ROSICRUCIAN DIGEST

THE PYTHAGOREANS

Each issue of the *Rosicrucian Digest* provides members and all interested readers with a compendium of materials regarding the ongoing flow of the Rosicrucian Timeline. The articles, historical excerpts, art, and literature included in this *Digest* span the ages, and are not only interesting in themselves, but also seek to provide a lasting reference shelf to stimulate continuing study of all of those factors which make up Rosicrucian history and thought. Therefore, we present classical background, historical development, and modern reflections on each of our subjects, using the many forms of primary sources, reflective commentaries, the arts, creative fiction, and poetry.

⤚⊹⟨⊱⊙⊰⟩⊹⤙
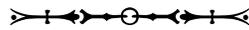
This magazine is dedicated to all the women and men throughout the ages who have contributed to and perpetuated the wisdom of the Rosicrucian, Western esoteric, tradition.

⤚⊹⟨⊱⊙⊰⟩⊹⤙
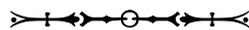
May we ever be worthy of the light with which we have been entrusted.

⤚⊹⟨⊱⊙⊰⟩⊹⤙
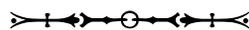
In this issue, we explore the figure of Pythagoras and his Mystery School whose roots are in ancient Egypt and the East, and whose teachings have profoundly influenced music, art and architecture, mathematics, science, and mysticism throughout the centuries, and still move us with their resonance today.

ROSICRUCIAN DIGEST

Official Magazine of the Worldwide Rosicrucian Order

οἱ Πυθαγόρειοι

Paths of the Ancient Sages: A Pythagorean History

Peter Kingsley, Ph.D.

*I*n the present article, we follow the trail of Pythagorean wisdom as it wends its way from the Greek islands through the Mediterranean to the world of Sufis and alchemists. Peter Kingsley is an honorary professor both at the University of New Mexico and at Simon Fraser University in Canada. Dr. Kingsley believes his work is to bring back to life, and make accessible again, the extraordinary mystical tradition that lies forgotten right at the roots of the Western world. He has worked together with many of the most prominent figures in the fields of classics and anthropology, philosophy and religious studies, ancient civilizations and the history of both healing and science. He is the author of In the Dark Places of Wisdom; Reality; and Ancient Philosophy, Mystery, and Magic. For further information about Dr. Kingsley and his work, visit www.peterkingsley.org.

The year: 1191. At Aleppo in Syria a man called Shihab al-Din Yahya al-Suhrawardi was executed on direct instructions from the great Islamic ruler, Saladin. He was thirty-eight years old.

His death and short life might seem to have nothing to do with Pythagoras, or the Pythagoreans of ancient Greece. But that's not the case.

Suhrawardi has been known in Persia since his death as "The Sheikh of the East," or simply as "He who was killed." While still alive he taught and wrote about how he had discovered a continuous line of esoteric tradition: a tradition that started in the East, passed to the early Greek philosophers, then was carried from Greece to Egypt where it traveled a long way up the Nile and eventually was transmitted from southern Egypt back to Persia.

For him this tradition wasn't just a matter of history. He presented himself as its living representative in his own time. And he explained that he was the person responsible for bringing it to its fulfillment by returning it, full circle, to its roots in the East.

