

PATTERNS OF PERCEPTION

“3D Thinking” Pages 22, 292: Patterns of Perception follow a methodology that has been applied through time from antiquity to the present. The first books to appear that feature “perceptual lattices” are books on designs developed during the early Islamic period – in the middle-east, north Africa, and in Moorish Spain. References are Jules Bourgoïn “Les Elements de le’art Arab” (1879CE) and Albert Calvert’s “Moorish Remains in Spain” (1906CE). One particular design that appears in both Bourgoïn’s and Calvert’s books caught the attention of Dr. Ensor Holiday in the 1960’s CE. The design was from a window of the 1356CE Madrasa of Amir Salf al-din Sargatmish, Old Cairo, Egypt. The geometry of the window was based on “close-packing” circles – one of the primary design methods developed during the Abbasid period of early Islam. When I first met Ensor he had already begun to create new perceptual lattices based on the window’s close-packing circle arrangement. Working with Ensor I was inspired to generate the dynamic sphere geometry – a geometry that generates perceptual lattices in two- and three- dimensional space (see the page on this website and a number of the blogs). Visual Imagination and Invention

This short animation shows how images can be “perceived” in a design of one of the Images Design books, similar “perceptual patterns” can be see in Altair Design books and the “Crystal Cave” coloring book – see the “[Publications](#)” page. [Dynamic Sphere Geometry Patterns of Perception A Geometry of Early Islam; The Circle Method and a Window](#)

<http://rogerburrowsimages.com/wp-content/uploads/2017/12/My-Movie-7-1.mp4>

Patterns of Perception are “Perceptual Lattices” that stimulate the visual imagination and visual logic.

http://rogerburrowsimages.com/wp-content/uploads/2012/06/A1_2-desktop.m4v

Ensor's lattice variations of the window's geometry became the "ALTAIR Design" coloring book series now published by Wooden Books (UK) and Bloomsbury Publishing (USA). My "IMAGES Design" coloring books, published by Running Press (USA) are based on other circle packings generated by the "Dynamic Sphere Geometry." The "CRYSTAL CAVE" (publisher Bloomsbury Publishing) by Roger Burrows, Roger Penrose et al., features lattices based on 'sphere' and other types of visual logic. "MIND DOODLES," published by Park City Publishing, introduces types of visual logic that were developed in the ancient past. A history of the development of perceptual lattices in two- and three-dimensions will appear in one of the chapters of, "3D Thinking from Antiquity to the Future," to be published by Thames and Hudson Ltd., April 2018.

ALTAIR DESIGNS: The animation above shows the development of an Altair Design from a close packing arrangement of circles bounded by a square symmetry followed by connecting circle centers and adding internal polygons to create an Altair design (lattice) followed by images "seen" in the lattice. The animation shows how images can be reflected, rotated, and translated within the lattice as well as how images can be composed into complete scenes or repeating patterns. Everyone who colors the designs sees different images within the lattices. Altair can provide a creative, perceptual, and logical experience:

Press the image below to link to an interactive Altair Design Page:

Published By Wooden Books (UK)Publised By Wooden Books (UK)
Pattern Pad No 1: ISBN-10: 9781907155007 ISBN-13: 1907155000

Pattern Pad No 2 ISBN-13: 9781907155017 ISBN: 1907155015

IMAGES DESIGNS: are of the same family as Altair Designs and

are based on “close-packing” circles generated by the dynamic sphere geometry. They are geometrical <coloring books> that build the visual imagination and logic. In a way they are visual puzzles that can be solved in many more ways than one. The designs are open ended – there are no fixed images that you have to color – whatever you see will be unique. The geometry is such that whatever you find you can find again and again within the designs – rotated, reflected, translated. All the designs are based on strict mathematical and geometrical systems and it’s the math and geometry that gives the designs their unique property.

<http://rogerburrowsimages.com/wp-content/uploads/2012/03/ButterflyFish.m4v>

Hidden within each Images Design is an infinite number of pictures, forms, patterns, animals, flowers, and more. As you color, new images will pop out and beg to be explored. Use colored pencils, markers, or crayons to unlock your creative potential!

Have you ever seen something out of the corner of your eye – and just for a moment, not understood what it was? Have you ever looked at cracks on a wall, or clouds in the sky, and seen images of things – just like Winnie the Pooh seeing elephants in the clouds? All of these things give you a clue as to how ideas form in your mind. The younger you are, the less likely you will be to over interpret something that you see.

Images titles are published by Running Press in the USA and are available from the publisher or on Amazon – for Ages 6 years to 99 years. See Hidden Images (4 titles); Images 1 and 2 (These are jumbo editions); Images Books 1 through 5.

Here’s an animation of an Images Design:

<http://rogerburrowsimages.com/wp-content/upl>

[oads/2012/03/Eagles2.m4v](#)

Many of the designs are lattices derived from unique close packing circle and sphere arrangements – where the close packing circles repeat infinitely. Some designs are based on fractal like nesting polygon arrangements ...