

Sustainable & Green Architecture Design



Some goals of sustainable and green architecture are reducing harmful effects on the environment such as carbon emissions, conserving energy, improving liveability and reduction of construction waste. This reading list contains over 80 publications mainly published in the last 10 years and aims to give insight to various topics.

The Library will periodically add new resources to this list. Links to the full-text are indicated. If you encounter any problem in retrieving the materials, please contact library@sutd.edu.sg for assistance.

Please also forward us titles that you would like to share with others in this list.

TOPICS

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- ☒ Passive Architecture
- ☒ Vernacular Architecture
- ☒ Systems – *Building & Energy*
- ☒ Materials & Construction

Cities

Issues and insights to urban planning with sustainability as the focus

[Contal-Chavannes, M., Revedin, Jana, & Kugler, Elizabeth. \(2013\). *Sustainable Design. Towards a New Ethic in Architecture and Town Planning Towards a New Ethic in Architecture and Town Planning*. Basel: De Gruyter.](#)

[Gaines, J., & Jäger, Stefan. \(2009\). *Albert Speer & Partner : A manifesto for sustainable cities : Think local, act global*. Munich ; New York: Prestel.](#)

Main Library General Lending (HT166 GAI)

[Lieb, S., Daab, Ralf, Oosterhuis, Kas, Heilmeyer, Florian, Dubbeldam, Winka, Mayer H., J., . . . Why Factory. \(2011\). *Futuristic : Visions of future living*. Cologne: Daab.](#)

Main Library Reference (NA209.5 FUT)

[Maas, W., Hackauf, Ulf, Haikola, Pirjo, & Why Factory. \(2014\). *Green dream : How future cities can outsmart nature* \(Future cities series ; 2\).](#)

Main Library Reference (HT241 GRE)

[Minguet, J. \(2008\). *Sustainable urban landscapes*. Singapore: Page One.](#)

Main Library General Lending (HT169 SUS)

[Tilder, L., & Blostein, Beth. \(2009\). *Design Ecologies : Sustainable Potentials in Architecture*. New York: Princeton Architectural Press.](#)

[Flannery, J., & Smith, K. \(2011\). *Eco-Urban Design*. Dordrecht: Springer Netherlands.](#)

Principals

Understanding Sustainable architecture and what to consider when designing

[Bauer, M., Möhle, Peter, & Schwarz, Michael. \(2009\). *Green Building Guidebook for Sustainable Architecture*. Berlin: Springer Berlin Heidelberg.](#)

[Bergman, D. \(1900\). *Sustainable Design A Critical Guide for Architects and Interior, Lighting, and Environmental Designers*. New York: Princeton Architectural Press.](#)

[Chick, A., & Micklethwaite, Paul. \(2011\). *Design for sustainable change : How design and designers can drive the sustainability agenda : Required reading range course reader*. Lausanne, Switzerland: Ava Pub.](#)

[Bothwell, K., Redclift, Michael, & Springett, Delyse. \(2015\). *Sustainable Architecture*. Routledge.](#)

[Hagan, S. \(2001\). *Taking shape a new contract between architecture and nature*. Oxford ; Boston: Architectural Press.](#)

[Kishnani, N. \(2012\). *Greening Asia : Emerging principles for sustainable architecture*.](#)

Available at Main Library General Lending (NA2542.36 KIS)

[Lengen, J. \(2008\). *The barefoot architect : A handbook for green building*. Bolinas, Calif., U.S.A: Shelter Publications.](#)

[Sassi, P. \(2006\). *Strategies for sustainable architecture*. London ; New York: Taylor & Francis.](#)

[Schröpfer, & Schropfer. \(2012\). *Ecological Urban Architecture Qualitative Approaches to Sustainability* \(Birkhäuser Generalstandingorder\). Basel: Birkhäuser.](#)

[Stang, A., Hawthorne, Christopher, & National Building Museum. \(2005\). *The green house : New directions in sustainable architecture* \(1st ed.\). New York : Washington, D.C.: National Building Museum, Princeton Architectural Press ;.](#)

Main Library General Lending NA2542.36 STA

[Tabb, P., & Deviren, A. Senem. \(2014\). *The Greening of Architecture A Critical History and Survey of Contemporary Sustainable Architecture and Urban Design*. Farnham: Ashgate Publishing.](#)

