

**INTRODUCTION TO
STHAPATYA VASTU & NIRMAN VIDYA AND
ARTHASHASTRA (KS 1)**

Autumn 2022

3-0-0

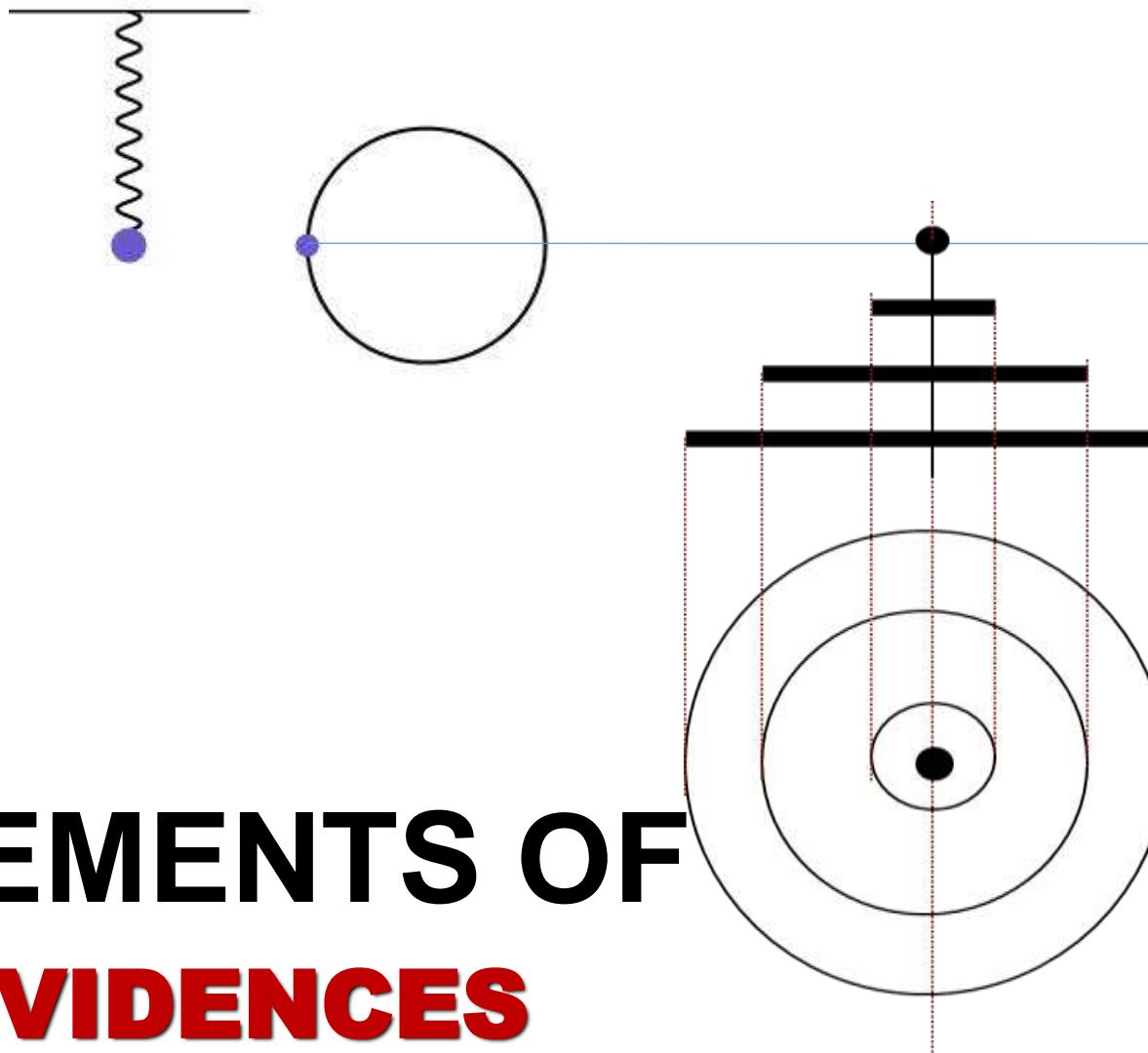
**Recapitulation and retrospect
PAST – FUTURE CONTINUUM**

