

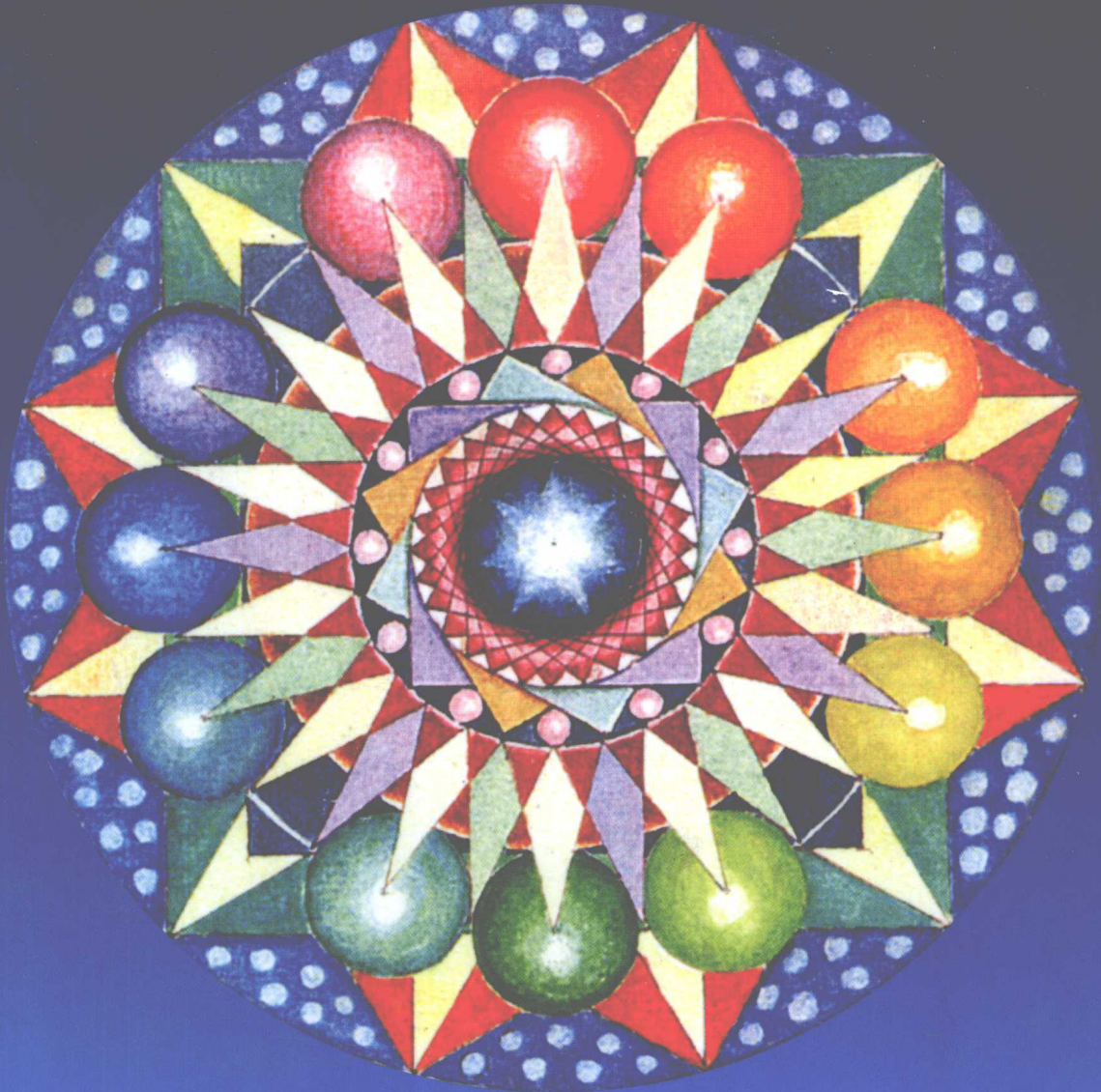
John Michell

HOW THE WORLD IS MADE

THE STORY OF CREATION ACCORDING TO

SACRED GEOMETRY

with Allan Brown



James & Hudson



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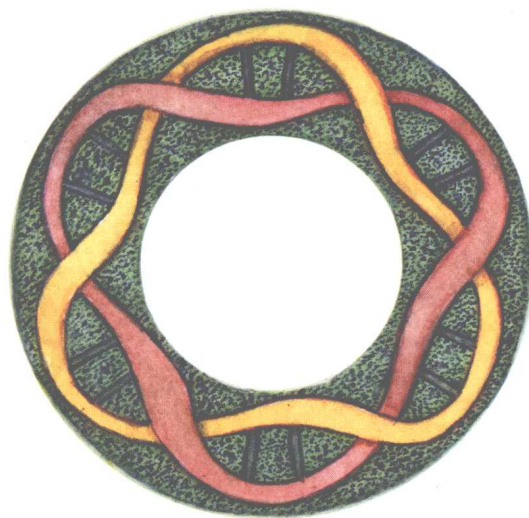
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Thames & Hudson

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Publisher's Preface

You have in your hands the final chapter in John Michell's written life. It is not entirely surprising—given his passionate interest in sacred proportion—that John would leave this world just as his final work was entering it. This inverse relationship is only deepened by the ideas put forth in the book—that everything is woven together in an all-inclusive world image—that “pattern in the heavens,” as Socrates called it, “which anyone can find and establish within themselves.”

John understood that in order to live happily—and anyone who knew him can attest that he did—people must incorporate sacred proportion into their lives. A champion of traditional units of measure, such as feet and pounds, which are based on celestial proportions, he knew that when we use these cosmic systems we help create harmony in society and the world as a whole.

John's rejection of the church of progress and its systems was not simply because “old is always better” but because he saw that the current alienation of modern humanity, the source of so much unhappiness, is aided and abetted by our abandonment of proportion. He knew that our loss of connection with the sacred had resulted in our inability to construct meaningful lives. As he said in *Confessions of a Radical Traditionalist*: “You do not have to be a New Ager to conclude that the only world order in which human nature can happily exist is the sacred order, the cosmological expression of ideal harmony and proportion which constituted the esoteric base behind every ancient lasting civilization.”

Known for the twinkle in his eye, John was a living example that being attuned to the sacredness of the cosmos brings a happiness to your world not found elsewhere. Through his many works, both written and drawn, and his

Publisher's Preface

love of conversation, he shared this wisdom in vivid detail. The fascinating beauty of his drawings—stunningly showcased in this volume—attests to the profound power and importance of sacred proportion that he wished to convey.

Thank you, John, for sharing your harmonious world. May your pattern in the heavens be found within each of us.