[Williamson, T., Radford, Antony, & Bennetts, Helen. \(2002\). *Understanding sustainable architecture*. New York: Spon Press.](#)

[Williamson, T., Radford, Antony, & Bennetts, Helen. \(2002\). *Understanding sustainable architecture*. New York: Spon Press.](#)

Professional Development

Topics related to professionals in the area of sustainable design

[Henderson, H. \(2012\). *Wiley Series in Sustainable Design, Volume 33 : Becoming a Green Building Professional : A Guide to Careers in Sustainable Architecture, Design, Engineering, Development, and Operations*. Somerset: John Wiley & Sons.](#)

[Henderson, H. \(2012\). *Becoming a Green Building Professional A Guide to Careers in Sustainable Architecture, Design, Engineering, Development, and Operations* \(Wiley Series in Sustainable Design\). Hoboken: Wiley.](#)

[Melaver, M. \(2009\). *The green building bottom line: The real cost of sustainable building* \(McGraw-Hill's AccessEngineering\). New York: McGraw-Hill.](#)

[Yudelson, J. \(2008\). *Marketing green building services strategies for success* \(1st ed.\). Oxford: Elsevier.](#)

Projects

Featuring various works of sustainable and green architecture

[Anker, P., Harpman, Louise, & Joachim, Mitchell. \(2014\). *Global design : Elsewhere envisioned*.](#)

Main Library Reference (NA2542.36 ANK)

[Bay, J., & Ong, Boon Lay. \(2006\). *Tropical sustainable architecture social and environmental dimensions* \(1st ed.\). Boston, Mass.: Elsevier.](#)

[Bingham-Hall, P. \(2012\). *A guide to 21st century Singapore architecture*.](#)

Main Library General Lending (NA1530.S5 BIN)

[Denzer, A. \(2013\). *The solar house : Pioneering sustainable design*. New York: Rizzoli.](#)

Main Library General Lending (TH7414 DEN)

[Feireiss, K., & Feireiss, Lukas. \(2009\). *Architecture of change 2 : Sustainability and humanity in the built environment*. Berlin: Die Gestalten Verlag.](#)

Main Library General Lending (NA2542.35 ARC)

[Glicksman, L., & Juintow, Lin. \(2007\). *Sustainable Urban Housing in China Principles and Case Studies for Low-energy Design* \(Alliance for Global Sustainability S., v. 9\). Dordrecht: Springer.](#)

[Green, J. \(2015\). *Designed for the future : 80 practical ideas for a sustainable world*.](#)

Main Library General Lending (NK1520 DES)

[Green, T. \(2013\). *Eco-housing design*. Hong Kong: Desing Media Publishing.](#)

Main Library General Lending (TH4812 ECO)

[Hart, S., & Littlefield, David. \(2011\). *Ecoarchitecture : The work of Ken Yeang*. Chichester, \[England\]: Wiley.](#)

Main Library General Lending (NA1525.8.Y4 HAR)

[Hi-Design Publishing. \(2013\). *Sustainable & green building. Vol. 2, Research+education = Jie neng jian zhu \(zhong\). Ke yan jia jiao yu*. Dalian: Dalian University of Technology Press.](#)

Main Library General Lending (TH880 SUS)

[Hindricks, D., & Daniels, Klaus. \(2007\). *Plusminus 20°/40° latitude : Sustainable building design in tropical and subtropical regions*. Stuttgart ; London: Edition A. Menges.](#)

Main Library General Lending (NA2542.T7 PLU)

[Isitt, M. \(2011\). *White green 10 : Ten projects in the great outdoors by White arkitekter*. London: Laurence King Publishing.](#)

Main Library General Lending (NA1293.W54 ISI)

[McGillick, P., & Kawana, Masano. \(2014\). *Sustainable luxury : The new Singapore House, solutions for a livable future*. Tokyo: Tuttle Publishing.](#)

[Proctor, R. \(2015\). *The Sustainable Design Book*. London: Laurence King Publishing.](#)

[Richardson, P. \(2007\). *XS green : Big ideas, small buildings*. London: Thames & Hudson.](#)

Main Library General Lending (NA2542.35 RIC)

[Santini, C., & Zilafro, Dafna. \(2009\). *Green is beautiful : The eco-friendly house*. Mulgrave, Vic., Australia: Images Pub. Group.](#)

[Schröpfer, T. \(2015\). *Dense + green : Innovative building types for sustainable urban architecture*.](#)

