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## Case Studies

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### ALTERNATE emergent

- (Tiwari) Shradhan
- (Sakar) Sona
- (Narayan) Sankalp
- (BMS) Rajeeb

### dominant MAINSTREAM

- Lal Barua
- (Sajal) Sona
- (Kripa) Shristi
- (Salina) (Puspa)

### Key to Initials / Numerals

- L.B.: LEED
- BREEAM
- CASBEE
- GRIHA
- TREE
- OTHER
- PUN-HABITAT
- Academia

### Case Studies

- Biophysical Design
- The Vitruvian Man

### Table: Case Studies

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### Graphics

- Evaluations
- Conclusions

### Vastu Purush

- Vitruvian Man

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### Graphics

- Evaluations
- Conclusions

### Vastu Purush

- Vitruvian Man
The purpose of the ERA Guide will be to present an overview of everything, with prejudice towards none, equal space for all competing concerns, cross currents and other conflicting interests so that the lay reader gets them as they are, without biased interpretations or facile judgments getting in the way.

The vast amount of information available on ‘green & sustainable’ have to be organized according to accepted principles of knowledge management, classified, categorized, divided or otherwise ordered so as to facilitate a systematic and selective reading or understanding.

What lies beneath the surface, inner certainties, tacit knowledge hidden away but underpinning the actual self. They matter.

The SONA ERA Guide is not just a mindless collection of information. It is meant to be read in a certain way. At the core are the five elements, the basic constituents of the Universe as laid out in ancient times. Each of these elements are to be used as the medium through which to view each of the ‘aspects’ ranged on each side. For example, the element ‘Jal’ or water when used to view, say, ‘pre-history’ or ‘Griha’, will assess what each of these aspects say on water. Permutations & combinations of the elements and aspects are numerous and the uses of the resulting matrix awesome!
Holistic approach

Figure 18: Sources of environmental impacts in each phase of the building life cycle

Source: WBCSD, 2007
Incorporate in B.Arch. Curriculum

1) Building Material
2) Building Construction
3) Building Science
4) Design Studios
Elective-I  
(Sustainable Architecture)  
BEG319AR-SA

Year: III  
Semester: VI

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**Course Objective:**
- To introduce basic ideas on sustainability movement, sustainable development and sustainable engineering
- To enable students visualize and access architecture as integrated meta-system of environmental subsystems
- To enable students make simple analysis of building using EIA and SLCA tools
- To enable students explore details in components/ features of sustainable architecture from site planning to indoor detailing
- To enable students design a sustainable building
- To introduce different Green building rating Programs and make students enable to formulate rating strategies for different cases

**Chapter 1: Fundamentals of Sustainability Literacy**  
(6 hrs)

**1.1 Humans and Sustainability: an overview**

- *Major crisis of our civilization:*  
  Population growth, resource depletion, environmental pollution, climate change, biodiversity degradation, poverty, urbanization and globalization

- *Environmental problem, a multidimensional perspective:*  
  Relation between human activities, environment and sustainability; Carrying capacity and tragedy of commons, Ecological foot-print and Carbon foot-print

- *Four pillars of sustainability:* Environment, Society, Economics and Culture

- *An overview of Sustainability Movement:*  
  Different eras of environmental histories, World Commission on Environment and Development (WCED), Rio de Janeiro and Agenda 21, United Nation Framework Convention of Climate Change (UNFCCC) and Kyoto Protocol
New practices
The techniques for building Emergency Sandbag Shelter can build us shelters and also show us a process of Research and Development. To scale up from an Emergency Shelter to the Eco-Village, we need to understand the ideas in this process and undertake the next journey of Research and Development.

Winner of the Aga Khan Award for Architecture 2004.

SANDBAG SHELTER: A PROCESS
Transitional Homes plan of Mission Rebuild Nepal

Starting Date: Jestha 2072 (May/June 2015)
Completion Date: Chaitra 2072 (March/April 2016)

Sipapokhare VDC, Sindhupalchowk District, Nepal
Thank you for your time.

"WITH ENERGY PRICES GOING UP...I HAD AN IDEA!..."