The few people in the West who study Suhrawardi nowadays like to believe his vision of the past is strictly symbolic; that his interpretations of history aren't to be taken literally, or seriously. And yet Suhrawardi was very serious about what he said. So were his successors—people who down to the present day claim they have perpetuated intact an esoteric tradition based not on theorizing or reasoning about reality, but on direct
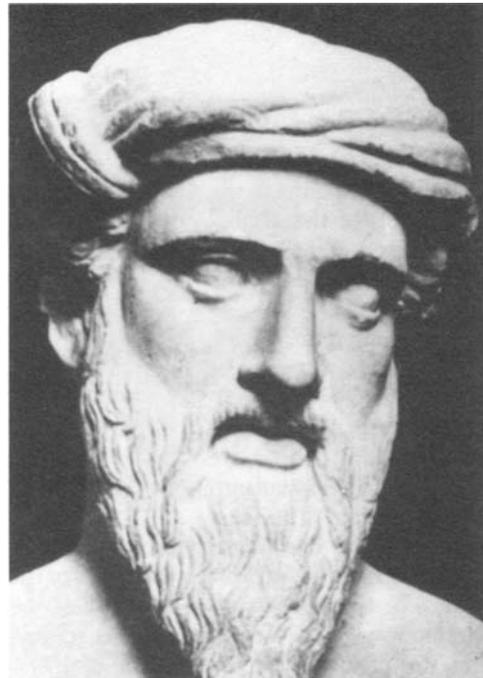
Bust of Pythagoras. Roman Copy of a Greek Original. Rome, Capitoline Museum.

experience gained through spiritual struggle and specific techniques of realization.

For them this tradition was alive, incredibly powerful. Suhrawardi described it as an eternal "leaven," capable of transforming whatever it touches, of raising people who are ready into another level of being. And just as yeast acts subtly but irresistibly— transforming from the inside, unrestrainable,

Western philosophy is presented nowadays as strictly a Greek phenomenon, explainable in Greek terms alone. Claims made by ancient sources that the earliest philosophers traveled to distant places in search of wisdom are dismissed as romantic fantasies, dreamed up by Greek writers long after the time of the people they were writing about.

Historians like to speak about what they call the "Oriental mirage"— the exotic illusion conjured up by Greeks that their culture owed a great deal to the East. But the real mirage is the "Greek mirage," the illusion that the Greeks grew up in a self-enclosed world of their own.

---

precisely because it's so subtle—the theologians in his time saw that the only way to try and stop his teaching would be to kill him. But they killed nothing.

And Suhrawardi, like his successors among Persian Sufis, was quite precise about his ancestors. He mentions two early Greek philosophers in particular: Pythagoras, and a man from Sicily called Empedocles. He also states, as we'll see, the name of the town in southern Egypt where the tradition eventually arrived. And he gives the name of the man responsible for carrying it out of Egypt in the ninth century—nearly one and-a-half thousand years after Pythagoras and Empedocles.

As we'll also see, he knew what he was saying. But let's start at the beginning.

One Vast, Interrelated Whole

Those who specialize in the history of classical Greece naturally tend to dislike any talk about contacts with the ancient East. It can be disconcerting to find that the area one has given one's life to studying is nothing but a tiny square on a far vaster chess board, that the details one has been analyzing are just the marks left behind by chess pieces being moved from somewhere one doesn't know about to somewhere one doesn't understand.

The trouble is that, in the case of Pythagoras, the reports about him traveling far and wide go back more or less to the time when Pythagoras was alive. Historians like to speak about what they call the "Oriental mirage"—the exotic illusion conjured up by Greeks that their culture owed a great deal to the East. But the real mirage is the "Greek mirage," the illusion that the Greeks grew up in a self-enclosed world of their own.

The reality is this: the ancient world was one vast, interrelated whole. Everything was intimately and subtly interconnected. You only have to look at what happened in Pythagoras's own lifetime and you find Babylonian astrological traditions being introduced into Egypt by Persian Magi. Further to the east, the same traditions were being carried by Magi to India.

Everywhere nowadays it's written or said that Alexander the Great was responsible for opening up the East, centuries after Pythagoras. But that's just a myth. The routes that Alexander's army followed had been used by Persian traders and teachers long before Alexander was even born.

Then there's the case of Pythagoras himself. His home was an island called Samos, just off the mainland from what's now the Mediterranean coast of Turkey. It so happens
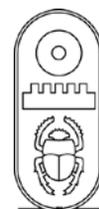
that the people of Samos were among the specialists of specialists in long-distance trade. They had a reputation that was almost mythical in its dimensions for traveling and trading. The great temple of Hera on Samos became a storehouse for objects imported from Syria and Babylonia, from the Caucasus, Central Asia, and India.