[Slavid, R. \(2009\). *Extreme architecture*. London: Laurence King.](#)

[Spirito, G., Leone, Sabrina, & Spita, Leone. \(2009\). *Eco structures : Forms of sustainable architecture*. Vercelli, Italy: White Star.](#)

Main Library General Lending (NA2542.36 ECO)

[Uffelen, C. \(2009\). *Ecological architecture \(1st ed.\)*. Berlin\]: Braun.](#)

Main Library General Lending (NA687 UFF)

[Yeang, K. \(2009\). *Ecomasterplanning*. Chichester: Wiley.](#)

Main Library General Lending (NA2542.35 YEA)

Algorithmic Design

The use of software's to generate designs

[Andia, A., & Spiegelhalter, Thomas. \(2015\). *Post-parametric automation in design and construction*.](#)

Main Library General Lending (TH437 AND)

[Chang, M., & Shih, S. \(2015\). A Hybrid Approach of Dynamic Programming and Genetic Algorithm for Multi-criteria Optimization on Sustainable Architecture design. *Computer-Aided Design and Applications*, 12\(3\), 310-319.](#)

[Derix, C., Kimpian, J., Karanouh, A., Mason, J., & Peters, Terri. \(2011\). Feedback Architecture. *Architectural Design*, 81\(6\), 36-43.](#)

[Lima, F., Kos, J., & Paraizo, R. \(n.d.\). Algorithmic approach toward Transit-Oriented Development neighborhoods: \(Para\)metric tools for evaluating and proposing rapid transit-based districts. *International Journal of Architectural Computing*, 14\(2\), 131-146.](#)

[Salngaros, N. \(2010\). *Twelve lectures on architecture : Algorithmic sustainable design : Notes from a series of 12 lectures applying cutting-edge mathematical techniques to architecture and urban design*.](#)

[Yu, Soungmin, Austern, Guy, Jirathiyut, Theerapat, & Moral, Mara. \(2014\). Climatic Formations: Evolutionary Dynamics of Urban Morphologies. *Journal of Asian Architecture and Building Engineering*, 13\(2\), 317-324.](#)

Passive Architecture

Low energy dependency building design

[Almusaed, A. \(2011\). *Biophilic and Bioclimatic Architecture*. London: Springer London.](#)

[Attmann, O. \(2010\). *Green architecture: Advanced technologies and materials* \(McGraw-Hill's AccessEngineering\). New York: McGraw-Hill.](#)

[Bauer, Mösele, & Schwarz. \(2010\). *Green Building*. Berlin, Heidelberg: Springer Berlin Heidelberg.](#)

[La Roche, P. \(2011\). *Carbon-Neutral Architectural Design*. CRC Press.](#)

[Moskow, K. \(2011\). *Sustainable facilities: Green design, construction, and operations* \(McGraw-Hill's ebook library. Engineering and computing. Sustainability engineering\). New York: McGraw Hill Professional.](#)

[Nguyen, A., Reiter, S., & Lepur : Centre De Recherche En Sciences De La Ville, Du Territoire Et Du Milieu Rural. \(2014\). A climate analysis tool for passive heating and cooling strategies in hot humid climate based on Typical Meteorological Year data sets. *Energy & Buildings*, 68\(Part C\), 756-763. Elsevier Science \(2014\).](#)

[Roberto, G., & Vallentin, Rainer. \(2014\). *Passive House Design : A compendium for architects* \(DETAIL Green Books\).](#)

Vernacular Architecture

A traditional style of architecture based on culture and materials available

[Chandel, Sharma, & Marwah. \(2016\). Review of Energy Efficient Features in Vernacular Architecture for Improving Indoor Thermal Comfort Conditions. *Renewable and Sustainable Energy Reviews*, Renewable and Sustainable Energy Reviews.](#)

[Calabrese, G. \(2012\). Conservation of historic earth buildings-16. In *Modern earth buildings* \(pp. 401-424\).](#)

[Dabaieh, Marwa, & Sakr, Mamdouh. \(2015\). Transdisciplinarity in rammed earth construction for contemporary practice. *Earthen Architecture: Past, Present And Future*, 107-114.](#)

[Harries, K., & Sharma, Bhavna. \(2016\). *Nonconventional and Vernacular Construction Materials Characterisation, Properties and Applications*. Elsevier Science.](#)