The Hand and the Computer

A Note on the Illustrations

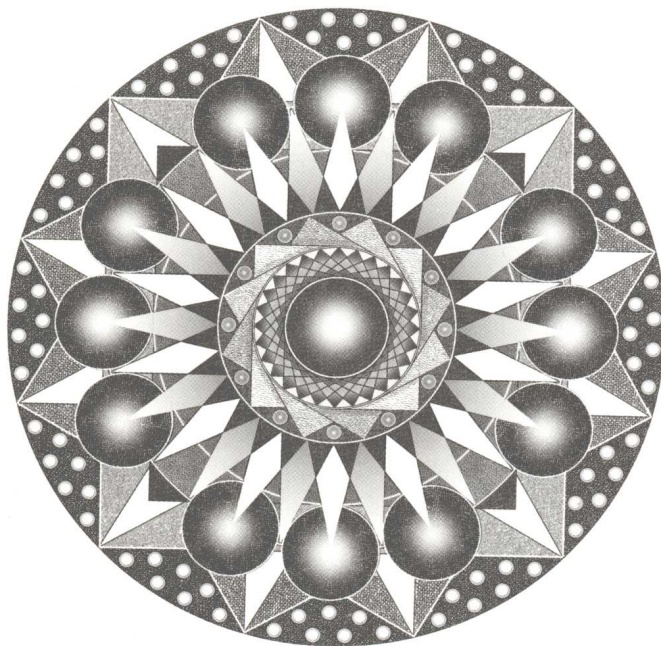
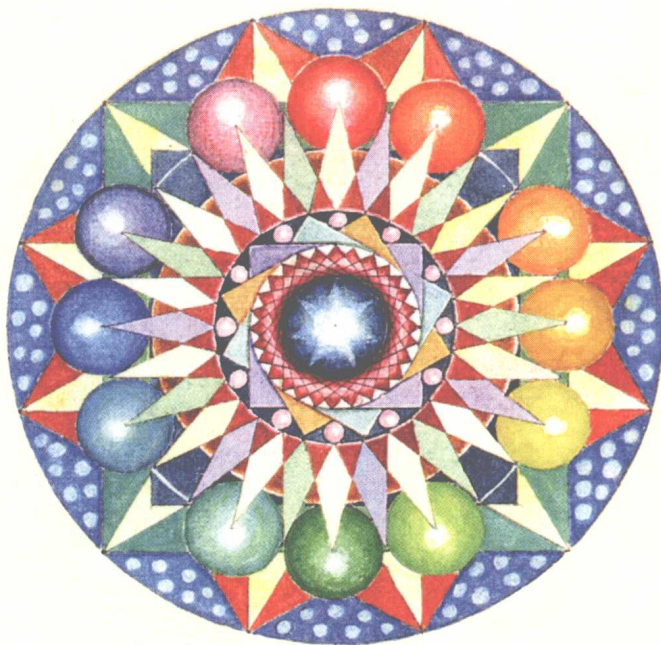
The watercolours and some of the coloured diagrams in this book were done over a stretch of years beginning in the 1960s. In 2003 many of them were exhibited in London at Christopher Gibbs's gallery in Pimlico. Others were added later and the process continues. Despite their embellishment and occasional whimsicalities, these drawings are not regarded as 'art' (a term somewhat degraded at present). Nor are they meant simply as decorations. Their purpose is to illustrate, as simply and attractively as possible, the basic types and characters in the world of geometry, their marriages and reproductions, and how the different types fit together within a comprehensive scheme of geometry that symbolizes the structure of the universe.

The drawings and paintings were mostly done before computers got the upper hand and mechanized draughtsmanship. This development has been much lamented—for example, in a new book, which happened to arrive just as this was being written, *Drawing Geometry* by the architect and geometer Jon Allen. Here is what he says.

There is great value in drawing by hand, and good reason to resist the temptation to resort to a computer. We lose something when we use computers to draw geometry. However beguiling their mechanical precision, they lack "heart": in some subtle way we become observers rather than participants. . . . To surrender the experience of drawing by hand for the convenience of digital storage, revision, and transmission seems a great shame—and essentially misses the point, that drawing geometry is as powerful a meditation, or as inspiring a creative activity, as it is possible to find.

That is well said, but it is not the last word on the subject. Geometrical drawing, especially with colour, and above all in the spirit of research, is a delightful and satisfying occupation. It is like learning an instrument and playing music. Yet even before the computer took over, geometers had the use of mechanical aids, such as photocopying for the repetition of patterns. Many of the cursive designs here were augmented in this way. Since computers can override cutting and pasting by hand and achieve the required result more efficiently, it is reasonable to take advantage of this convenience. In the hands of an artist the computer is an artistic medium. That is shown here by Allan Brown, who designed this book, brought it to order, and composed many of its diagrams. With their clarity and precision and the sensitivity in their lines and tones, they are ideal in this context—and, with all respect to Jon Allen, they are certainly not lacking in ‘heart’.

To illustrate the point, here is Allan Brown’s computer-drawn version of the Heavenly City or New Jerusalem diagram (opposite, below), the central image of traditional cosmology. There are several views of it in this book, showing its various aspects and meanings. In this figure it is perfectly delineated while retaining its beauty and spirit.



Creation is not finished—the world occurs anew every moment.

HANS-PETER DURR, PROFESSOR OF QUANTUM PHYSICS
AT THE MAX PLANCK INSTITUTE

The grand book of the universe . . . was written in the language of mathematics, and its characters are triangles, circles, and other geometrical figures, without which it is impossible to understand a single word of it.

GALILEO GALILEI, 1623

Fig. 1 (opposite). The Heavenly City is a geometer's name for the traditional diagram that represents the order of the universe and the numerical code that underlies it. An illuminated version of it is shown opposite. There are many allusions to this diagram in ancient relics and writings, but it was not until 1971 that it came into the open to provide the key to the long-lost science and philosophy that has, at various times and places, created the conditions for a golden age.