Of all the places that people from Samos did trade with, there's one in particular that they had close ties with. This was Egypt. They built their own depots and places of worship along the Nile, together with other Greeks. For them Egypt wasn't just some foreign or exotic land; it belonged to the world they knew and lived and worked in.

And that's only part of the story. According to an old tradition, Pythagoras's father was a gem engraver. What Pythagoras's father did, Pythagoras himself would have learned as a matter of course. But for a Greek gem engraver of the time, in the middle of the sixth century BCE, life would have meant learning skills introduced from Phoenicia and bringing in materials from the East. We happen to know about other famous gem engravers on Samos at the time when Pythagoras was alive. They trained in Egypt; worked for kings of Anatolia; produced some of the finest works of art right in the heart of

ancient Persia, for Samos was an island that, from century to century, had the closest of ties with Persia.

The realities of history are full of ironies and paradoxes at every turn. With Pythagoras the paradoxes start multiplying from the moment he decided, in around 530 BCE, to leave Samos and settle in Italy.

The island where he had grown up had contacts with Egypt; and one would suppose that in leaving Samos for the West he was leaving those contacts behind. But he didn't leave anything behind. Italy was saturated with influences from Egypt. The most extraordinary finds have been made, there and in Sicily, like Egyptian magical objects dating from the seventh century BCE that show the goddess Isis suckling her son Horus. Their similarities to the imagery of Persephone suckling her son Dionysus—imagery that depicts the crucial moment in Orphic mysteries of initiation when the initiate dies to be reborn as Persephone's child—are far too close to be a coincidence.

Orphic tradition blossomed in Italy. Early Pythagorean tradition absorbed its language and techniques, made them its own. And in origin they're plainly Egyptian.

This is particularly clear in the case of the famous Orphic gold plates that

Pythagorean School in Egypt

originally were buried together with initiates in southern Italian tombs. They're pieces of folded gold foil, inscribed with directions for finding one's way in the world of the dead and with promises for obtaining immortality. They describe the guardians

> Traditions have their ebbs and flows, just as cultures do. People go, whether they understand why or not, exactly where they're needed.

in the underworld that challenge the soul, prevent it from finding the refreshment it needs. And they remind the soul how to state its real identity by claiming it belongs with the gods.

Empedocles

Here we come to the other man mentioned by Suhrawardi alongside Pythagoras: the great philosopher Empedocles, who lived in the fifth century BCE and played the major role of transmitting Pythagoras's teachings in Sicily. He used the language of the gold plates in the poetry he wrote, and through what he says, he shows that the process of dying to be reborn doesn't just refer to dying physically. Initiates had to die before they died—face the underworld before their physical death.

The similarities in detail between the magical sayings on the gold plates and Egyptian texts in the Book of the Dead are obvious. But what hasn't been realized is that this isn't just a case of parallels between texts from Italy and texts from Egypt; the missing links have also been discovered.

They're strange discoveries, like stepping stones carefully marking out a curve of influence that stretches from Egypt across to Italy. Strips of gold foil have been found in tombs at Carthage, on the coast of what is now Tunisia; and on the island of Sardinia.

They were placed there during the seventh, sixth, and fifth centuries BCE. The strips were made by Phoenicians—but they're engraved with Egyptian images. And they were rolled up, like amulets, inside tubes often sculpted with pictures of Egyptian gods.

Phoenician Influence

You won't find much mention of these strips of gold foil in Phoenician tombs. Most modern historians have little respect for Phoenicians, and disregard them as inferior to the Greeks. Evidence that Pythagoreans in Italy included Phoenicians among their number, or were taught by Phoenicians, is neglected. And no significance is seen in how one particular man—the man who most blatantly gives the lie to the modern fantasy that ancient Pythagoreans were impractical dreamers—is said to have learned mechanics and engineering from a Phoenician in Carthage.

