SACRED GEOMETRY

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This course demonstrates geometric proportional systems and how a well-proportioned building creates a physiological sense of ease, impacting mental health and community integration. We will recognize specific spatial requirements and their effect on communities by analyzing classical compositions like Byzantine, Romanesque, and Gothic. We will also seek to understand how the underlining geometry was used historically and how these methods apply to consider a humane and healthy environment.

Recent scientific studies show that specific regions of our brains harmonize with the geometry and arrangement of the spaces we occupy. People tend to walk faster through dead spaces and awkward architecture. But when harmony exists in a building composition, people will slow their pace and feel physically and emotionally connected to their surroundings. This response proves that careful planning of sites and buildings will elicit a calming and rewarding experience. Since traditional building practices have often considered the sanctuary of their inhabitants, especially with sacred architecture, this course will help strengthen and define the historical precedence.

With the collapse of literacy both in words and numbers, builders reverted to simple graphic/geometric means to design and order their creations. The sophisticated practices of antiquity were simplified and refocused on construction derived from Roman work. Two initial branches sprouted into what we now recognize as the Romanesque and the Byzantine. Geometry was seen as the workings of the cosmos from which the ligaments and forms could be ordered as a reflection of the divine order in the microcosm.

At the end of this course, participants will be able to:

1. Analyze classical Byzantine, Romanesque, and Gothic compositions with the appropriate methodologies. We will examine these classical compositions to recognize specific spatial requirements and their effect on the integration, harmony, and unity of communities.

2. To manipulate geometric scales and gain a working knowledge of geometric proportional systems that will enhance designers' observations about humans' use of space.

3. Gain an 'eye' for good conformation (the shape or structure of something) and understand the anatomy of the geometric forms.

4. Learn the canons of composition and how humans interact with others, and analyze dimensions of public, social, and personal scale.

SYLLABUS

SESSION ONE

1. Understanding conformation as the result of proportion applied to composition
2. Discussion of unity and harmony
3. Understanding the anatomy of geometric form
4. Understanding the "root" rectangles
5. Create a "musical" scale of inter-related rectangles

SESSION TWO

6. Sailing to Byzantium (Byzantine Churches)
7. Brilliance in the Dark Ages (Romanesque)
8. Dislodging the Masons (Gothic)
9. The Pre-Renaissance Classical
10. Survival
11. The Pre-Albertian Brotherhood
    Filippo Brunelleschi (1377-1446)
    Leon Battista Alberti (1404–1472)
    Bartolomeo Bon (1407 - 1464)
    Antonio Gambello (1458 - 1481)
    Mauro Codussi (1440–1504)
12. The return of the Geometric