- 1 VASTU: BUILT EVIDENCE**
- 2 STHAPATYA: BUILT PRINCIPLES**
- 3 NIRMAN: CONSTRUCTION**

Joy Sen

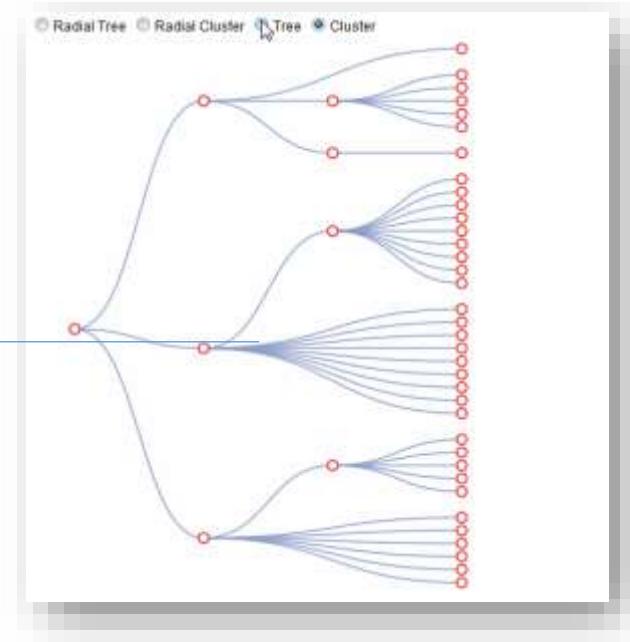
CENTER OF EXCELLENCE FOR INDIAN KNOWLEDGE SYSTEMS

August 25 2022



ELEMENTS OF EVIDENCES OVER TIME & SPACE

DESIGN 1



Reciprocal deconstruction: CITY CENTRE



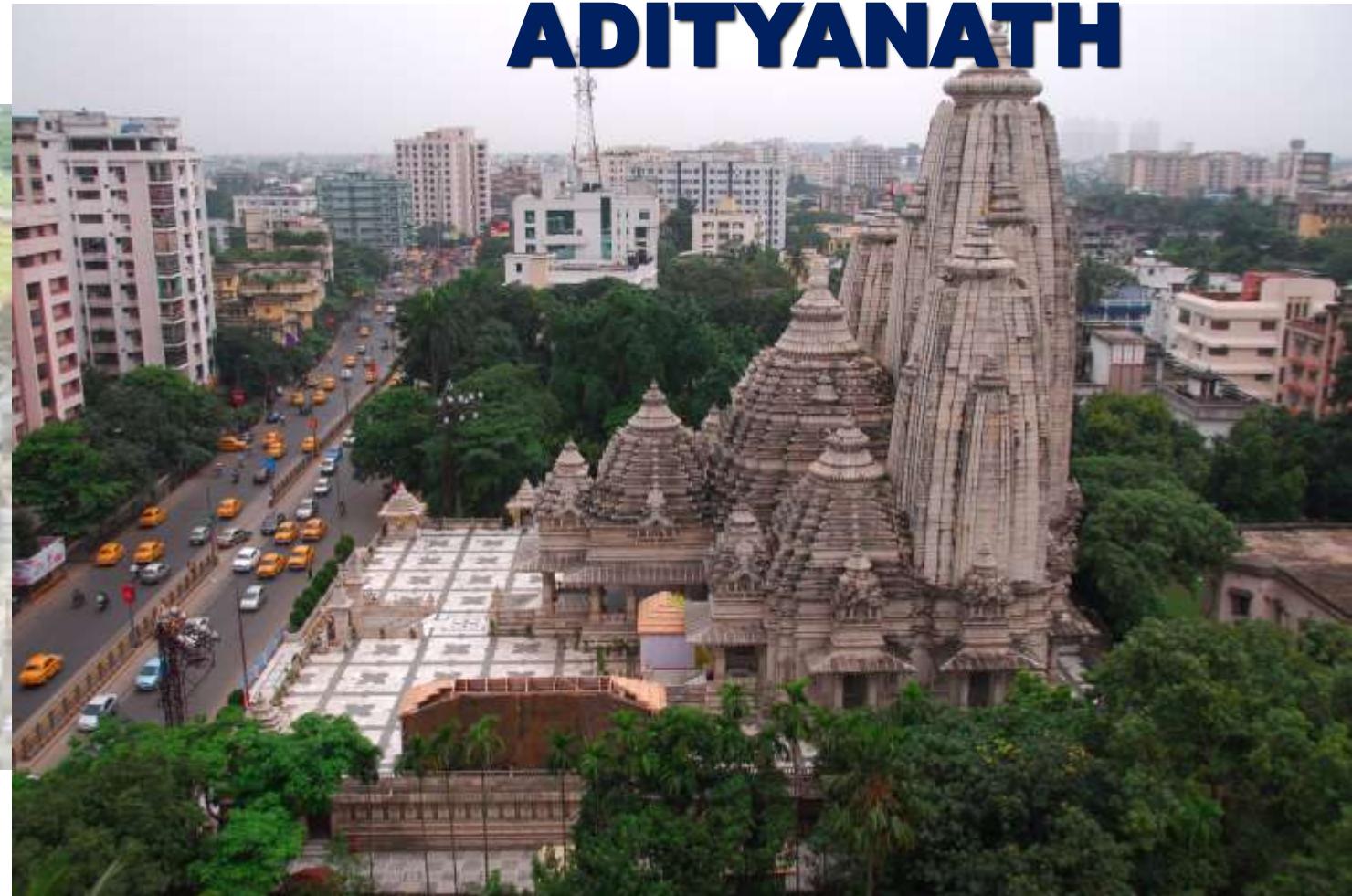
Grid and Layout VAPI/ BHAB



PLASTIC FORMULATION: KAILASHNATH



Grid and Layout ADITYANATH

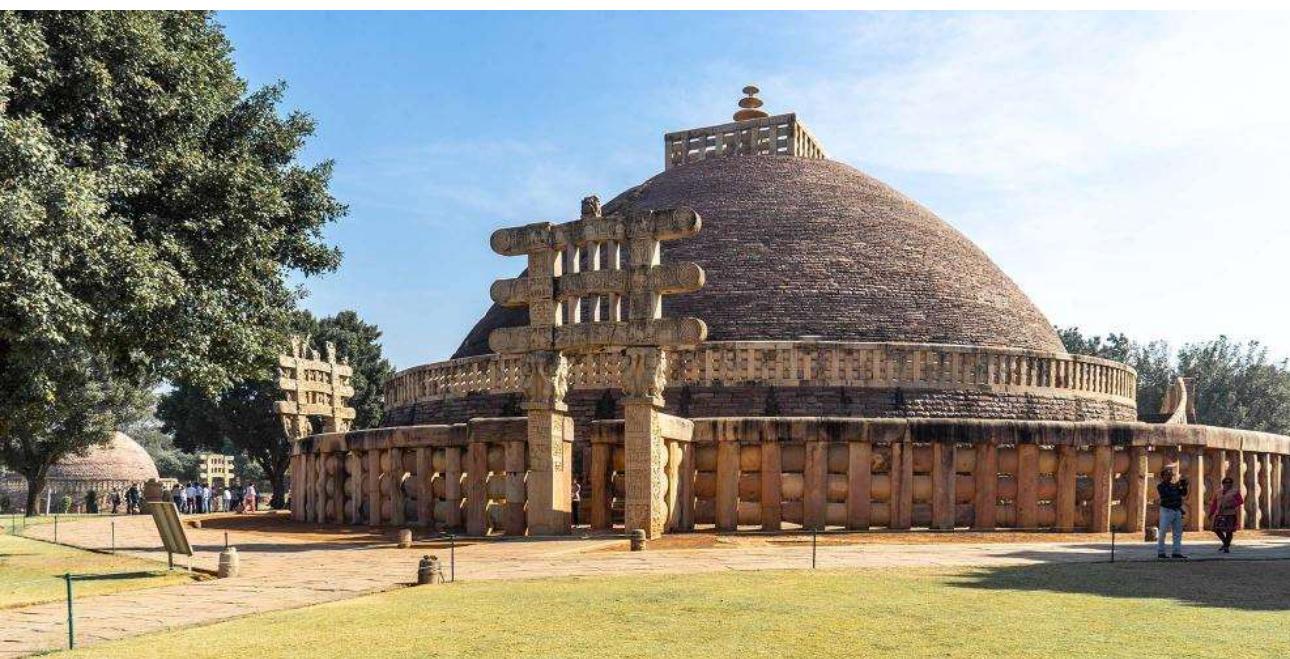


RHYTHMS OF THE APSIDAL: BELUR TEMPLE

Grid and Layout KARLA



THE GLOBULAR STUPA: SANCHI



STEPS & STEEP TARA MANDALAM



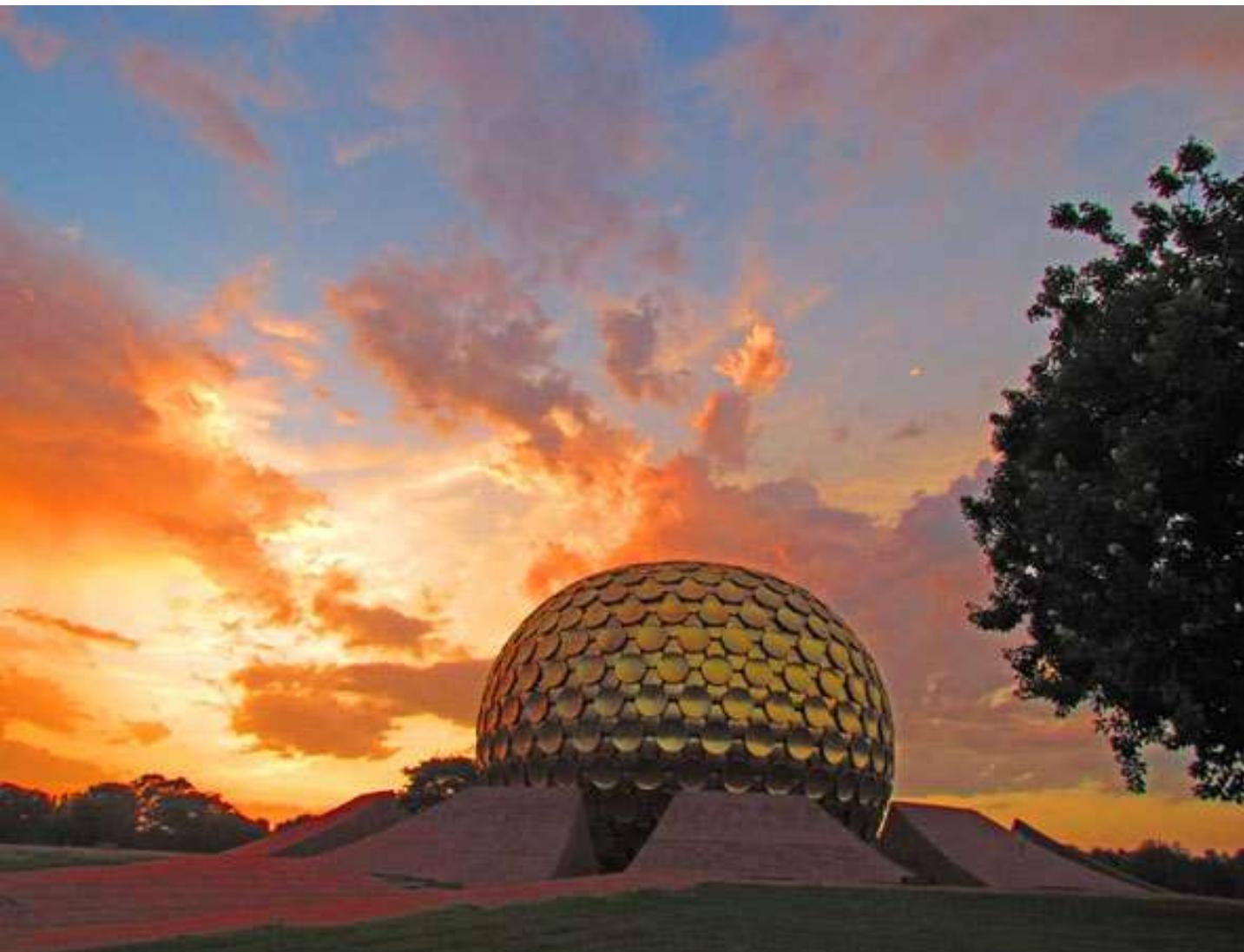
FORMULATION OVER TIME: SRI KSHETRAM



Grid and Layout KALKAJI



FORMULATION OVER TIME: COSMOS

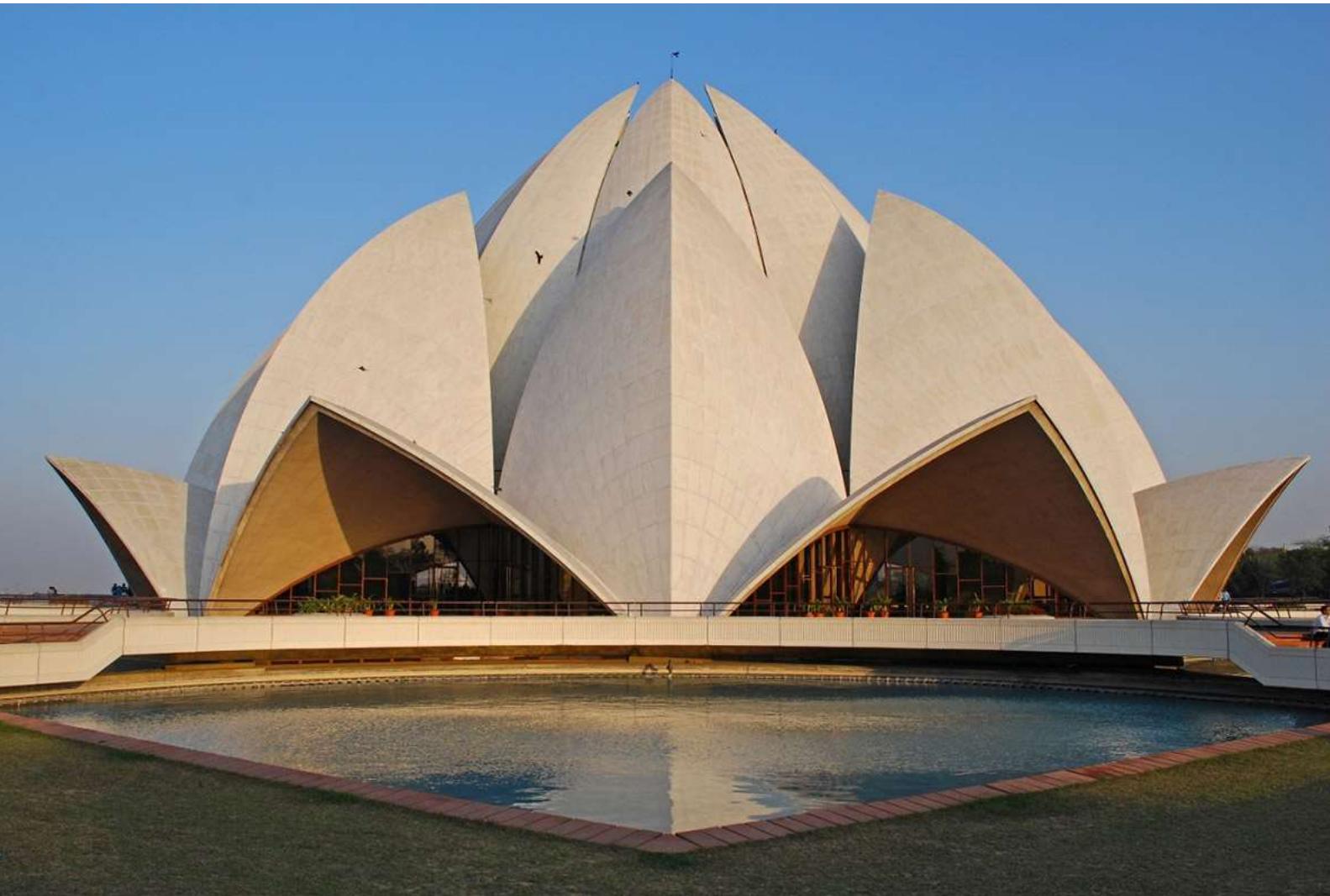


Grid and Layout REALIZED



BLESSING & BLOSSOMING: THE FLOWER OF SUN

Grid and Layout 9 PETALLED KALKAJI

