

## Product Review

[As Robert Prechter and others have observed, phi relationships are characteristic of the Wave Principle. Socionomics theorizes that the Elliott wave model describes the naturally occurring pattern of social-mood fluctuation. Drew Ross's review shows how PhiMatrix's latest release helps users explore the ratio in their everyday worlds. —Editor]

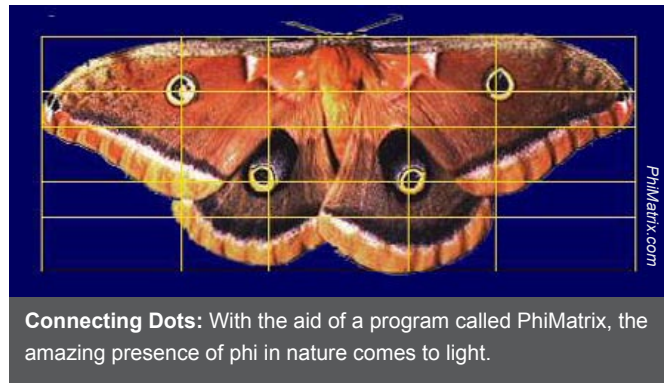
# PhiMatrix Brings Phi to Life

## Experts and Novices Can Discover Phi in Images

by Drew M. Ross

Phi both fascinates and puzzles me. A proportion of irrational magnitudes, it flourishes in manifold forms throughout nature, specifically in dimensions of growth. We find it even at the atomic and quantum levels, suggesting that it may be a proportion upon which nature is built.<sup>1</sup> As Robert Prechter and others have observed, we see it manifest in group behavior as well.<sup>2</sup>

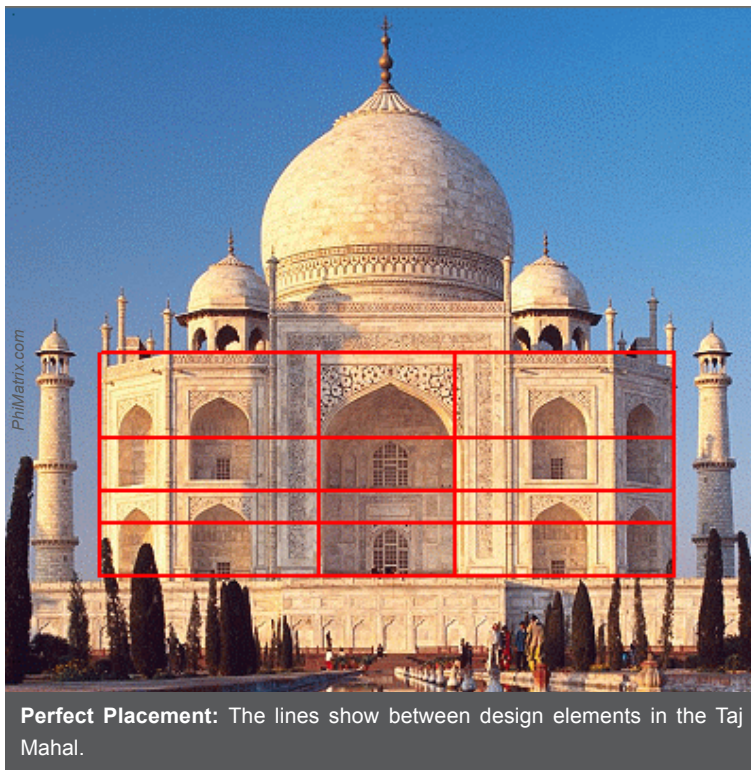
Phi's relevance to our world has been explored for a long time. But, inexplicably, it doesn't get nearly as much attention as its irrational cousin pertaining to the circle, pi. And when you mention phi, people often say, "Do you mean pi? Did you see that movie where the guy takes the drill to his head?"<sup>3</sup> No, but phi can be just as vexingly irrational! Even those of us who can recite phi equations don't fully grasp their relevance.



Exploring phi in our world used to require a steep learning curve due to a requisite advanced understanding of algebra and geometry. But that is changing. PhiMatrix has released Version 1.618, an upgrade of their unique program. 1.618 exponentially expands the user's ability to explore phi. The program lets you pursue phi without delving into mathematics at all.

### Details

PhiMatrix is a phi-based grid that stays on top of any image on your monitor. (Traders will recognize many of its functions as similar to the Fibonacci relationship grids in financial software.) The compact control panel offers a range of features that enables the user to customize the size, shape, color, opacity, and ratios of the grid; most of the controls are mouse driven as well. Preloaded patterns measure proportions in rectangles, circles, triangles and various diagonals. A variety of grid ratio options make it possible to explore not only phi but also the square root of phi, the cube root of phi, phi squared, the Fibonacci series, the Levin Dental Grid and the root rectangles.



PhiMatrix enables users to copy previously analyzed images as well as discover for themselves phi relationships in nature, art and architecture. You can save your work with notes. I found PhiMatrix easy to use, and it fulfilled my expectations of today's software.

Skeptics would note that it is not difficult to find mathematical relationships within just about any set of numbers or objects, and not all of them are significant. PhiMatrix users should bear this in mind.

### Pursuing Phi's Meaning

For me, the quest to understand phi brings to mind Plato and his famous idealistic proposal: All things on earth are reflections, and poor ones at that, of Ideal forms. This has been widely interpreted to mean that everything has a heavenly form, from the human figure to the sunflower. For that reason, many people criticize Plato's proposal as unrealistic.

(continued on page 10)

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## Meeting Phi

Phi has a long, though sometimes mystical, history. You can find it in the early math of the ancient Egyptians and ancient Greeks, and you can find arguments claiming it isn't there. Regardless of your beliefs, the recent boom in books and resources on phi gives you plenty to explore.