The man's name was Archytas. He was Plato's greatest friend among the Pythagoreans; and he, along with his disciples, transmitted to Plato the wisdom preserved in the famous Platonic myths. But already in Plato's own circle the tendency to glorify the Greeks, especially the Athenians, at everyone else's expense quickly covered over the facts. It was Plato's secretary who wrote down the famous statement that "Whatever Greeks receive from barbarians they improve on, carry to perfection."

And it was precisely the people who were in a position to know best who went so far in creating our Western sense of superiority that now we find ourselves proudly clutching at straws.

Traditions have their ebbs and flows, just as cultures do. People go, whether they understand why or not, exactly where they're needed.

Egyptian ideas had for a long time been carried to Italy, but eventually the opposite movement started—from Italy back to Egypt.
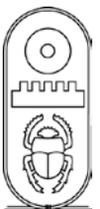
It began in a big way when Alexander the Great had the city called Alexandria built at the mouth of the Nile during the late fourth century BCE. People in southern Italy and Sicily gave themselves all kinds of reasons for doing what they had to do: emigrating to Egypt.

Pythagoreanism itself had always been a flexible tradition. Its personal demands on anyone who wanted to become a Pythagorean were immense. But, paradoxically, to be a Pythagorean meant belonging to a system that encouraged initiative and creativity: that kept changing, consciously adapting to the needs of different people and places and times.

So when Pythagoreans started arriving in Egypt they didn't simply set up shop as Pythagoreans. They also started merging their teachings with a tradition that was eminently Egyptian. This was the tradition that belonged to the god Thoth—or, as he came to be called by Greeks in Egypt, *Hermes Trismegistus.*

D. Stolcius von Stolcenbeerg, *Hermes Trismegistus* from the *Viridarium Chymicum.* 1642

Hermetic Texts

The Hermetic texts, or "Hermetica," that began being produced in Greek were initiatory writings. They served a very particular and practical purpose inside the circles of Hermetic mystics. And many of the methods they describe, as well as a great deal of the terminology they use, are specifically Pythagorean in origin.

But the Hermetica are far more than adaptations of Pythagorean themes. They are also the most obvious manifestation of Pythagoreanism returning to Egypt. Until not long ago, the occasional references to Egyptian gods and religion in the Hermetic writings were dismissed as superficial veneer—as touches of local color added to the Greek texts to give them the illusion that they contained the authentic wisdom of Egypt.

But the Hermetic literature is Egyptian to its core. Even the name *Poimandres* or *Pymander,* the title often given to the Hermetica as a whole, is Egyptian through and through. It's simply a Greek version of *P-eime me-re*, "the intelligence of Re." And the god who was known in Egypt as the "intelligence" of the sun god, Re, was Thoth—the Egyptian Hermes.

Already in the early 1990s it was possible to start mapping out the details of how much the Hermetica owed to Egypt. The resulting picture was startling enough. But then something extraordinary happened.

In 1995 two historians quietly announced the existence of a *Book of Thoth,* written in Demotic Egyptian. Just like the Greek Hermetica, it's a dialogue between a teacher and disciple. The teacher is Thoth "the three times great"—the exact equivalent of Hermes Trismegistus. He talks, like in the Greek Hermetica, about the process of rebirth—about the need to become young when you're old, old instead of young.

The Book of Thoth is purely Egyptian, with not a trace or sign of any foreign influence.

But its general correspondences with the Greek Hermetic texts, and its parallels with them down to the most specific expressions and details, prove without any doubt that here we have a lost Egyptian prototype of the Hermetica only known to us before through their Greek translations and adaptations.

These were the Egyptian traditions that Pythagoreanism started merging with to become those Greek Hermetica. And you could say that in doing so, it was at last coming home.

The Greek Hermetic writings weren't the end of Pythagoreanism's return to Egypt, but just the beginning.