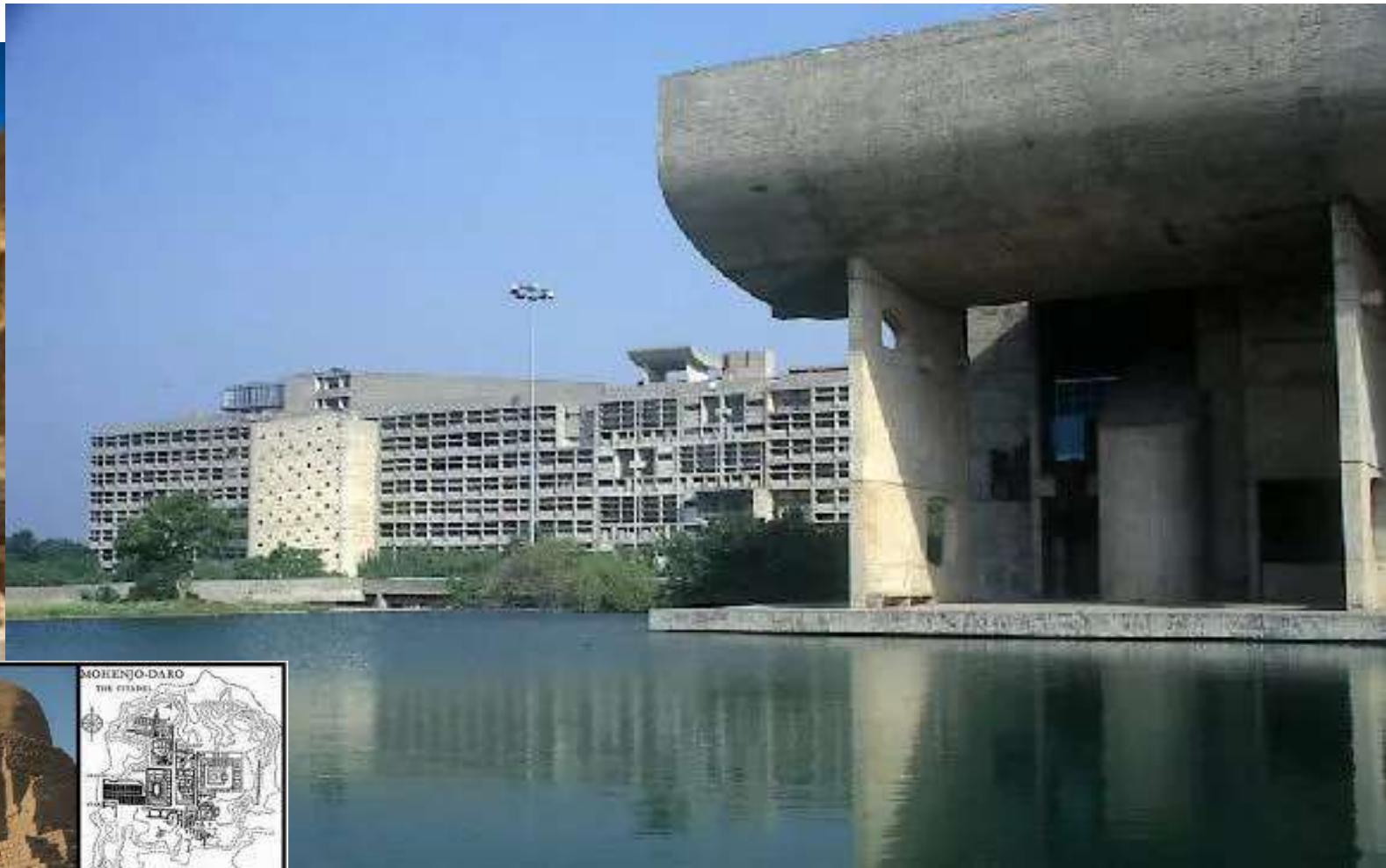


DEPTH & DECOMPOSITION: VALLEY OF THE KINGS

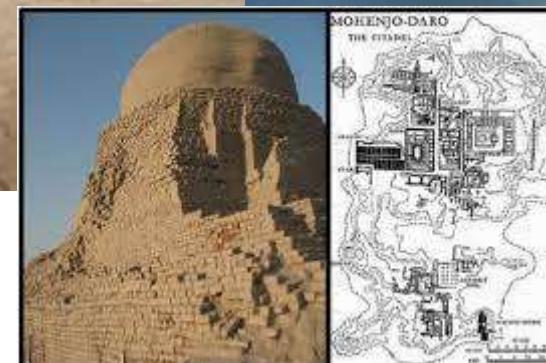


CITADEL

Grid and Layout CHANDIGARH

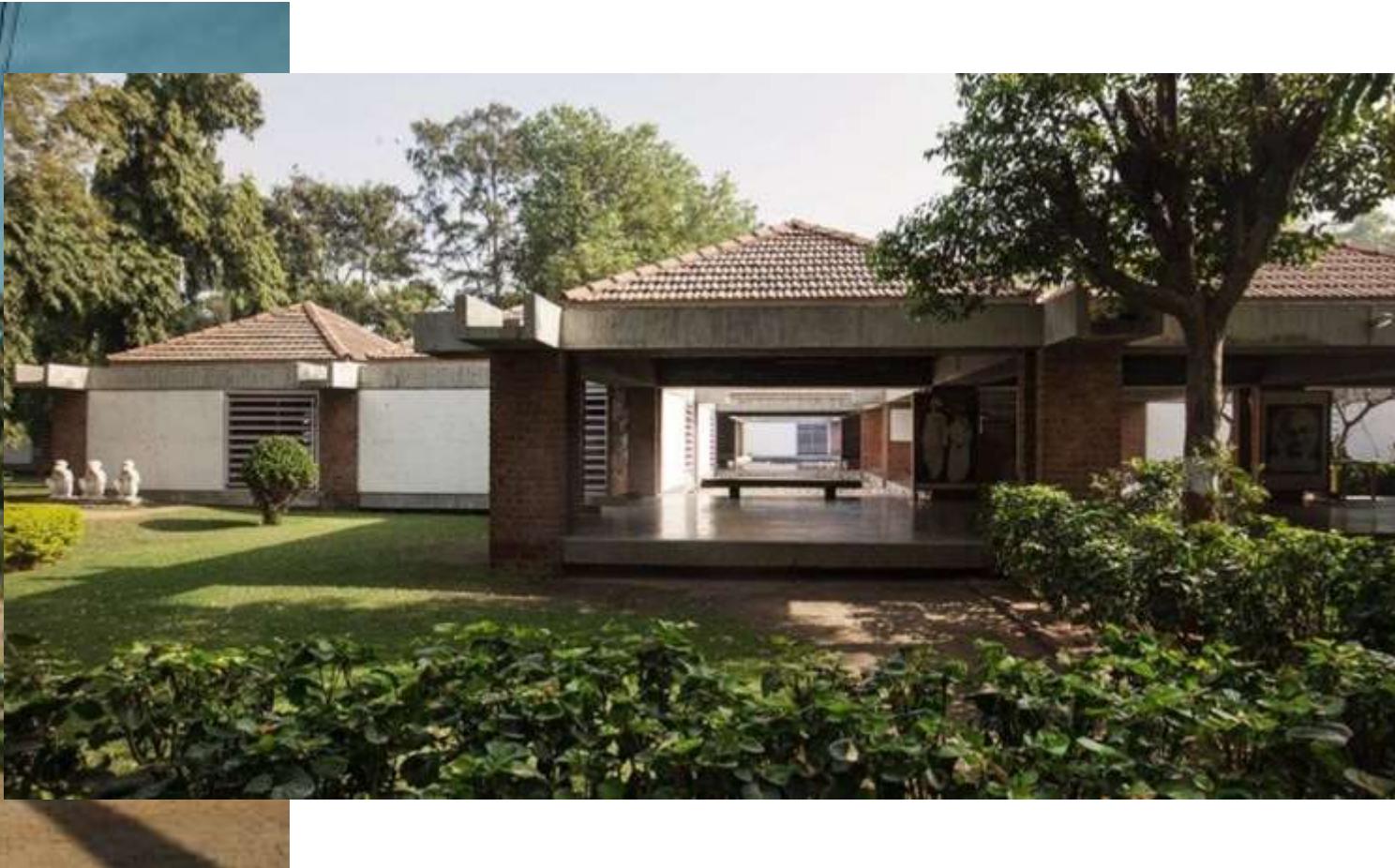


MOHENJODARO GRIDS



GABLED, EAVES, FRIEZE: BANGALOW

Grid and Layout TREAT TO CHARKA



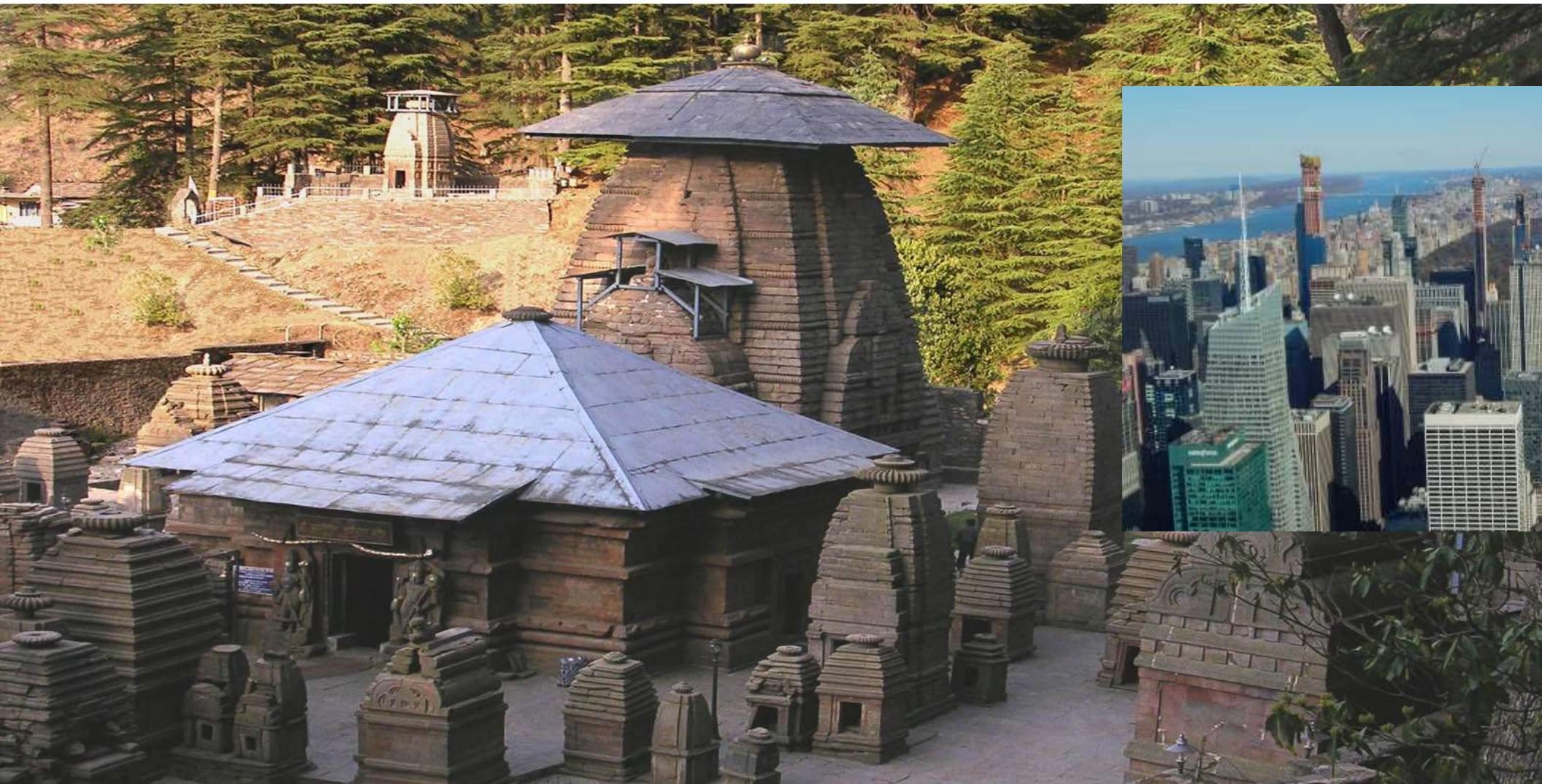
WHEEL OF TIME: KALA CHAKRA



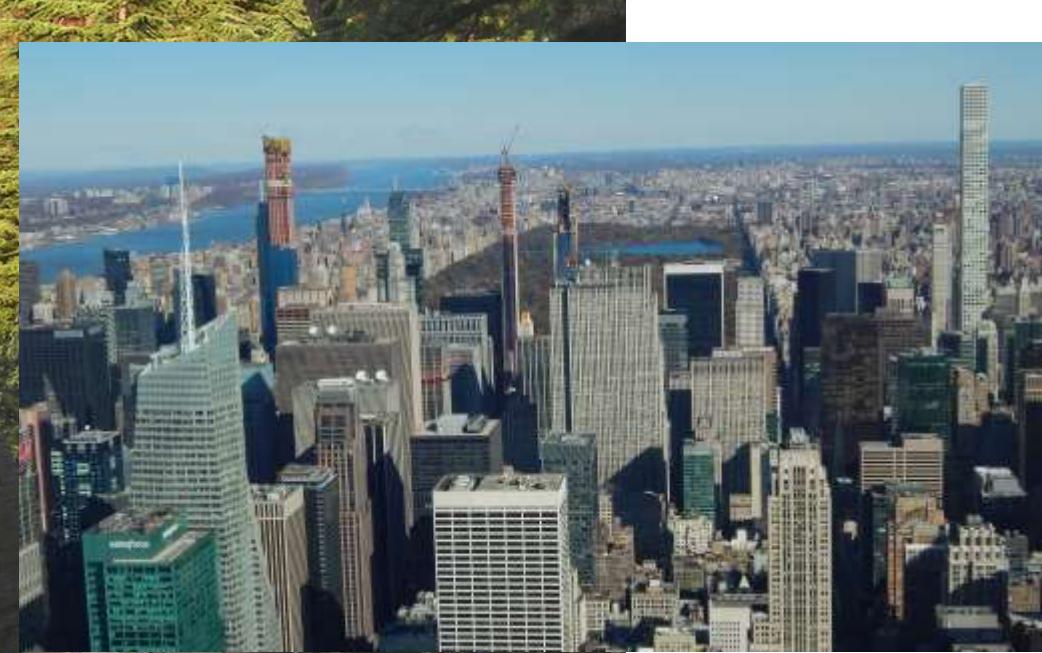
Grid and Layout SISTINE CHAPEL



MASS AGGLOMERATE : JAGESWARAM



Grid and Layout MANHATTAN



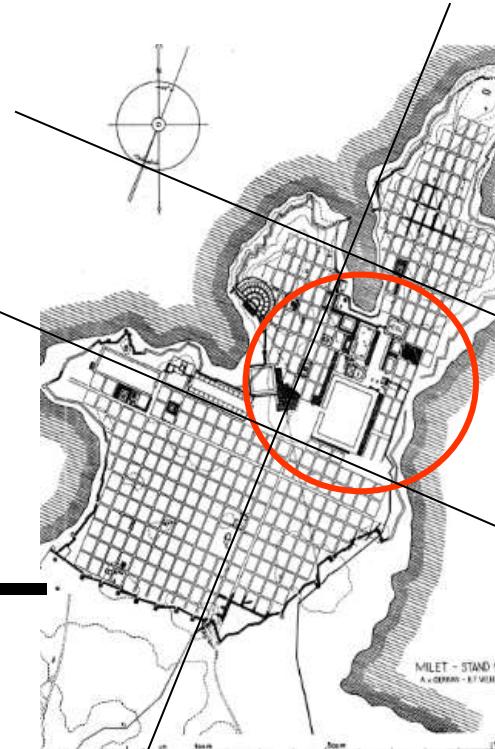
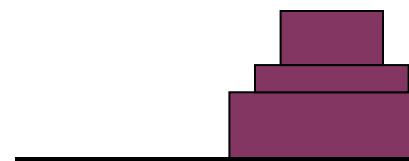
**DATUM:
KHAJURAJO**

**Grid and Layout
PARTHENON**



Indus – Greek connections : Mohenjodaro 3000 BCE

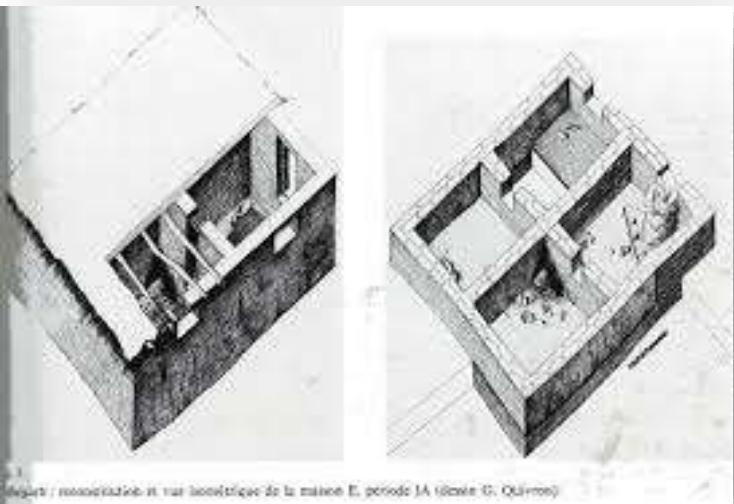
Grid and Layout Miletus 1200 BCE



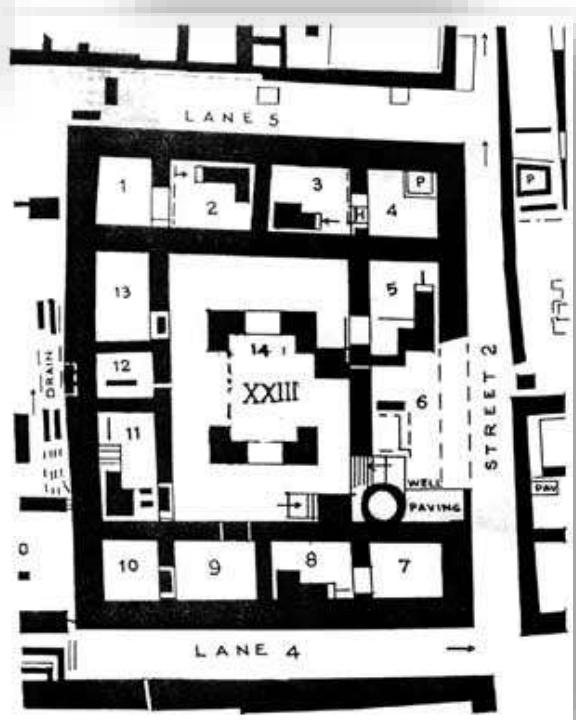
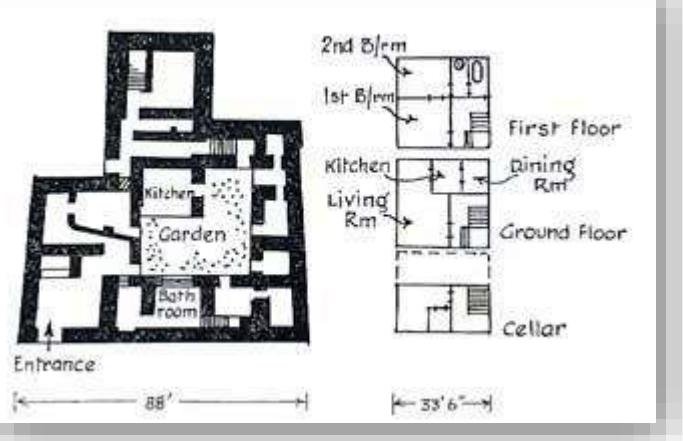
Higher functions (sacred) and lower (secular) functions