The Heavenly City (depicted here in one of its many forms as a tree bearing "twelve manner of fruits") contains the numbers, measures, shapes, proportions, and musical harmonies that are constant in nature. It presents a universe which reconciles all the opposite and disparate elements that comprise it. It is an image of paradise, of the immanent perfection that can be found in every order of existence, from the cosmos to the individual. This perfection is by no means obvious, but many people in all ages have glimpsed it, with the effect of changing their lives. In the Heavenly City diagram visionary experience is combined with numerical and scientific reason to produce an active symbol of divine wisdom restored to earth.

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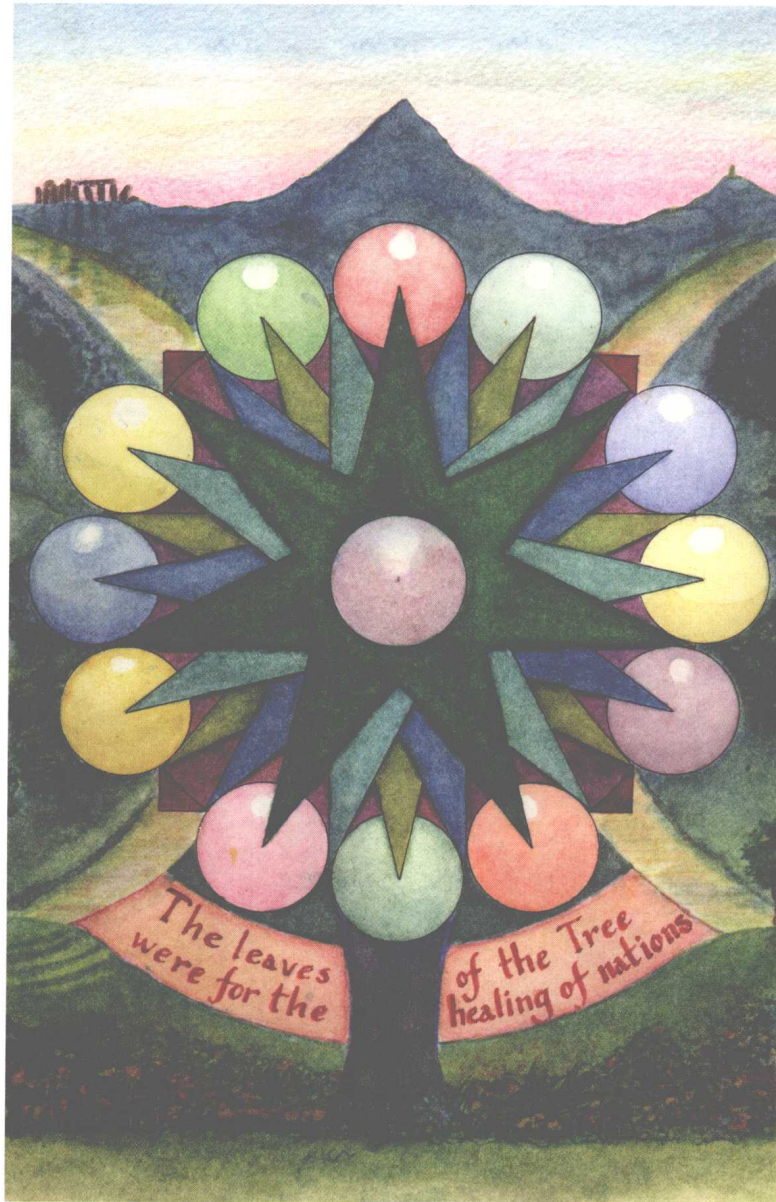
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Part I

THE GEOMETER'S CREATION



I • How the World Began

And Why, and Why Worry?

How did the world begin? There is no certain answer to that or to any other of the big questions on the origins of life, consciousness, culture, and language. The very nature of our existence is a mystery. In the centre of human knowledge is a large gap which, for the sake of decency, we cover over with a veil of myths, faiths, and theories. Ignorance should not be seen naked, but the problem is, how should we cloak it?