Already in the second century BCE, Greek-speaking Egyptians who lived on the Nile Delta had started receiving Pythagorean traditions on one hand and, on the other, shaping what was to become known as the art of alchemy. Northern Egypt was simply the starting point for a whole process of transmission from West back to East.

Over the centuries a combination of Pythagoreanism and alchemy was carried hundreds of miles along the Nile, down towards the Ethiopian frontier. And it was carried to one town in particular. The Greeks called it *Panopolis*; later it would become known as *Akhmim*. It has been said that outwardly this town in the middle of the desert "has no history." That is quite correct. Its history and significance belonged in another dimension.

Zosimus of Panopolis

The most famous of Greek alchemists, Zosimus, lived in the third century CE. He came from Panopolis. Already in his time there were small groups of alchemists either living in the town or staying in contact with the alchemists who lived there. These groups weren't just concerned with transforming physical objects. They were also preserving and perfecting techniques for the transformation of themselves.

It was here, when the real meaning of early Greek philosophy had already become lost in the West, that the alchemists kept those philosophers' teachings alive—especially the teachings of Pythagoras and the Pythagoreans. And they would go on preserving the significance of their teachings intact, from generation to generation, for hundreds of years.

It's still possible to trace how the teachings of Empedocles in particular were transmitted from Sicily down to Egypt and into the Hermetica, into Egyptian magical traditions, and in alchemical circles all the way down to Akhmim. In 1998 the remains of a papyrus, discovered at Akhmim, which had contained huge amounts of Empedocles' poetry were published for the first time. This was much more than a chance discovery.

During the ninth century CE, seven hundred years after Empedocles' teachings had been copied onto this papyrus, an alchemist in Akhmim wrote a work that was to have the profoundest influence on virtually every aspect of medieval alchemy. His name was Uthman Ibn Suwaid, and he wrote the work in Arabic.

It became known in the Islamic world as *The Book of the Gathering*; translated into Latin it came to be called the *Turba philosophorum,* or *Gathering of the Philosophers.* The book described a series of meetings between ancient Greek philosophers at four "Pythagorean conferences," all of them dedicated to getting to the heart of the alchemical art. The meetings were presided over by Pythagoras himself. And in the text one of the speakers at the gathering, Empedocles, outlines genuine aspects of the historical Empedocles' teaching—about the fundamental importance of fire at the center of the earth—which until recently were either forgotten or completely distorted in the West.

The significance of these details is immense. What Empedocles wrote and
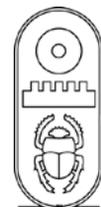
Ibn Tulun Mosque in Cairo, 9th century CE. Photo from the Rosicrucian Archives.

taught during the fifth century BCE played a crucial role in shaping Western philosophy, Western science, and the history of Western ideas. But the simple fact is that a true understanding of what Empedocles had taught didn't survive in the West. All that was left there of his teaching—about the mysteries of the world around us, about the nature of the soul—was empty theorizing and hollow ideas. The lived reality had moved elsewhere.

It's strange, now, to look at the surviving evidence in Arabic texts about the existence of groups of alchemists who called themselves "Empedocles circles," or "Pythagoras circles." You find "Empedocles circles" mentioned again in descriptions of Islamic esoteric groups who saw Empedocles as their guide—who "regard themselves as followers of his wisdom and hold him superior to all other authorities." Here were people who, in spite of their culture, religion, language, took as their inspiration and teacher a man who had lived one and a half thousand years before them.

The Sufi, Dhu 'l-Nun

Suhrawardi, "Sheikh of the East," says who it was who passed the essence of Pythagoras's and Empedocles' teachings to the Sufis: someone called Dhu 'l-Nun.

Dhu 'l-Nun came from Akhmim. He was fiercely attacked by Islamic theologians; put on trial. He narrowly escaped with his life. And this man, who aroused so much opposition through what he taught, became known as "the head of the Sufis" for the simple reason that practically every line of Sufis in existence looks back in one way or another to him.