Built environment

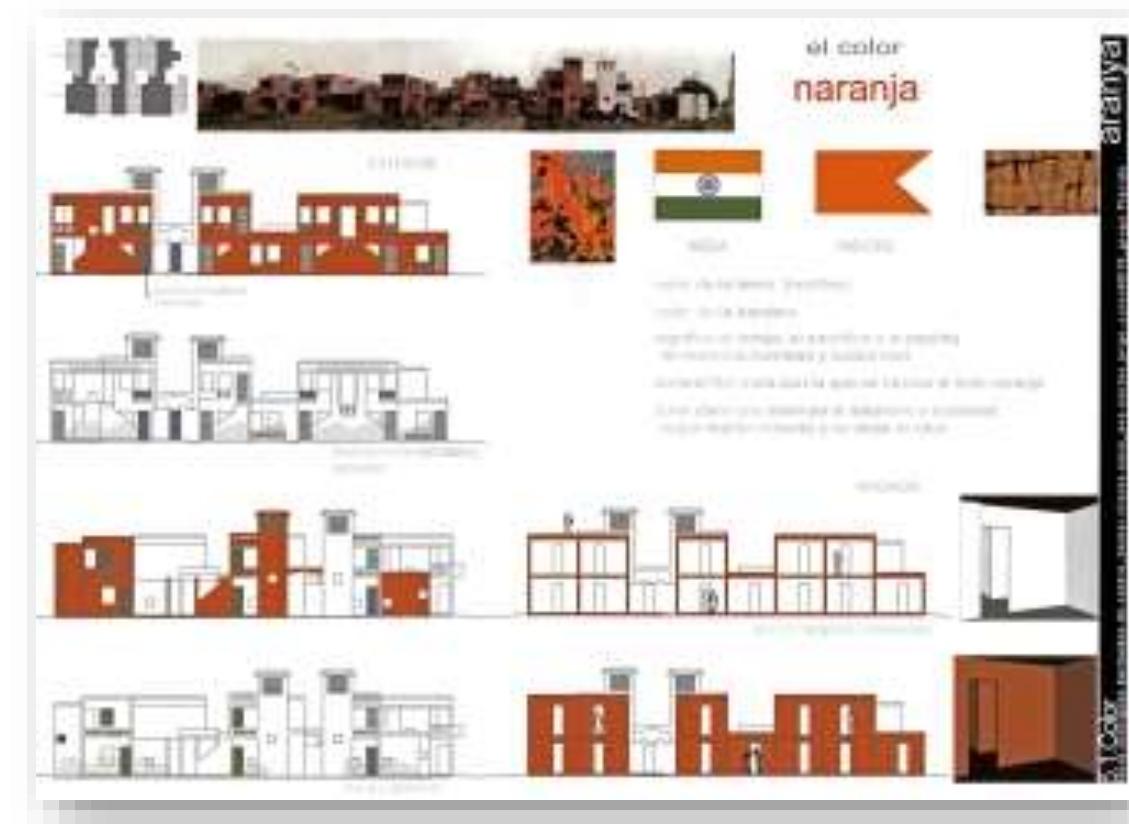
House plans



Figur : reconstitution et vue isométrique de la maison E, période IA (Niveau G, Quiryn)

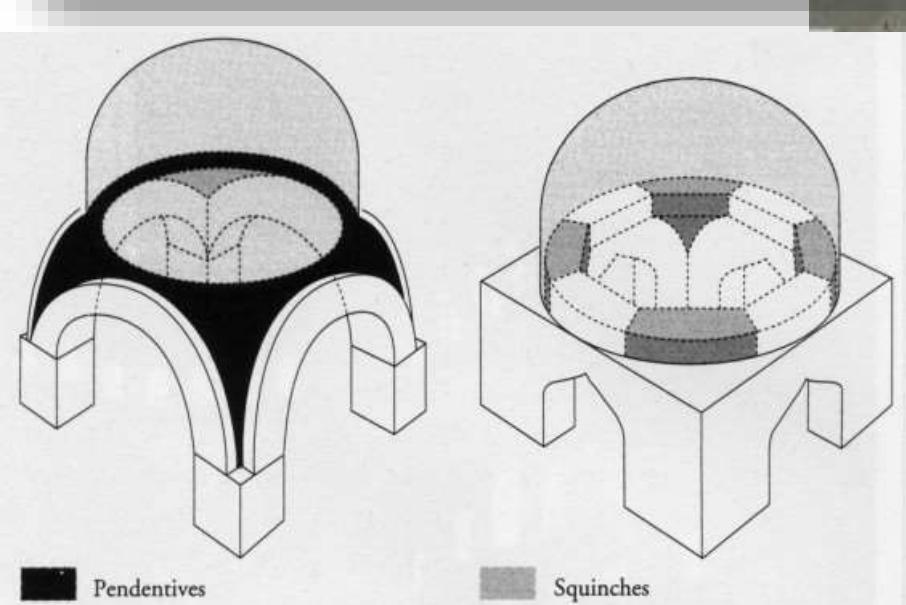
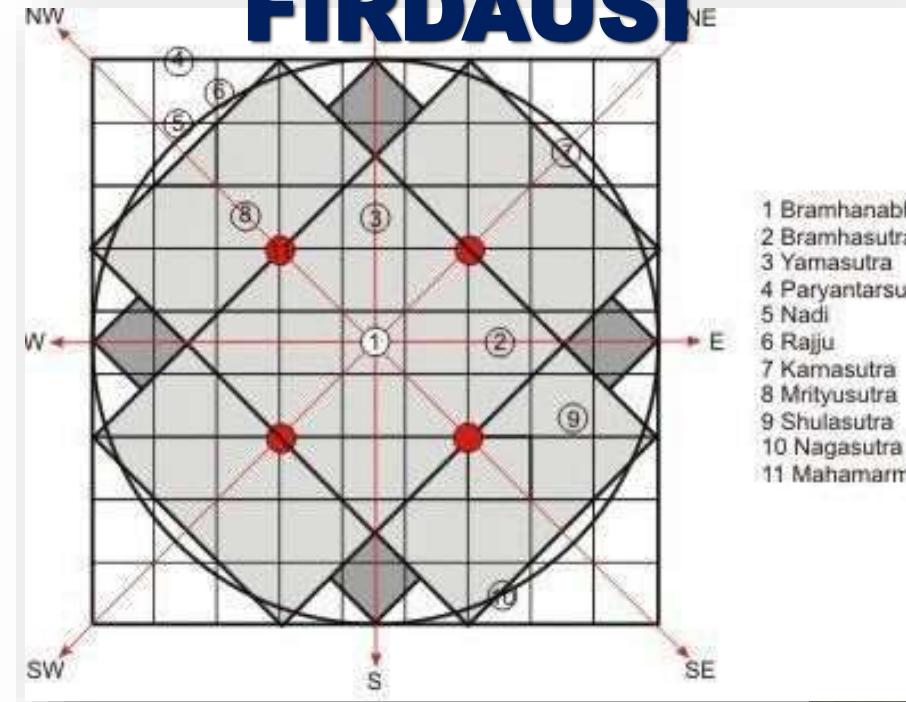


