of specific twentieth-century construction materials, building components, and construction types. This chapter is organized in a series of subchapters as follows:

- General Material Conservation Issues
- Cladding Materials (tile, terracotta, mosaic, and others)
- Concrete and Cast Stone
- Construction Systems (prefabricated systems, curtain walling, and others)
- Finishes and Paints
- Flooring
- Glass, Glazing, and Windows
- Masonry
- Metals
- Plastics
- Roofing
- Wood

Sustainability and Adaptive Reuse (chapter 5) provides references to texts, guides, and case studies that explain principles or provide examples of adaptive
reuse, as well as energy conservation, sustainable practices, and mechanical services in twentieth-century buildings and structures.

The appendix provides descriptions of a number of national and international organizations with programs specializing in the identification, promotion, or conservation of twentieth-century heritage, or that produce relevant serial publications. It is intended to direct readers toward additional sources of information. Also included are links to several comprehensive abstracted databases of conservation literature.

**Future Steps**

The GCI will update this bibliography periodically and is soliciting input on both content and structure from professionals working in the field. We are especially interested in broadening the selection of references related to sites and conservation methodologies beyond the North American, European, and Australian contexts and from non-English-language publications. We would also like to broaden the scope of resources listed in the appendix. To help us improve future versions, please email your comments and suggestions to us at CMAI@Getty.edu.
CHAPTER 2

History and Background on Twentieth-Century Built Heritage


*Architecture in Profile*. 2000. Melbourne, Australia; Falls Church, VA: Discovery International; Landmark Media, Inc.


CHAPTER 3

Conserving Twentieth-Century Buildings and Structures


Ambrogio, Keoma, Annalisa Conforti, and Rita Fabbri. 2007. Il consolidamento dei materiali moderni tra conservazione e sostituzione: Un problema di restauro o di manutenzione ordinaria? [The consolidation of modern materials between conservation and substitution: A question of restoration or ordinary mainte-
ternane dell’architetto Mario Ridolfi [Which regulations for protecting modern
architecture? The case of Mario Ridolfi’s buildings in Terni]. In Architettura
e Materiali del Novecento: Conservazione, Restauro, Manutenzione: Atti del
Convegno di Studi, Bressanone, 13-16 Luglio 2004. ed. Guido Biscontin and
ricerche.

Caixa de Catalunya.

Ascroft, Sheila. 2005. Making a case for our middle-aged modern heritage: Two Toronto
sites now threatened = La défense de notre patrimoine moderne vieillissant:
Deux sites de Toronto sont menacés. Heritage: The Magazine of the Heritage
Canada Foundation = Patrimoine: Le Magazine de la Fondation Héritage
Canada 8 (4): 30-35.

Australia ICOMOS. 2000. The Burra Charter: The Australia ICOMOS Charter for
Places of Cultural Significance 1999: With Associated Guidelines and Code on
the Ethics of Co-Existence. Burwood, Vic.: Australia ICOMOS.

Use in Heritage Assessment and Management. Canberra: The Commission.


Ayón, Angel. 2009. Historic fabric vs. design intent: Authenticity and preservation of
modern architecture at Frank Lloyd Wright’s Guggenheim Museum. Journal of

Bandarin, Francesco, and Ron van Oers. 2005. World heritage and contemporary archi-

Basiricò, Tiziana. 2004. Valorizzazione e tutela dei quartieri INA-Casa di Palermo:
delle olimpiadi di Torino 2006: Il restauro come “riscrittura” dell’architettura
[Interventions on existing structures on the occasion of the 2006 Olympics
in Turin: Restoration as “rewriting” architecture]. In Architettura e Materiali
del Novecento: Conservazione, Restauro, Manutenzione: Atti del Convegno di

a Venezia: La sede del INAIL di Giuseppe Samonà, spunti di riflessione
[Restoration of a modern architectural work in Venice: The INAIL headquarters
by Giuseppe Samonà, some aspects to consider]. In Architettura e Materiali
del Novecento: Conservazione, Restauro, Manutenzione: Atti del Convegno di

e restauro [Contemporary architecture in Turin: Protection and restauro-
tion]. In Architettura e Materiali del Novecento: Conservazione, Restauro,
Marghera-Venezia: Arcadia ricerche.

Bierman, Janneke. 2009. The Challenge of Change: Dealing with the Legacy of the
Modern Movement: Coolsingel Strip Rotterdam. 2nd International Docomomo

from the Wave Hill-National Park Service Conference, Landmarks 10.


Braghieri, Alessandro. 2004. Restauro architettonico della Chiesa Sacra Famiglia di
Ludovico Quaroni a Genova [Architectural restoration of the Church of Sacra
Famiglia of Ludovico Quaroni in Genoa]. In Architettura e Materiali del
Novecento: Conservazione, Restauro, Manutenzione: Atti del Convegno di


Brereton, Christopher, and English Heritage. 1995. The Repair of Historic Buildings:

Board of Canada.