He soon came to be considered the crucial figure in "a line of secret gnostic teaching" that he transmitted to the great Sufi, Sahl al-Tustari, and then—through Sahl—to Sahl's disciple al-Hallaj and into the early Sufi orders. But Dhu 'l-Nun was also famous for his involvement with alchemy, and for deriving his wisdom from the alchemical traditions preserved at Akhmim.

This connection between alchemy and the beginnings of Sufism has often been put aside as something of an embarrassment. And yet, as a few historians have realized, the evidence for the connection goes back too far into the past to be discounted so easily.

But even that isn't all, because there's one other piece of evidence that's strangely been missed.

This is the fact that the earliest witness to Dhu 'l-Nun's involvement with alchemy lived

hardly any later than Dhu 'l-Nun himself. He was Ibn Suwaid, the alchemist from Akhmim who wrote the Pythagorean *Book of the Gathering*—and who, alongside the other alchemical books he produced, wrote one specifically refuting the accusations leveled against Dhu 'l-Nun.

Apart from his connections with alchemy and Pythagoras, with Empedocles and Dhu 'l-Nun, Ibn Suwaid was linked with the beginnings of Sufism in more ways than one. He also wrote a work called *Book of the Red Sulphur*. That's highly significant. Red sulphur played a crucial role for alchemists because it represented the light in the depths of the underworld, the sun at midnight, the fire at the center of the earth. But it's significant, too, because *Book of the Red Sulphur* was soon to become a standard book title among Sufis themselves. For them, red sulphur was the name used to describe the essence of the esoteric "inheritance" that was the ultimate goal of being a Sufi.

The tendency nowadays is to assume that when Sufis took over this alchemical language they changed its meaning by spiritualizing it, giving it a higher significance which it hadn't had before. But that's as accurate as the belief that Carl Jung in the twentieth century was the first person who ever gave alchemy an inner or symbolic meaning, who explained it as relating to human transformation.

The simple fact is that the oldest alchemical texts in the West which survive in anything like their full and original state talk explicitly about alchemy as the art of inner transformation—as the process of bringing the divine into human existence and taking the human back to the divine.

These texts have never been properly translated into English. They were written down in Greek during the third century by Zosimus, the famous alchemist from the town of Panopolis or Akhmim.

It's no surprise that Suhrawardi was killed.

His writings show he was a deep Muslim, profoundly inspired by the Quran. But the basic thrust of his teaching pointed in another direction. It was mainly through him that Empedocles and Pythagoras came to be seen, especially by certain Sufis in Persia, as among the greatest Sheikhs who had ever lived.

> The oldest alchemical texts in the West which survive in anything like their full and original state talk explicitly about alchemy as the art of inner transformation.

Of course, this way of viewing ancient philosophers has no place at all in the standard pictures of Sufism—any more than the idea of Empedocles or Pythagoras as teachers, responsible for transmitting an esoteric tradition based on spiritual practice and realization, has any place in the standard pictures of ancient philosophy.

But that was bound to happen. For a long time in the West we've managed to forget the original meaning of the word *philosophy*, which is love of wisdom, not the love of endlessly talking and arguing about the love of wisdom. And what's even sadder is the way we've managed to persuade ourselves that we haven't forgotten anything.

As one of Suhrawardi's successors—his name was Shahrazuri—stated very simply: the realities that Suhrawardi wrote about and died for are so fundamental they aren't easy to understand. In the West it was a long time ago that "the traces of the paths of the ancient sages disappeared"; "that their teachings were either wiped out or corrupted and distorted."

But, as Suhrawardi and his followers knew, these realities are never lost for good.
© 1999 by Peter Kingsley.
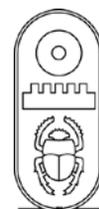
Pythagoras the Teacher: From Samos to Metapontum

Giulia Minicuci,
adapted by Mary Jones, S.R.C.