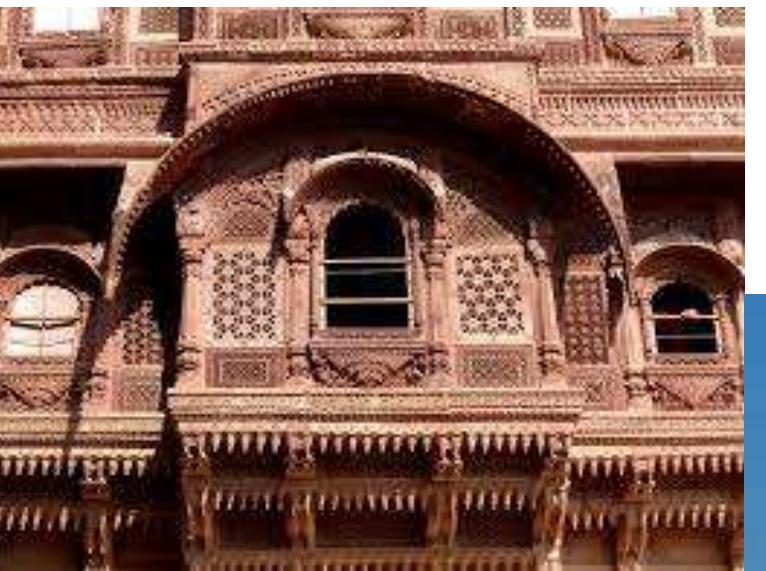
ARANYAK HOUSING



GARDEN PAR-DESH/ PARADISE: FIRDAUSI

Grid and Layout PANTHEON



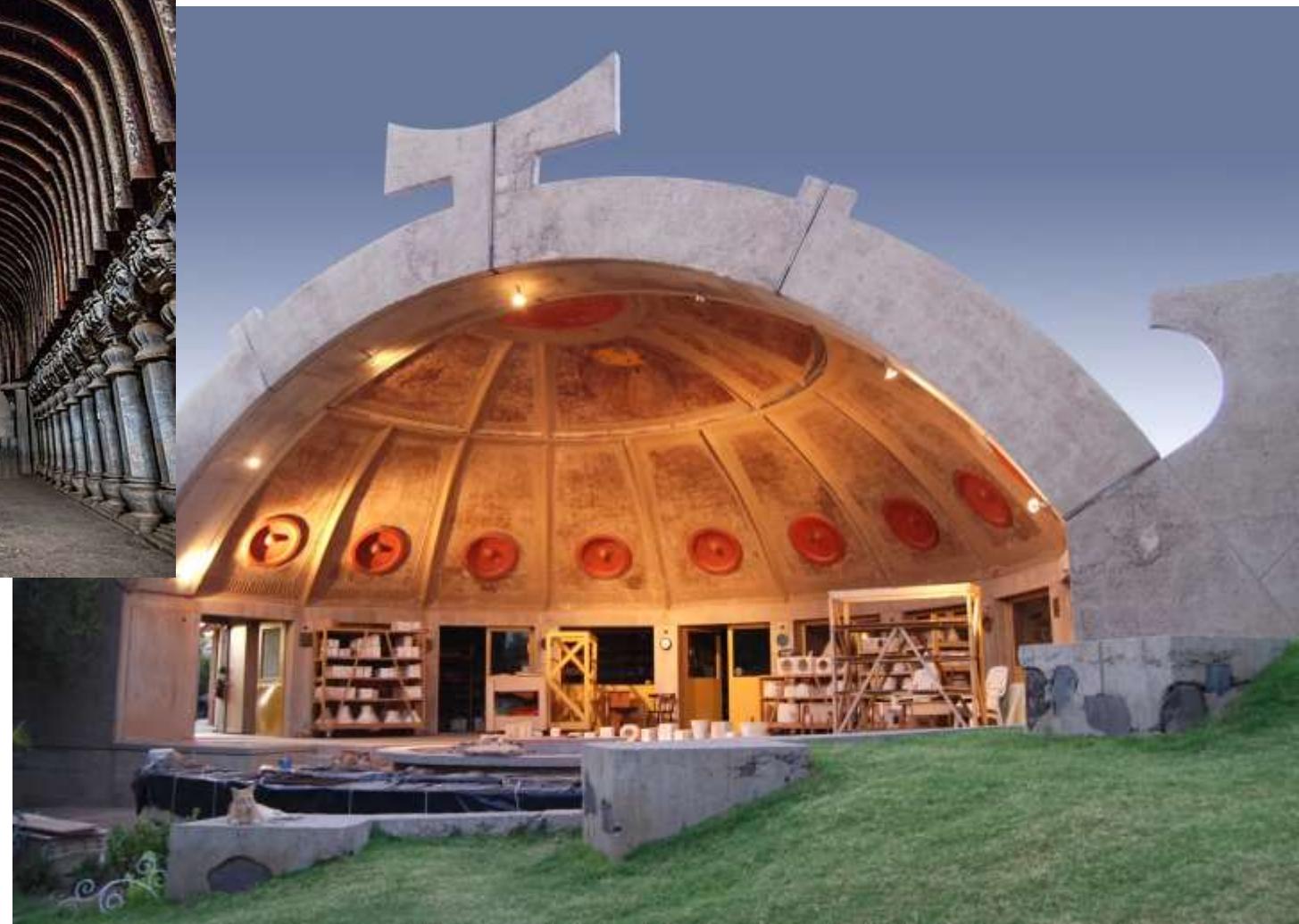


Indian Temple Arches St. Mark Basilica Venice

OVER ARCHING : IIM KARLA



Grid and Layout ARCO SANTI



THE COLUMN OF LIGHT: GARUDA FLIGHT



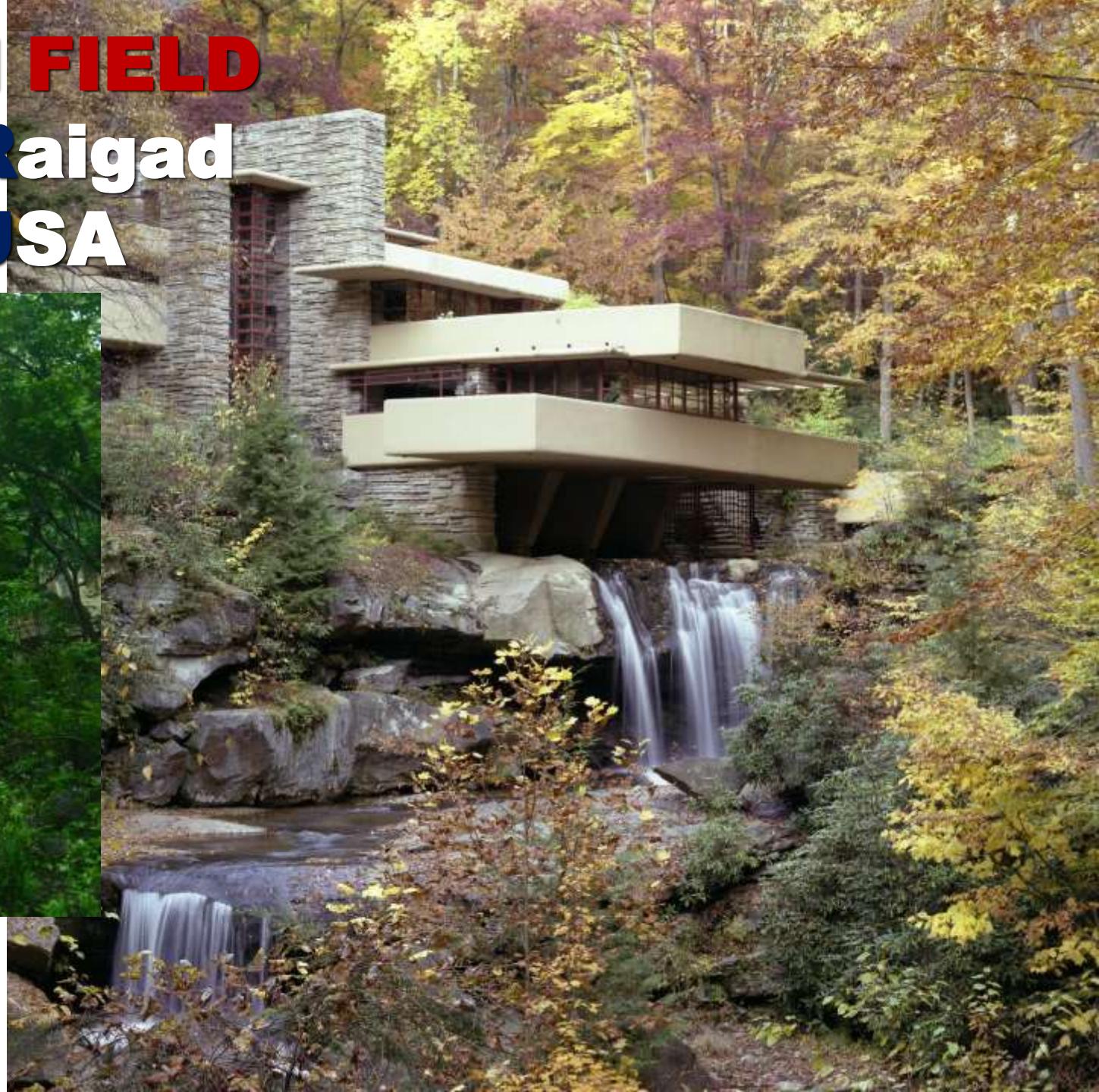
Grid and Layout ROME to DC



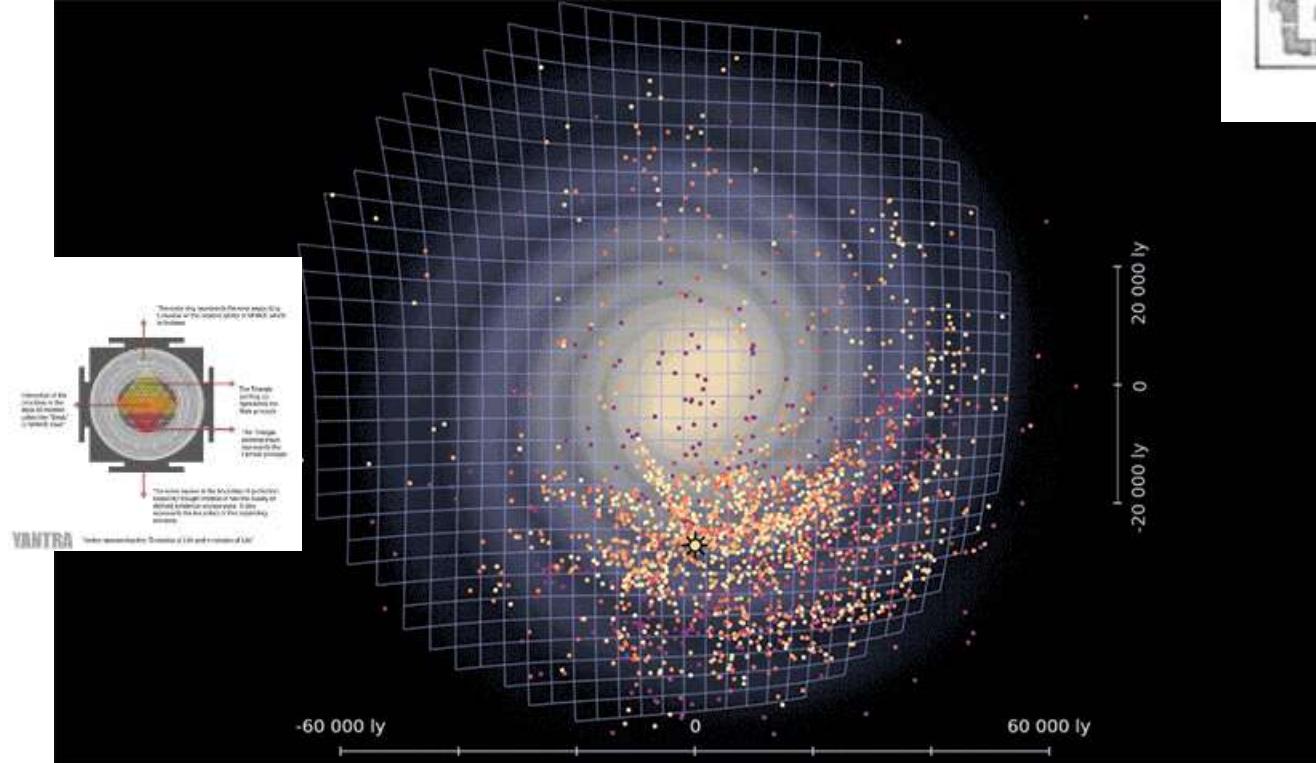
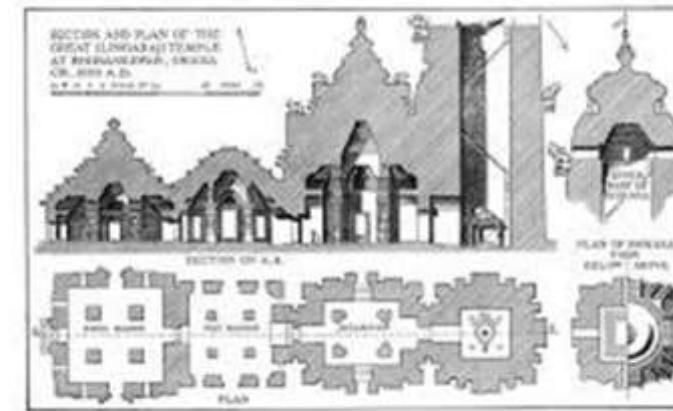
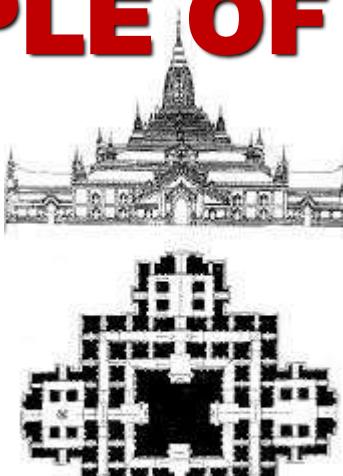
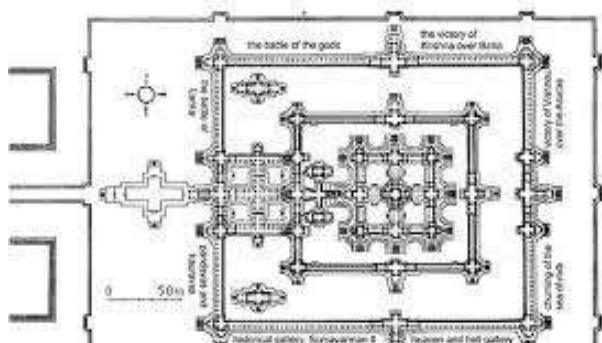
BIOTICS & GREEN FIELD

Kondana Caves, Raigad

Falling Water USA



LAYOUTS & EXPERIENCE: TEMPLE OF CHYSLAR NYC

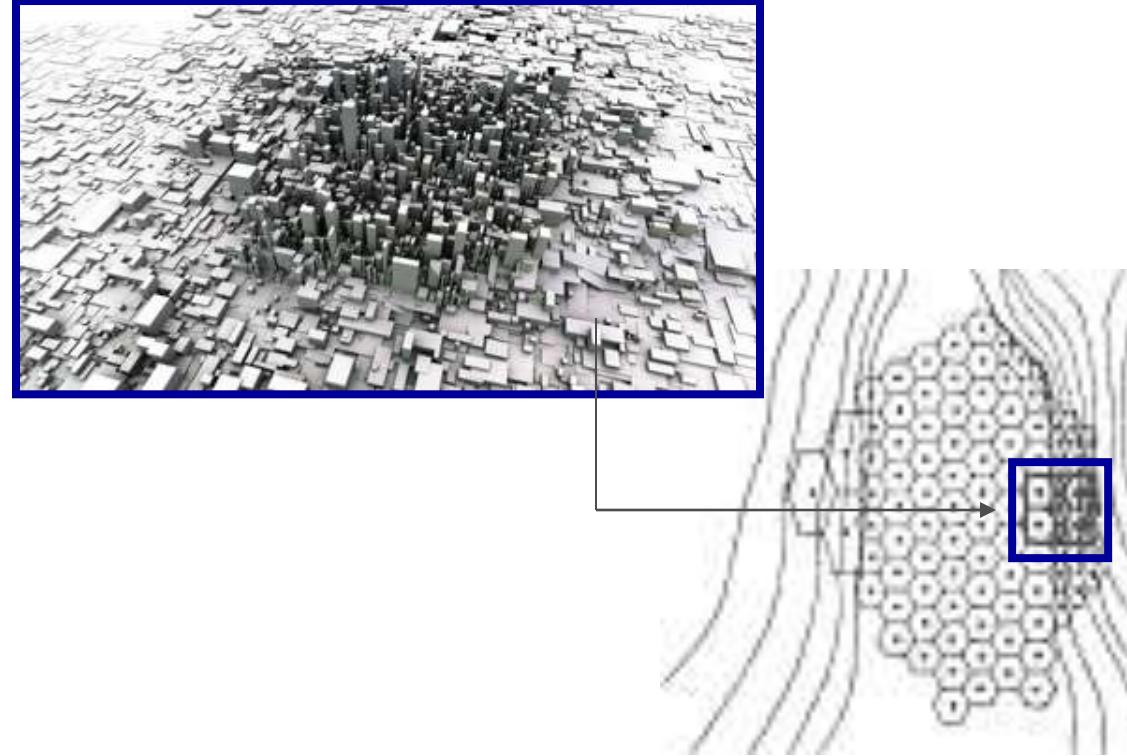


IMMORTAL ASPIRATIONS OVER TIME ...