[Halliday, S. \(2012\). *Sustainable Construction*. Hoboken: Taylor and Francis.](#)

[Mileto, C., Vegas, F., García Soriano, L., & Cristini, V. \(2014\). *Earthen Architecture: Past, Present and Future*. CRC Press.](#)

[Minke, G. \(2012\). *Building with Earth : Design and Technology of a Sustainable Architecture \(2nd Edition\)*. Basel: Birkhaeuser.](#)

[Minke, G. \(2012\). *Birkhäuser Generalstandingorder : Building with Earth : Design and Technology of a Sustainable Architecture \(3rd Edition\)*. Basel: Birkhäuser.](#)

[Mileto, C., Vegas, F., García Soriano, L., & Cristini, V. \(2014\). *Vernacular Architecture: Towards a Sustainable Future*. CRC Press.](#)

[Mortada, H. \(2016\). Sustainable Desert Traditional Architecture of the Central Region of Saudi Arabia: Traditional Desert Architecture. *Sustainable Development*, N/a.](#)

[Weber, W., & Yannas, Simos. \(2014\). *Lessons from vernacular architecture*. New York: Routledge.](#)

Systems

Building and energy systems to minimize power requirements

[Dangel, U. \(2010\). *Sustainable Architecture in Vorarlberg Energy Concepts and Construction Systems*. Basel: De Gruyter.](#)

[Fuchs, M., Hegger, Manfred, Stark, Thomas, & Zeumer, Martin. \(2008\). *Energy Manual Sustainable Architecture*. Basel/Berlin/Boston: Birkhäuser.](#)

[Fuchs, M., & Stark, Thomasmnmzeumer, Martin. \(2012\). *Birkhäuser Generalstandingorder : Energy Manual : Sustainable Architecture*. Basel: Birkhäuser.](#)

[Gevorkian, P. \(2011\). *Sustainable energy systems in architectural design: A blueprint for green building* \(McGraw-Hill's ebook library. Engineering and computing. Sustainability engineering\). New York: McGraw Hill Professional.](#)

[Szokolay, S. \(2008\). *Introduction to architectural science : The basis of sustainable design* \(2nd ed.\). Amsterdam ; Boston ; London: Elsevier/Architectural Press.](#)

[Vassigh, S., & Chandler, Jason. \(2010\). *Building Systems Integration for Enhanced Environmental Performance*. Ft. Lauderdale: J. Ross Publishing.](#)

Materials & Construction

Various techniques and materials used in sustainable design

[Bielek, B. \(2016\). Green Building – Towards Sustainable Architecture. *Applied Mechanics and Materials*, 824, 751-760.](#)

[Braganca, L., Pinheiro, M.D, & Jalali, S. \(2007\). Portugal SB07. Sustainable Construction, Materials and Practices Challenge of the Industry for the New Millennium. Amsterdam: IOS Press.](#)

[Kamal, M. \(2014\). *Materials and Technologies for Green Construction Special Topic Volume with Invited Peer Reviewed Papers Only* \(Key Engineering Materials\). Zurich: Trans Tech.](#)

[Luckett, K. \(2009\). *Green roof construction and maintenance* \(McGraw-Hill's AccessEngineering\). New York: McGraw-Hill.](#)

[Ma, U. \(2011\). No Waste Managing Sustainability in Construction. Farnham: Ashgate Publishing.](#)

[Minke, G. \(2012\). *Birkhäuser Generalstandingorder : Building with Bamboo : Design and Technology of a Sustainable Architecture*. Basel: Birkhäuser.](#)

[Minke, G., & Mahlke, Friedemann. \(2005\). Building with straw : Design and technology of a sustainable architecture. Basel ; Boston: Birkhäuser.](#)

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[Peters, S. \(2014\). *Material Revolution 2 New Sustainable and Multi-Purpose Materials for Design and Architecture*. Basel: De Gruyter.](#)

[Shao, Y., Hao, Shuguang, Luo, Yuping, Xing, Jibo, & Liu, Zhiyong. \(2012\). *Advanced Building Materials and Sustainable Architecture Selected, Peer Reviewed Papers from the 2nd International Conference on Civil Engineering, Architecture and Building Materials \(CEABM 2012\), May 25-27, 2012, Yantai, China* \(Applied Mechanics and Materials\). Zurich: Trans Tech.](#)