ASD Discovery
We SHARE to inspire and ignite ideas for Architecture & Sustainable Design (ASD) pillar!

The titles featured here are to give you a peek into the wealth of resources we have. We hope, through this, we will encourage you to explore and read further. Share with us topics of importance to ASD and we can introduce relevant titles from our 600,000 eBooks we carry.

FACULTY WORK

3D Printed Reversible Shape Changing Components with Stimuli Responsive Materials
By Yuan Chao, ASD
In this paper, the authors presented a new reversible shape-changing component design concept, utilizing the expansion of a hydrogel to vary shapes and the temperature-based parameter of a shape memory polymer to manage the time of such shape change. The proposed model was proved to be useful to a number of engineering and biomedical applications.

Source: Scientific Reports (April 2016)

SUTD Professors Design 3D Printed Mesh Pavilion
By Prof Felix Raspall and Prof Carlos Bañón, ASD
A 14.5-meter-long mesh pavilion was set up at the Campus Centre of SUTD Singapore for the university’s Open House 2016. The model contains 19 metal and 72 nylon 3D printed nodes connected to each other by aluminum bars, manifesting the application of 3D printing technology to functional architectural components at a large scale.

Source: ArchDaily (June 2016)

ARCHITECTURE CAREER

Two Qualities You Need to Succeed in an Architecture Career
By Brandon Hubbard
According to a survey of 104 CEOs on the most important qualities of an ideal employee, two qualities outperformed the rest and gained the votes from 86% of the senior executives:
1. Do what is important first.
2. Get the job done fast.

Source: The Architect’s Guide

ART & ARCHITECTURE

Student Proposal for London’s Bishopsgate Goodsyard Builds on the Legacy of Zaha Hadid
By Patrick Lynch
The student team adopted biomimicry and sculptural design to produce a blueprint of a high-density complex, proposing for London’s Bishopsgate Goodsyard. The project is both inspired by and contributing to Zaha Hadid’s ongoing legacy.

Source: ArchDaily (May 2016)
Façade Panels - Flatlock Tiles

By using various sized flat tiles and manipulating the overlapping seams, the flatlock panel system can have a flexible layout along the façade or roof structure, being ideal for curvilinear surfaces.

Source: 100 Top Projects

The Use of Digital Fabrication as a Sketching Tool in the Architectural Design Process - A Case Study

By Asli Agirbas

In this project, computer-aided manufacturing (CAM) techniques are utilized as a sketching tool for developing ideas in the architectural design process; unlike in real cases students merely use the technologies upon finishing their works. Digital fabrication is concluded to be an integral part of design activities.

Source: eCAADe (2015)

Drawing the Barcelona Pavilion: Mies van der Rohe and the Implications of Perspectival Space

By Desley Luscombe

The article studies a drawing of the interior of the German State Pavilion in Barcelona designed by Ludwig Mies van der Rohe in 1929 and presents two forms of investigation, one focusing on the facture of the work and the other engaging a historical perspective.

View the whole publication, The Journal of Architecture.

Source: The Journal of Architecture (Mar 2016)

Disciplinary Convergence: Landscape Architecture and the Spatial Design Disciplines

By Karl Kullmann

The author considers the concern for the viability of landscape architecture as a result of the shifts among the spatial design disciplines. A discussion on the contested cross-disciplinary interaction, focusing on architecture and landscape architecture, is presented using case studies. The findings are potentially significant to disciplinary education and practice.

View the whole publication, Journal of Landscape Architecture.

Source: Journal of Landscape Architecture (Feb 2016)

Carpentry and Construction

By Mark R. Miller and Rex Miller

A reader-friendly DIY guide gets you through the whole course of home construction from remodeling to household repairing. It also captures the latest tools and materials, practices on environmentally friendly construction, and a newly added chapter on painting. The book is logically organized, featuring over 1,500 up-to-date images as well as clear technique demonstrations.
Planning to Cope with Tropical and Subtropical Climate Change
By Maurizio Tiepolo
This book covers a broad range of topics in coping with climate change in tropical and subtropical areas, including climate planning, early warning systems, monitoring systems, etc. The author also provided a number of examples of climate change characterizations, as well as decision making tools that can be used by operators or researchers to conduct adaptation planning.