Bryant Park NYC

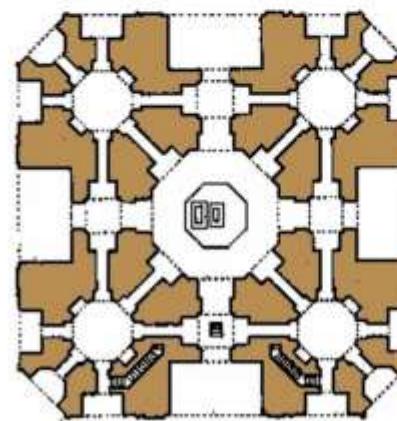
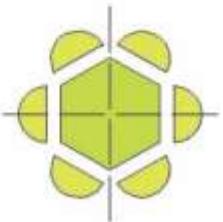
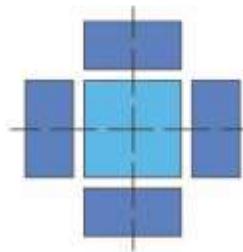
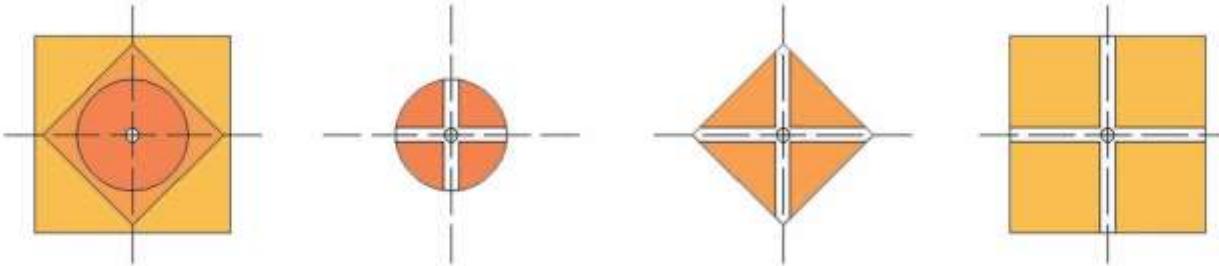
SYSTEMS OF DESIGN 2



- Organizing principles
- Ordering principles

VARIOUS ORGANIZATIONS

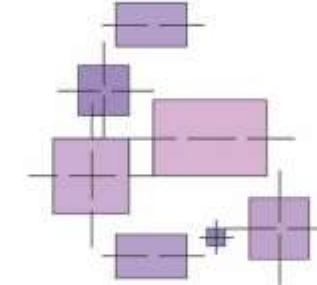
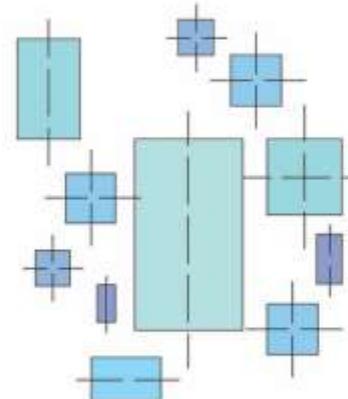
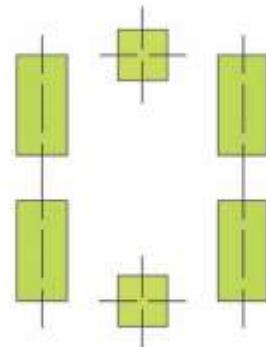
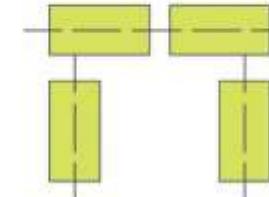
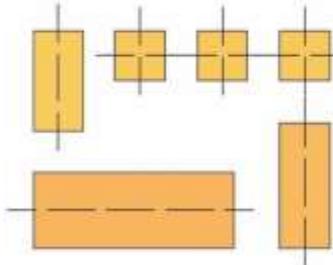
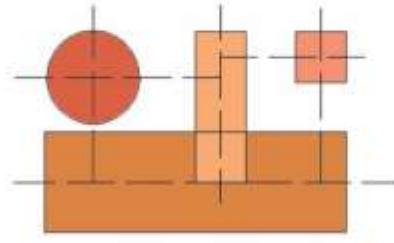
CENTRAL



TAJ MAHAL PLAN

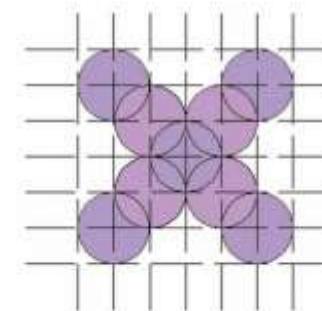
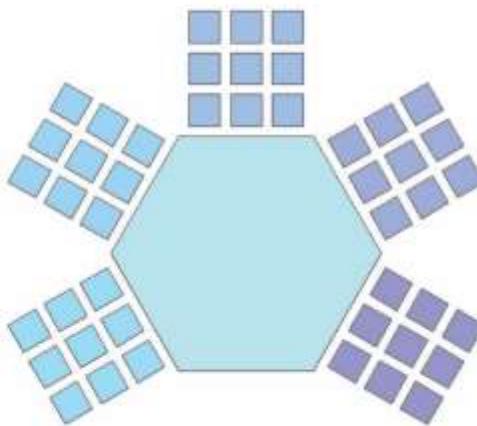
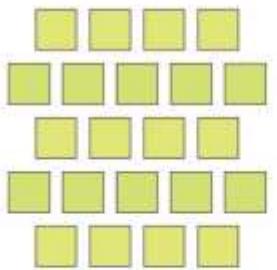
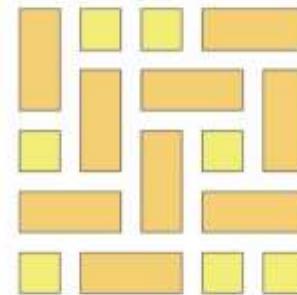
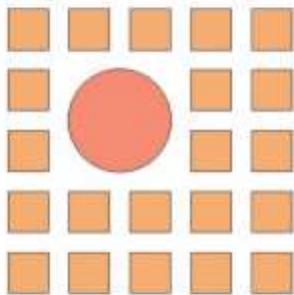
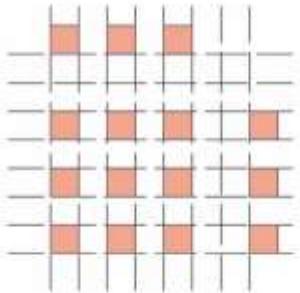
VARIOUS ORGANIZATIONS

CLUSTER



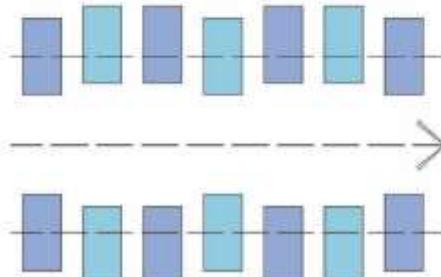
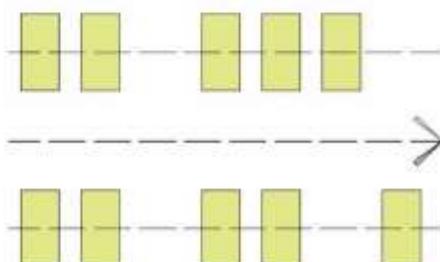
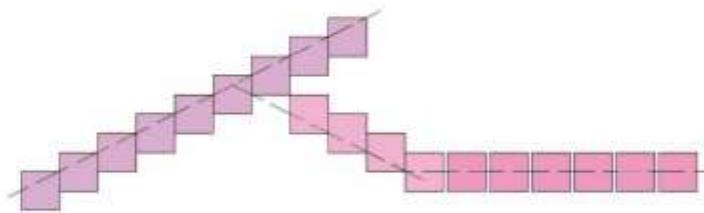
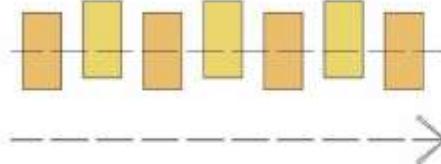
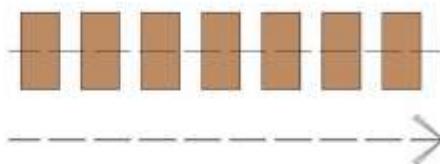
VARIOUS ORGANIZATIONS

GRID



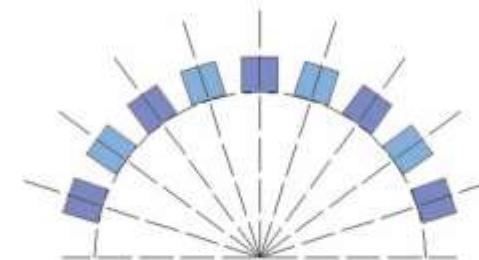
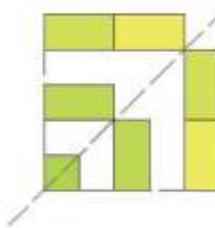
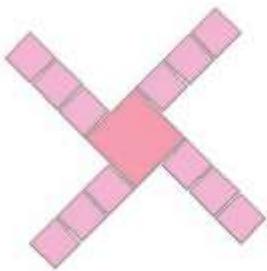
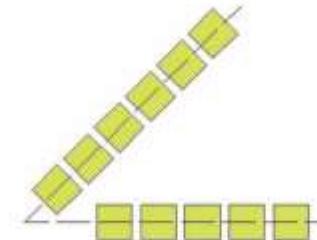
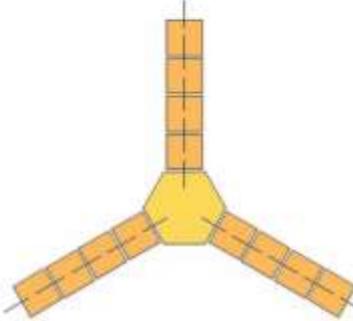
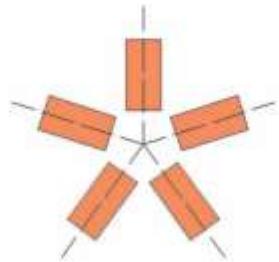
VARIOUS ORGANIZATIONS

LINEAR



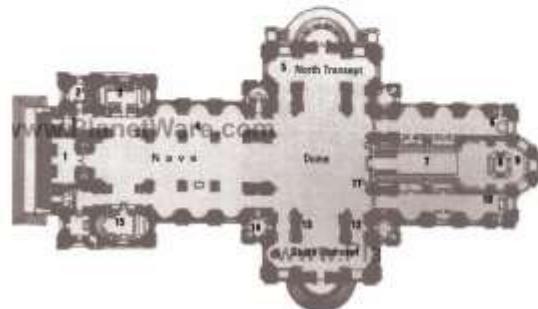
VARIOUS ORGANIZATIONS

RADIAL



ORDERING

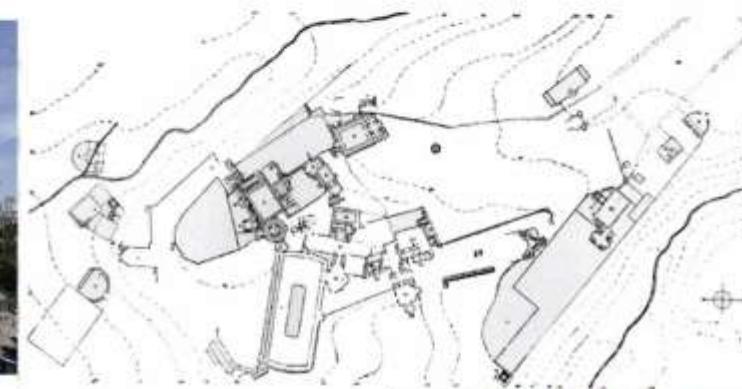
AXIS



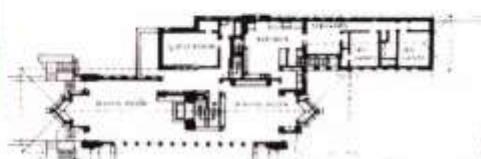
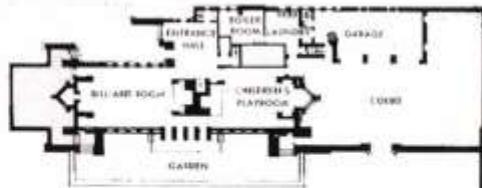
ST. PAUL'S CATHEDRAL