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———. 2006. La casa-studio di Konstantin Mel’nikov a Mosca [Konstantin Mel’nikov’s house-studio in Moscow]. *Arkos: Scienza e Restauro Dell’Architettura* 7 (16): 28-35.


———. 1995. I can’t see it; I don’t understand it; and it doesn’t look old to me. *Historic Preservation Forum* 10 (1): 6-15.


CHAPTER 4

Conservation of Specific Twentieth-Century Construction Materials and Systems

4.1 General Material Conservation Issues


4.2 Cladding Materials (tile, terracotta, mosaic, and others)


Cladding Materials


4.3 Concrete and Cast Stone


American Concrete Institute. 2010. *ACI Manual of Concrete Practice, 2010.* Farmington Hills, MI: American Concrete Institute.


Australian Concrete Repair Association (ACRA), Commonwealth Scientific and Industrial Research Organisation (CSIRO), and Standards Australia. 2006. *Guide to Concrete Repair and Protection.* 2nd ed. SAA HB 84-2006. Sydney: ACRA; CSIRO; Standards Australia.

Bell, Joseph N. 1969. *From the Carriage Age ... To the Space Age ... The Birth and Growth of the Concrete Masonry Industry.* Arlington, Va.: National Concrete Masonry Association.


Goold, Jamie, Paul Murray, and Scott Steedman. 2006. How Did They Build That? Program 9, Concrete Spaces. ca. 30 min. Aberdeen, WA: Shopware.

Grant, William. 1959. Manufacture of Concrete Masonry Units. 2nd ed. Chicago: Concrete Pub. Corp.


Precast/Prestressed Concrete Institute. 1989. *Architectural Precast Concrete*. 2nd ed. Chicago, Ill.: Precast/Prestressed Concrete Institute.


Conservation of Specific Twentieth-Century Construction Materials and Systems


4.4 Construction Systems (prefabricated systems, curtain walling, and others)


4.5 Finishes and Paints


4.6 Flooring


4.7 Glass, Glazing, and Windows


4.8 Masonry


4.9 Metals


4.10 Plastics


4.11 Roofing


4.12 Wood


CHAPTER 5

Sustainability and Adaptive Reuse


Appendix: Additional Resources

**AATA Online: Abstracts of International Conservation Literature**

A database providing free abstracts of conservation-related material published in 150 professional journals and conference proceedings. The database currently includes over 100,000 abstracts, with some 4,000 being added each year. It covers conservation of all materials in all time periods.
http://aata.getty.edu/nps/

**Art Deco News.Com / Art Deco Society**

This online resource on art deco news, issues, events, products, and destinations also provides links to state and local art deco societies in the United States, Australia, Canada, and UK, Brazil, Cuba, and South Africa.
http://www.artdeconews.com/index.htm

**Association for Preservation Technology International (APT)**

While not specific to the twentieth century, APT is an invaluable resource for conservation-related materials, including the APT Bulletin and APT Communiqué (an electronic newsletter for members). The association held a number of conferences during the 1990s specifically addressing this topic. The Technical Committee on Modern Heritage is one of APT’s four dedicated subcommittees.
http://www.apti.org/index.cfm

**BCIN: Bibliographic Database of the Conservation Information Network.**

This bibliographic database covers the conservation and restoration of cultural property, including built heritage. An international collaboration, it contains citations from technical reports, conference proceedings, journal articles, books and audiovisual and unpublished materials and is searchable in both English and French.
http://www.bcin.ca/English/home_english.html

**International Committee for Documentation of Buildings, Sites and Neighbourhoods of the Modern Movement (DOCOMOMO)**

DOCOMOMO International is an interdisciplinary organization that acts as a watchdog for important modern movement buildings, works to raise awareness of this heritage, and supports the exchange of information about its conservation and history. DOCOMOMO International's nearly sixty chapters represent countries in Europe, the Americas, Asia, Oceania, and Africa. Dissemination and research activities include seminars, meetings, and organization of a biennial conference, as well as publications, including the DOCOMOMO Journal (and its predecessor, the DOCOMOMO Newsletter), and conference and seminar proceedings. The organization also maintains the DOCOMOMO International Register documenting significant examples of modern movement heritage and a listing of endangered sites and structures. Selected listings from the International Register were published in 2000 in *The Modern*
Appendix: Additional Resources

Movement in Architecture: Selections from the DOCOMOMO Registers (Dennis Sharp and Catherine Cooke, eds.).
http://www.docomomo.com

DOCMOMO US

The United States chapter of DOCOMOMO maintains the DOCOMOMO US register, an online database of modern movement sites and buildings that parallels the goal of the International Register.
http://docomomo-us.org