The philosophers of ancient Greece were the first documented enquirers in classical Europe into the workings of the world and how things worked. They were skeptical about religious explanations for natural phenomena and sought explanations through personal experience and deep reflection. Of course, after some 2500 years, it can be difficult to understand the terminology they used in its original meaning. For that, one needs to place oneself in the minds of those distant philosophers and also understand the times in which they lived. This fascinating, though academic, approach is beyond the scope of this article about Pythagoras, who was one of the most renowned philosophers of the ancient world. More famous nowadays for his mathematical theorem, this article gives readers an insight into a philosophy that shaped the world as we know it today. Pythagoras was one of the shining lights of ancient Greek thought, whose teachings became the foundation of modern philosophical thought and who has influenced Rosicrucian teachings to this day.

In the Aegean Sea, a short distance from the Ionian coast of Asia Minor, what is today Anatolia or Asiatic Turkey, there is a remarkably fertile island called Samos. In classical antiquity the island was a center of Ionian culture and luxury, renowned for its Samian wines and red pottery, called "Samian ware" by the Romans. At the time of the great Hellenic migrations, it received an Ionian population which traced its origin to Epidauros in the Argolis, not far from ancient Mycenae, the capital of the Mycenaean civilization and home to Agamemnon of Homer's *Iliad*. Samos became one of the twelve members of the Ionian League.

By the seventh century BCE Samos had become one of the leading commercial centers of the Greek world. The early prosperity of the Samians seems largely due to the island's position near trade routes which facilitated the importation of textiles from the interior of Asia Minor and the north-south shipping routes. It boasted a flourishing economy based on wool and metalworking. But the Samians also developed an extensive overseas commerce. They helped to open up trade with the Black Sea cities and with Pharaonic Egypt, and were credited with having been the first Greeks to reach the Straits of Gibraltar.

About 535 BCE, when the existing oligarchy was overturned by the tyrant Polykrates, Samos reached the height of its prosperity. Its navy not only protected it from invasion, but ruled supreme in Aegean waters. The city was beautified with public works, and its schools of sculptors, metalworkers, and engineers achieved high repute. It had a famous sanctuary of Hera called the *Heraion*, which today is a UNESCO World Heritage Site.