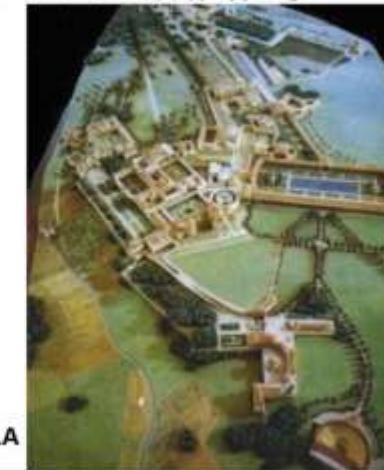
NETWORK



ROBIE HOUSE

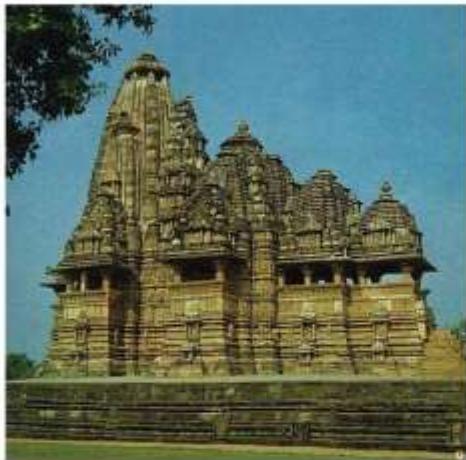


HADRIAN'S VILLA

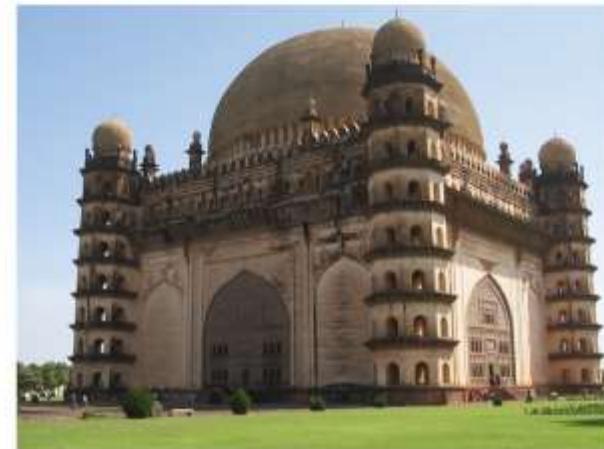


ORDERING

DATUM



HOLISTIC



ORDERING

HIERARCHY



CONDENSATE



ORDERING

REPITITION



UNIQUE



ORDERING

RHYTHM

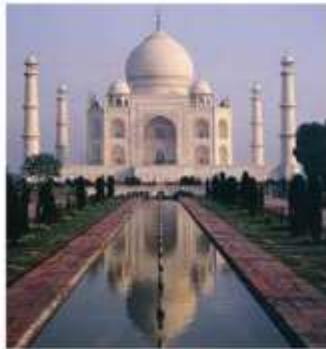


FROZEN



ORDERING

SYMMETRY

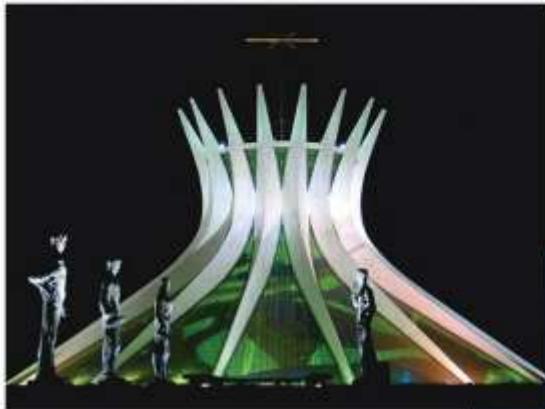


ASYMMETRY



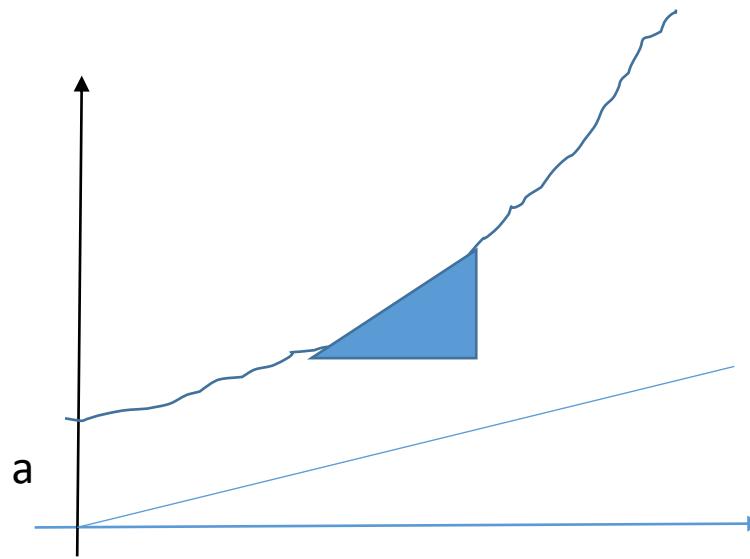
ORDERING

TRANSFORMATION



FIXATION





$$Y = a + bX \quad (1)$$

Or

$$Y = bx \quad (2)$$

a = intercept / past

b = future slope = dY/dX

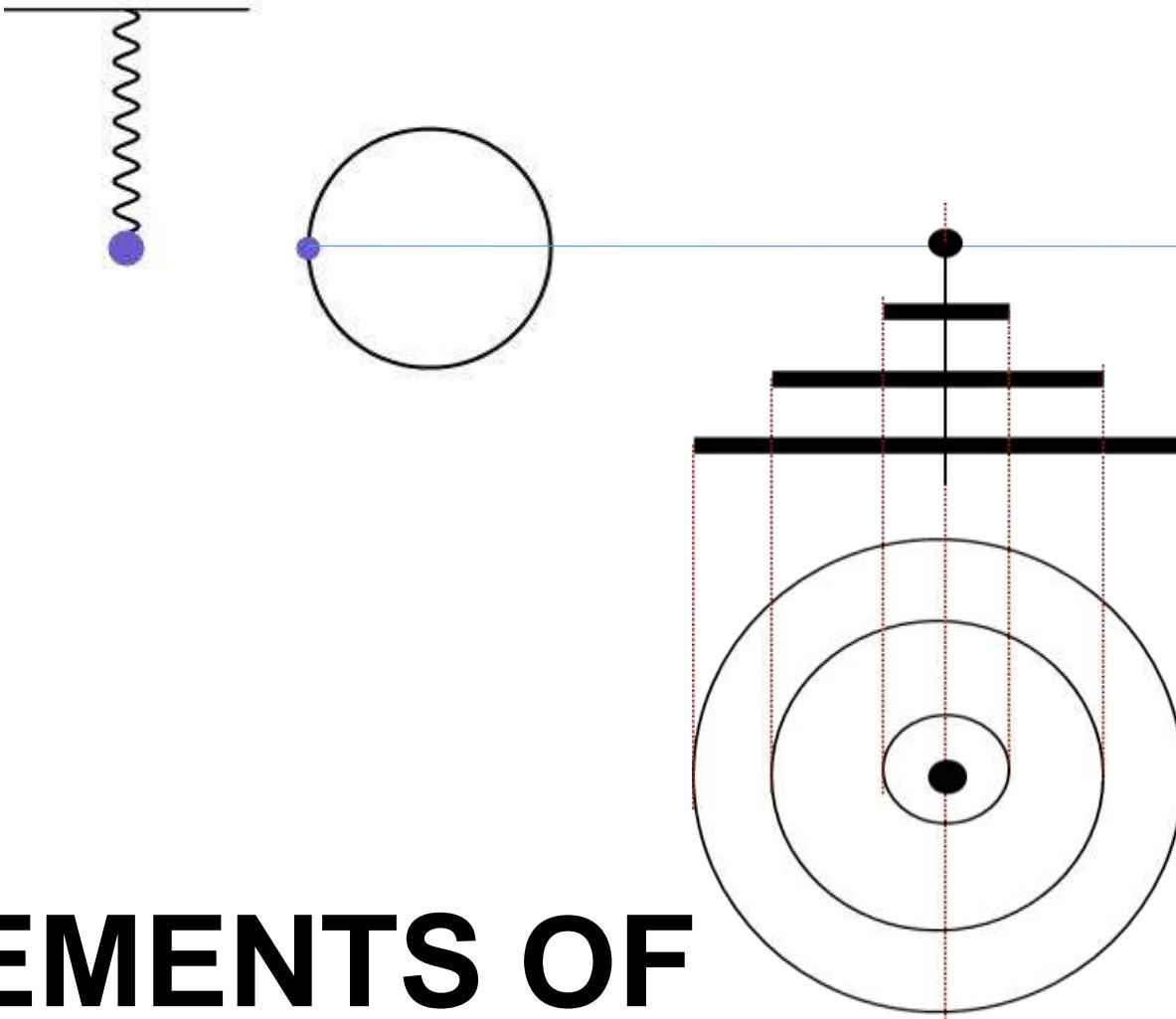


What is the most important constituent of ART ?

a) Traditional impact on Technology

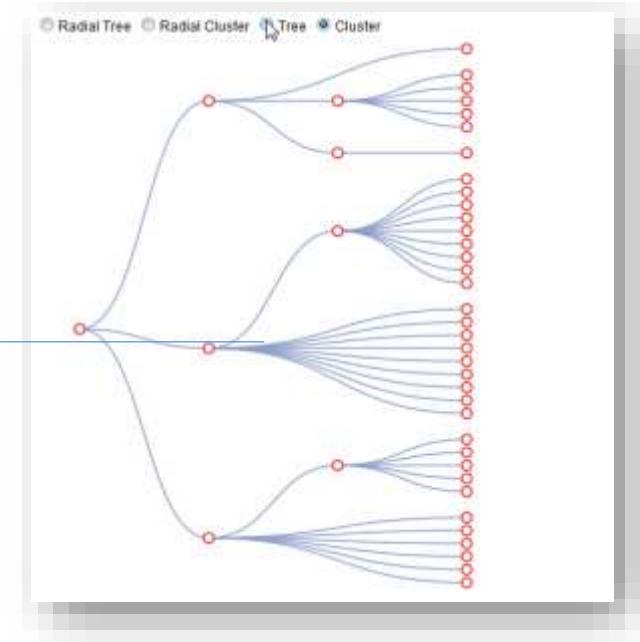
b) Modernization impacts on Society





ELEMENTS OF **SCIENTIFIC CONSTRUCTS**

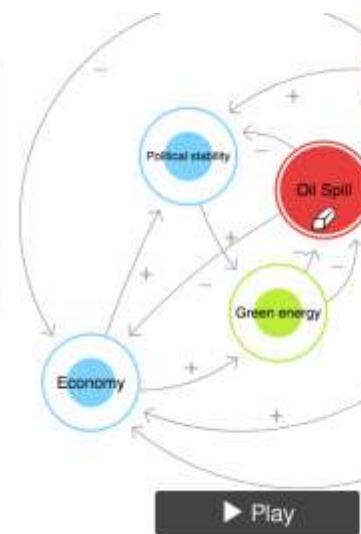
DESIGN 3



LESSONS:

Systems thinking in Regional & Community Planning: IKS rediscovered ..

A basis of Permaculture principles on whole systems thinking simulating patterns and resilient features observed in natural ecosystems and community resilience.



▶ Play

LOOPY (v1.1)
a tool for thinking in systems

▶ Home HOW TO WORK

Save as link
Embed in your website
Create a GIF using LOOPY

LOOPY is made by Nicky Case
with your support \$1000>
P.S. go read Thinking in Systems, by

[http://nickycase.com/loopy.html](#)

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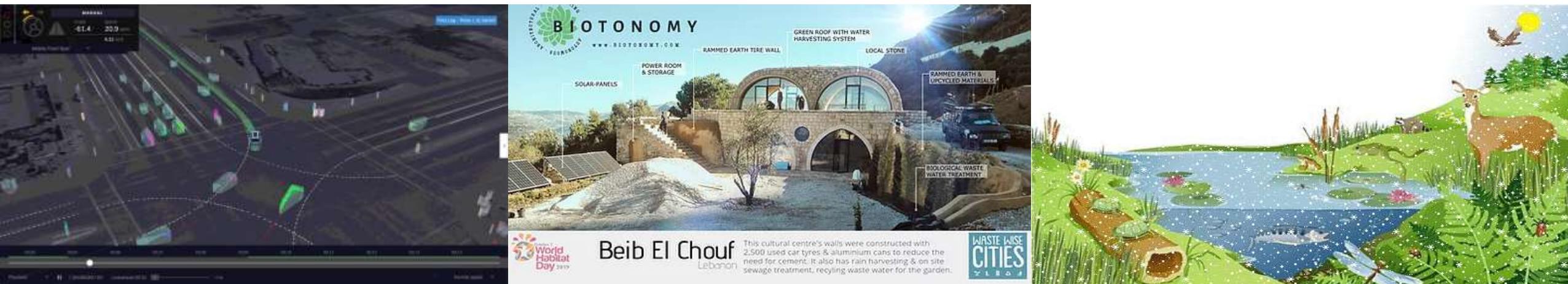
MakeAGIF.com



LESSONS:

Automated self-reliant urban and regional built systems: IKS rediscovered ..