### 1. On the Web

<http://goldennumber.net/>: The creator of PhiMatrix, Gary Meisner, also founded this website, which has become a hub of phi information. The site has extensive explorations from a general overview to the latest in quantum physics.

<http://www.maths.surrey.ac.uk/hosted-sites/R.Knott/Fibonacci/phi.html>: An educational website that invites you to make calculations—an essential part of understanding phi.

<http://www.socionomics.net/?p=705>: Euan Wilson's article on the Fibonacci sequence and phi, an excellent primer for *The Socionomist* readers (free to all).

See also <http://en.wikipedia.org/wiki/Phi> for a quick list of phi's use as a symbol in many scientific fields.

### 2. Books About Phi

***The Golden Ratio: The Story of PHI, the World's Most Astonishing Number***, Mario Livio (2003, Broadway). Dr. Livio, an astrophysicist, wrote the most comprehensive and contemporary view of phi from a modern science perspective.

***The (Fabulous) Fibonacci Numbers***, Alfred Posamentier and Ingmar Lehmann (2007, Prometheus

Books). Anything about Fibonacci is inherently tied to phi. This book for the general reader takes you into the mathematical adventure of applying phi in the world.

***The Divine Proportion: A Study in Mathematical Beauty***, H.E. Huntley (1970, Dover). A classic and an inspiration for your own study of phi.

### 3. Applying Phi

Following are books in which authors have applied phi to other interesting areas. In each case, you can use PhiMatrix and copy their work as examples.

***The Power of Limits: Proportional Harmonies in Nature, Art, and Architecture***, György Doczi (2005, Shambala).

***The Elements of Divine Symmetry*** (1919, Yale) and ***Dynamic Symmetry: The Greek Vase*** (1920 orig., 2003, Kessinger Publishing) by Jay Hambidge.

***The Spiral Calendar***, Christopher Carolan (1992, New Classics Library), shows the importance of phi in time relationships in the financial markets.

***Elliott Wave Principle: Key to Market Behavior***, A.J. Frost and Robert Prechter, Jr. (1978-2005, New Classics Library) as well as Prechter's application of phi to financial charts in ***Beautiful Pictures from the Gallery of Phinance*** (2003/2010, New Classics Library). Both tomes will help you gain an understanding of phi's role in human affairs.

—Drew Ross

Yet studying phi in nature has led me to a different interpretation. The welcome sign at Plato's Academy read, "Let no one ignorant of geometry enter here." We can surmise that his Ideal forms were geometrically based. In turn, given the Greeks' reverence for phi (for example, in nature's "five platonic solids") it follows that Plato's Ideal forms may well be phi-based. That is, perhaps Plato saw phi as a building block of nature, as well as that to which nature aspires.

With this in mind, we can see the importance of others who have endeavored to illustrate the role of phi in nature—pioneers such as Hambidge, Elliott and Prechter. PhiMatrix is just a tool to explore that idea.

[www.phimatrix.com](http://www.phimatrix.com) \$19.95 individual, \$29.95 commercial, Windows and Mac.

*Drew Ross is a writer, editor and phi fan. He lives in Heidelberg, Germany.*

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## CITATIONS

<sup>1</sup>Tyng, Anne Griswold. (1975) *Simultaneous Randomness and Order: The Fibonacci-Divine Proportion as a Universal Forming Principle* (pp. 24-25). University of Pennsylvania, Ph.D., dissertation in architecture. Ms. Tyng proposed the idea of design at the atomic level. See also Imbeault, M. (2010, January 01). Golden Ratio Discovered in a Quantum World. e! Science News, Retrieved from <http://esciencenews.com/articles/2010/01/07/golden.ratio.discovered.a.quantum.world>.

<sup>2</sup>Prechter, Robert R. (1999). *The wave principle of human social behavior and the new science of socioeconomics*. Gainesville, GA: New Classics Library.

<sup>3</sup>Aronofsky, D., Watson, E., & Vogel, S. (Producers) & Aronofsky, D. (Writer/Director). (1998). Pi [Motion Picture]. United States: Artisan Entertainment.

*The Socionomist* helps readers understand socioeconomics and prepare for major changes in social mood. We also present the latest essays in the field of socioeconomics; we anticipate that many of the hypotheses will be subjected to scientific testing in future scholarly studies.

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Most economists, historians and sociologists presume that events determine society's mood. But socioeconomics hypothesizes the opposite: that social mood determines the character of social events. The events of history—such as investment booms and busts, political events, macroeconomic trends and even peace and war—are the products of a naturally occurring pattern of social-mood fluctuation. Such events, therefore, are not randomly distributed, as is commonly believed, but are in fact probabilistically predictable. Socioeconomics also posits that the stock market is the best available meter of a society's aggregate mood, that news is irrelevant to social mood, and that financial and economic decision-making are fundamentally different in that financial decisions are motivated by the herding impulse while economic choices are guided by supply and demand. For more information about socioeconomic theory, see (1) the text, *The Wave Principle of Human Social Behavior* © 2011, by Robert Prechter; (2) the introductory documentary *History's Hidden Engine*; (3) the video *Toward a New Science of Social Prediction*, Prechter's 2004 speech before the London School of Economics in which he presents evidence to support his socioeconomic hypothesis; and (4) the Socioeconomics Institute's website, [www.socioeconomics.net](http://www.socioeconomics.net). At no time will the Socioeconomics Institute make specific recommendations about a course of action for any specific person, and at no time may a reader, caller or viewer be justified in inferring that any such advice is intended.