English Heritage

Though devoted to the full range of heritage sites, English Heritage has conducted a number of activities focused on the identification, interpretation, and conservation of twentieth-century built heritage including the Contemporary Heritage and Character program, the postwar listing program of the 1990s, reviews of twentieth-century military heritage, and several publications.
http://www.english-heritage.org.uk/professional/research/landscapes-and-areas/characterisation/contemporary-heritage/

Getty Research Institute (GRI): Architecture and Design Collection

The GRI, a program of the J. Paul Getty Trust, is dedicated to furthering knowledge and advancing understanding of the visual arts. The GRI’s Architecture and Design Collection has significant holdings related to twentieth-century built heritage; materials are accessible to approved readers. Highlights include the archives of Southern Californian architects Pierre Koenig, John Lautner, Ray Kappe, Frank Israel, and William Krisel; international projects by Coop Himmelblau, Peter Eisenman, Yona Friedman, Zaha Hadid, Philip Johnson, Daniel Libeskind, Aldo Rossi, and Frank Lloyd Wright; the influential architectural photography of Julius Shulman and Lucien Hervé; and the papers of architecture critic Reyner Banham.
http://www.getty.edu/research/special_collections/highlights/architecture_design/index.html

International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM): Conservation of Modern Architecture

ICCROM’s Built Heritage Programme has made the conservation of modern architecture a priority area. Activities have included international courses for heritage professionals to increase capacity in this field.

International Committee for the Conservation of the Industrial Heritage (TICCIH)

TICCIH is an international organization promoting research, conservation, documentation, and interpretation of the world’s industrial heritage. TICCIH publishes the journal, Patrimoine de l’industrie / Industrial Patrimony, as well as the quarterly TICCIH Bulletin, which is available online. The TICCIH International Inventory (online) documents significant industrial heritage sites. Though not limited in its time scope, much of TICCIH’s work deals with twentieth-century industrial heritage.
http://www.mnactec.cat/ticcih/
International Council of Monuments and Sites (ICOMOS) International Scientific Committee on 20th Century Heritage (ISC20)

ICOMOS ISC20 works to advance the identification, presentation, and conservation of twentieth-century heritage sites.
http://icomos-isc20c.org/

International Union of Architects (UIA)

The UIA—a global professional network of architects—maintains a searchable online index of architecture that exemplifies twentieth-century architectural history.
http://www.archi.fr/UIA/

National Trust for Historic Preservation (NTHP): TrustModern / Modernism + the Recent Past Program

TrustModern is the NTHP’s program devoted to advocacy, education, and outreach on matters related to the identification, designation, and preservation of the built heritage of the recent past in the USA. Activities include a series of “Modern Modules” to raise awareness of modern resources in specific cities, related publications, case studies, and a survey of the important collection of modern residences in New Canaan, Connecticut. The NTHP owns and operates four significant modernist houses as historic sites. TrustModern’s web page operates as a clearinghouse for all NTHP publications and activities dealing with recent past resources.
http://www.preservationnation.org/issues/modernism-recent-past/

Recent Past Preservation Network (RPPN)

The Recent Past Preservation Network is a national nonprofit (USA) advocating for the preservation of buildings of the recent past and providing resources to those who are working to do so. The Network publishes RPPN Bulletin, a free, quarterly, online newsletter, as well as a blog. Other web resources include a national windshield survey of recent past resources, “A Historical Bibliography of Architecture, Landscape Architecture, and Urbanism in the United States since World War II,” an extensive resource compiled by Richard Longstreth of George Washington University, and a resource directory.
http://www.recentpast.org/

Twentieth Century Society

The Twentieth Century Society advocates for the preservation of Great Britain’s architectural heritage from 1914 onward. The society publishes a scholarly journal, Twentieth Century Architecture, roughly once a year.
http://www.c20society.org.uk/

World Heritage Centre: Modern Heritage Programme

In 2001, UNESCO’s World Heritage Centre, ICOMOS, and DOCOMOMO launched a joint program for the identification, documentation, and promotion of nineteenth- and twentieth-century built heritage, which is underrepresented on the World Heritage List. In 2003, the WHC published Identification and Documentation of Modern Heritage: World Heritage Papers 5, which aims to provide a conceptual framework for identifying and analyzing modern heritage.
http://whc.unesco.org/en/modernheritage/
World Monuments Fund (WMF): Modernism at Risk Special Initiative

The WMF’s Modernism at Risk Special Initiative is focused on advocacy, public education, and conservation of threatened modern resources. WMF awards the Knoll Modernism Prize biennially for an innovative design solution that has resulted in the preservation or enhancement of a modern resource. 
http://www.wmf.org/advocacy/modernism