An **autonomous self-sustained building** is a building designed to be operated independently and only inter-dependent and not dependent on infrastructural support services such as the electric power grid, gas grid, municipal water systems, sewage treatment systems, storm drains, communication services, & others.



LESSONS:

Network of Eco-Villages and Regional systems

An **ecovillage** is a traditional **community** with the goal of becoming more socially, culturally, economically, and/or ecologically **sustainable** and yet remain futuristic and aspirational.



Paradigm shift - “PHILOSOPHY AS A WAY OF LIFE”

“ONE CHANGES RATHER THAN CHANGING THE ENVIRONMENT”

Ar Amos Rappoport





A **sustainable habitat** is an **ecosystem** that produces food and shelter for people and other organisms, without **resource depletion** and without external wastage.

A **sustainable habitat** is **Deep Ecological** and **Bio-centric in nature**.

A **sustainable habitat** is a system to which a complex array of organisms, physical resources and functions are interlinked as a larger system.

A **sustainable habitat** expands on *ecological niches*.



In Habitat
We promote access to adequate housing to improve the quality of life for Colombians.

We provide training in healthy habits for adequate housing.

We encourage the active participation of people and communities in their own development.



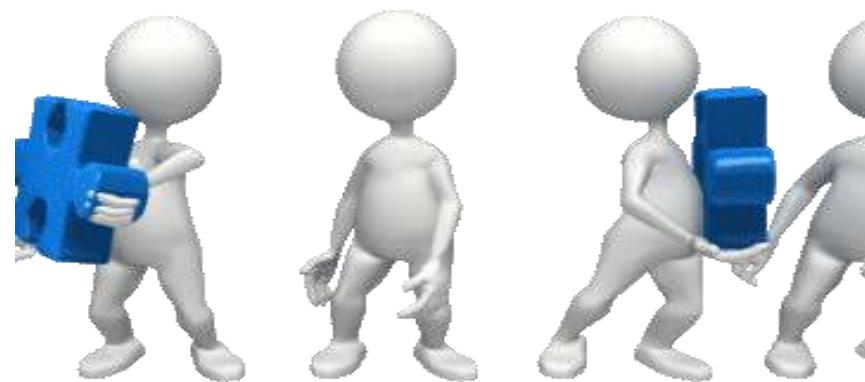
Economic growth	Environmental challenges	Social commitment
<p>A solutions provider that...</p> <ul style="list-style-type: none">contributes to customers' performance...helps improve the environment......contributes to social well-being...	<p>A responsible business actor that...</p> <ul style="list-style-type: none">invests locally...designs, manufactures and distributes simultaneously ensuring environmental protection......takes care of its employees...	<p>A socio-economic stakeholder that...</p> <ul style="list-style-type: none">cooperates with economic processes......involves the local community in decision-making......takes on social challenges...



SPIRIT OF CONSORTIUM & COOPERATION

In creating the sustainable habitats, regional planners, field anthropologists, environmental scientists, designers, engineers and **architects must come together.**

Integral researching ways to interconnect waste streams to production creates a more sustainable society by minimizing pollution.



Help to build the *Earth Observations for Sustainable Cities and Communities Toolkit*

Deadline Extended!
Apply by May 31, 2020

11 SUSTAINABLE CITIES AND COMMUNITIES

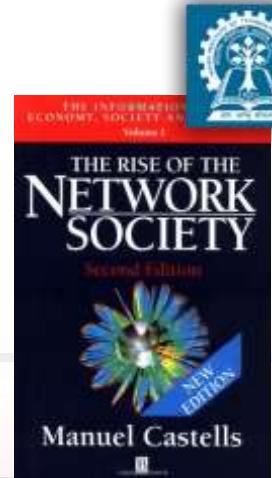
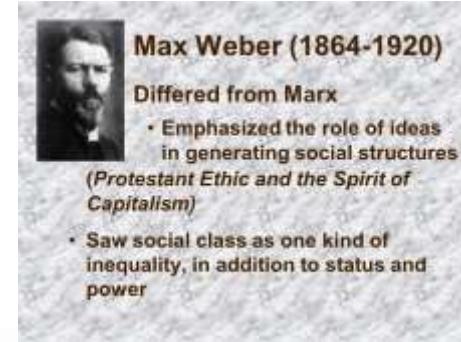
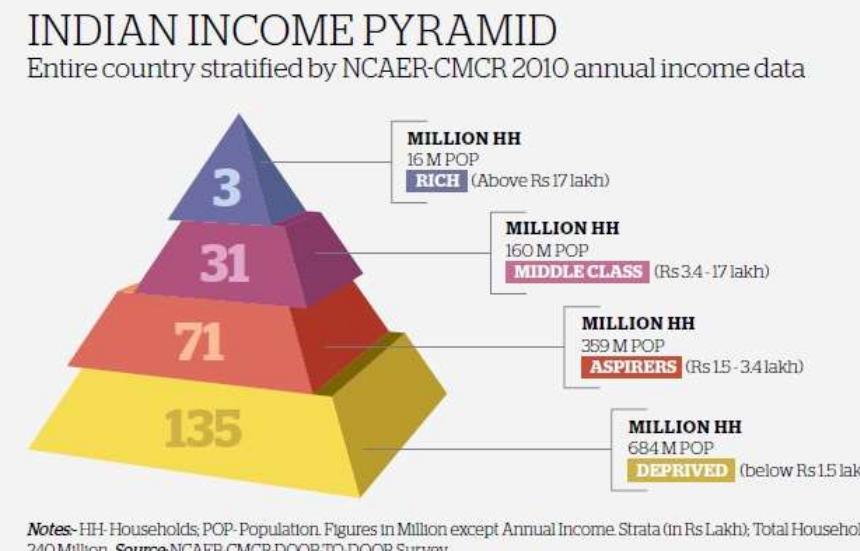
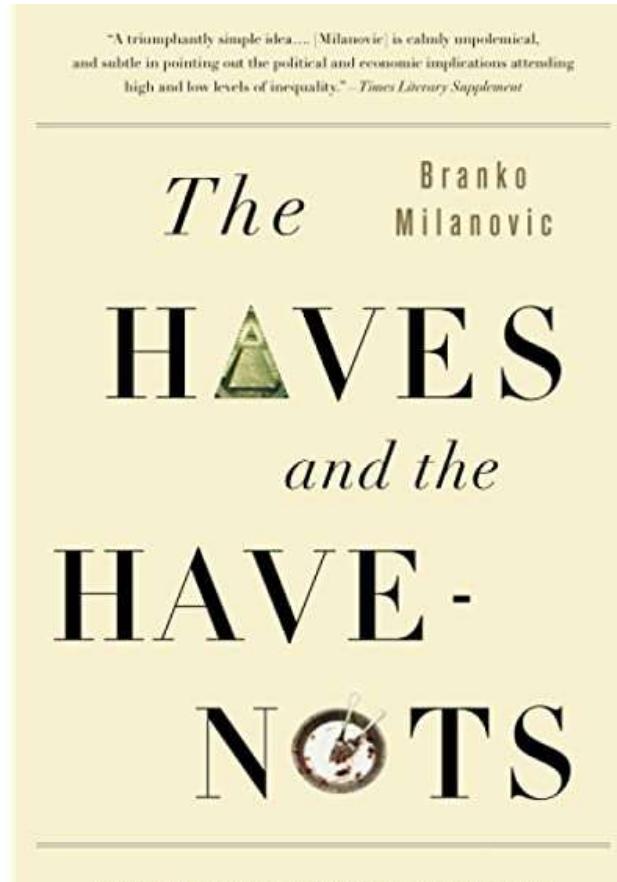
GEO GROUP ON EARTH OBSERVATIONS

UN-HABITAT FOR A BETTER URBAN FUTURE

EARTH OBSERVATIONS FOR THE SUSTAINABLE DEVELOPMENT GOALS



COLLECTIVE CHOICE ?? & SOCIAL WELFARE ?



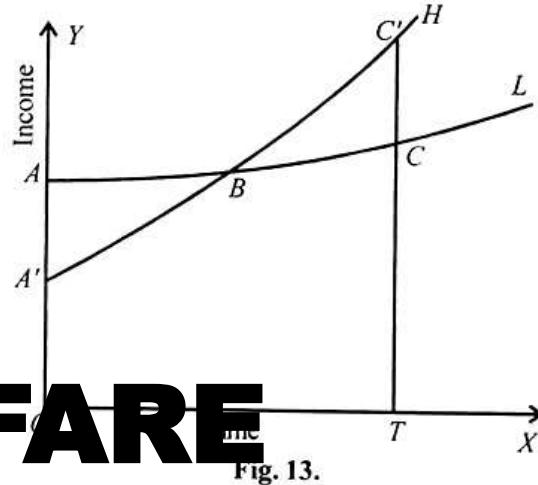
SHARU RANGNEKAR

IN THE WONDERLAND OF INDIAN MANAGERS



Illustrations by R.K. Laxman

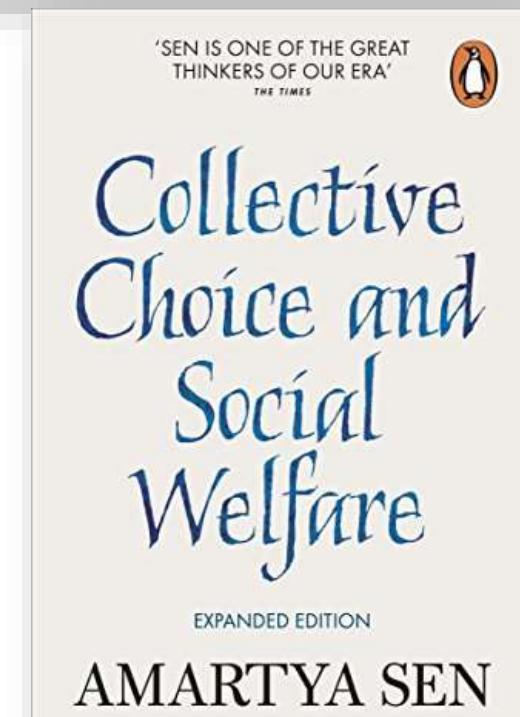
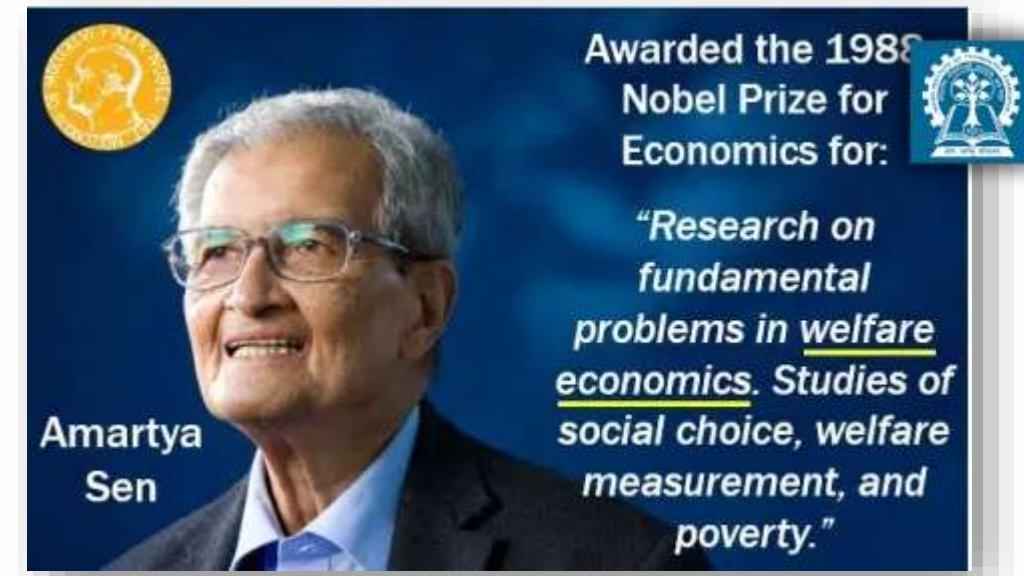
COLLECTIVE CHOICE & SOCIAL WELFARE



Welfare economics is a branch of economics that uses microeconomic techniques to evaluate well-being (welfare) at the aggregate (economy-wide) level.

Attempting to apply the principles of welfare economics gives rise to the field of public economics, the study of how government might intervene to **improve social welfare**.

Welfare economics also provides the theoretical foundations for particular instruments of public economics, including cost–benefit analysis, while the combination of welfare economics and insights from behavioral economics has led to the creation of a new subfield, behavioral welfare economics.



THE MICROSCOPIC VIEWPOINT

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