This sounds like a problem for fashion experts, and in a way it is. There are fashions in cosmology, as in philosophy, religion, archaeology, anthropology, and every other field. Myths come and go, and so do scientific theories. It may not seem to matter very much which particular formula or fairy story is used to explain the universe, but in reality it is crucial, because the way we understand the world and our own origins largely determines our attitude towards life and how we experience it.

One thing we do know, not just from the ancient philosophers but from common observation, is that the world is reflexive and responds to however we choose or are taught to imagine it. There are two extremes to how our existence can be visualized. At one extreme this world is a reflection of the heavenly paradise, at the other it is hell on earth. You can choose whichever model you like, and the consequences will follow.

A simple illustration of the reflexive universe is the everyday phenomenon of coincidences. A word newly learnt is immediately heard again, a friend who has just been mentioned unexpectedly calls. There seems to be no meaning in these odd incidents, and we normally laugh them off. Speak of the devil, we say, or, it's a small world. But there are certain coincidences which we can hardly help seeing as significant. Sometimes they are so appropriate that they seem to be

answers to prayer, need, or intense desire. It is as if we had actually willed them to happen. Almost every writer is familiar with the 'library angel' that causes you to pick up the one book or item in the whole of literature that you need at the time. Some of the recorded instances of this effect seem literally miraculous. Then there is the opposite effect, also well known to writers but less likely to be mentioned, of a needed book that vanishes from its usual place, cannot be found anywhere, but later reappears, just where it always should have been.

There are times when luck seems to be with you, when fortune smiles and everything seems to keep going right, and there are other times when it is just one problem after another. This brings up the interesting question, can one attract good luck and happiness—and, if so, how? Happiness, of course, is a state of mind, and the mind can only be happy when you feel at ease in your surroundings, not troubled by doubts, fears, and uncertainties. In normal, peaceful conditions, causes of unhappiness are mostly minor and localized. But there is a larger, more lasting cause which can overshadow the whole of life, depriving the mind of its natural state of contentment. A common and deep-rooted source of worry is doubt and fear about the nature of the universe, its creator (if any), what it is supposed to mean, and how we are supposed to relate to it. To deal with these anxieties, preparing the mind for receiving light, luck, and happiness, is the real purpose of cosmology.

Cosmology naturally has to do with the cosmos, the philosopher's term for the entire, self-contained universe, including ourselves and our own observations of it. Modern, scientific cosmology is artificially limited. It tries to exclude the human viewpoint, has no concern for human psychology, and fails to acknowledge the powerful influence that cosmography—the way the universe is described—exerts upon the minds of people exposed to it. Not just individuals but whole societies, nations, and cultures are conditioned by the prevailing view of the world. There is no such thing as an objective, value-free cosmology. Every type of world image has its corresponding effect on minds, perceptions, moral values, forms of government, and every other human system. However hard they may try, cosmologists cannot avoid being influential far beyond their

Fig. 2. The scientific creation myth in a nutshell, by cartoonist Merrily Harpur



own specialized field. Modern society and the modern mind are both to a considerable extent products of modern cosmology.

An example of the cross-influence between a cosmological image and human affairs generally is the expanding-universe theory. Briefly outlined, it states that the universe began suddenly, explosively, by some unique accident, with a big bang whose debris is still receding outwards into space. On this one small fragment of matter, this Earth, conditions happened to be suitable for the appearance of life, which came about through another accident, also perhaps unique, involving a highly improbable or outrageously coincidental chain of chemical reactions. Creatures arose of different orders and species, endowed with various levels of intelligence, and one species somehow acquired the art of abstract thinking, causing it to worry about such questions as how the world began, to invent all sorts of explanatory myths, and then to fight over them.

The big bang cosmogony (creation myth) reflects modern thinking with its belief in expansion and progress and is also used to justify it. It is a story that suits the big corporations, the monopolists, the ever larger and more elaborate institutions of politics, economics, science, and education. It goes well with the theory that corresponds to it in the world of biology, the theory of evolution, which also tells a story of chance origins from nothing, followed by growth and elaboration. Both these theories reject the notion of a creative intelligence at work. The qualities they tend to encourage are innovation and inventiveness at