Early Life

Pythagoras was born in 580 or 572 BCE into a wealthy family. His father was Mnesarchos, a gem engraver and merchant of precious goods from Tyre, and his mother was Pythais of a high born Samian family. The story is told how Mnesarchos, on a business trip to Delphi, with his wife who was pregnant but didn't know it, consulted the Pythian oracle about his forthcoming voyage to Syria. The oracle replied that his voyage would be profitable and that his wife was already pregnant and would give birth
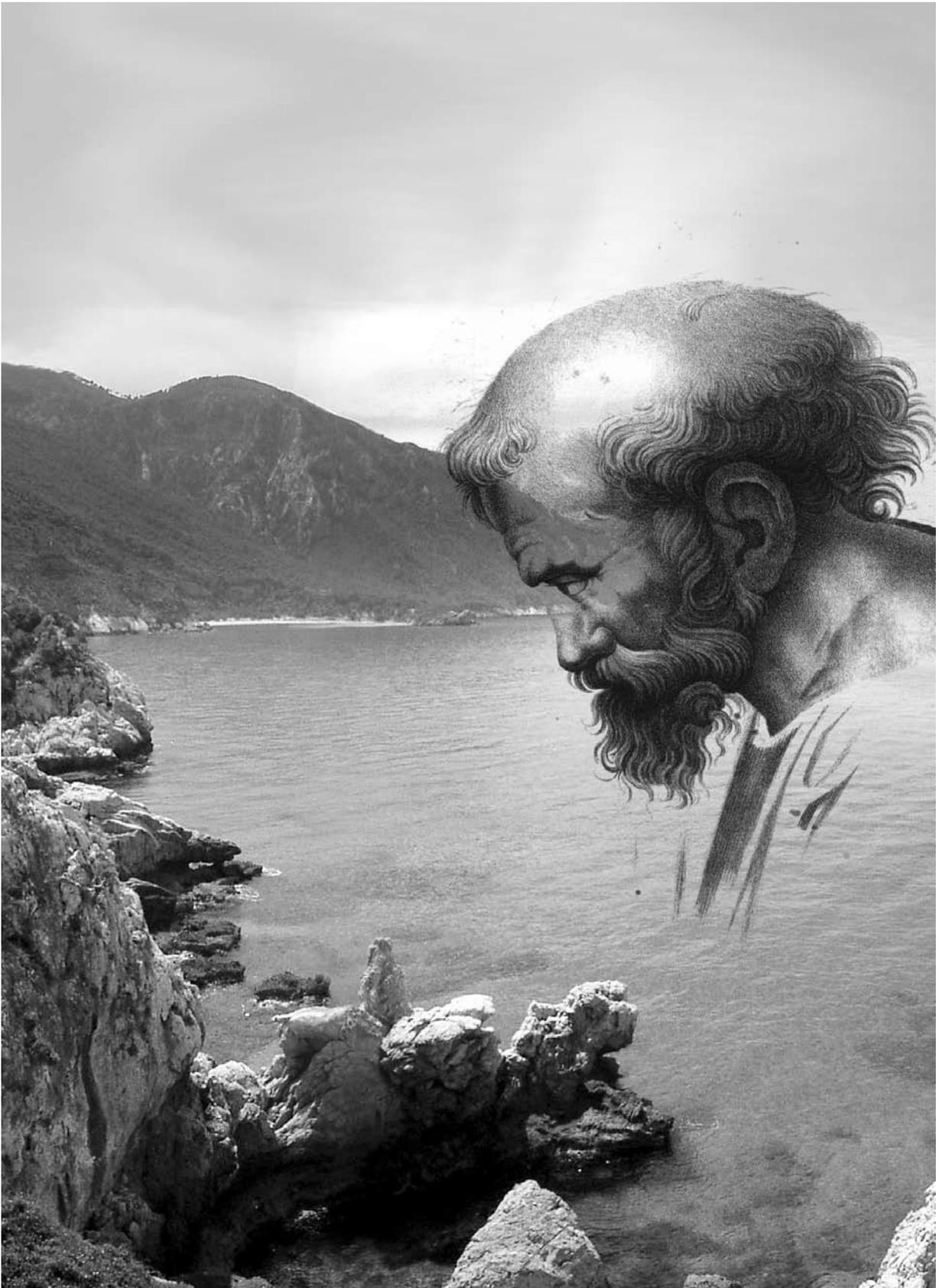
Pythagoras and the Mediterranean. From the Rosicrucian Archives.
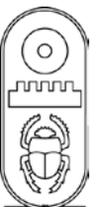
to a child who would "surpass all others in beauty and wisdom." This child would be of the greatest benefit to the human race in all aspects of life. When the child was born, they named him Pythagoras, meaning "Speaking like the Pythia."

Pythagoras came to maturity just as the earliest Greek science or natural philosophy was developing in the nearby city of Miletus, and so naturally he was influenced by Milesian cosmology. During his lifetime, education was considered to be a form of spiritual initiation and therefore, from the age of five, he was introduced to all the fields of knowledge. Coming from a wealthy family, he was sent to study under some great Masters such as: the poet and musician Hermodamas of Samos; the philosophers Anaximander of Miletus and Bias of Priene; Pherekydes of Syros, one of the Seven Sages of Greece who taught the immortality of the soul; and Thales of Miletus, that great depositary of ancient wisdom who recommended that Pythagoras travel to Egypt, the cradle of secret knowledge. At that time Egypt was ruled by Pharaoh Amasis of the Saite Period, or Twenty-sixth Dynasty, the last great ruler of Egypt before the Persian conquest. Amasis encouraged many Greeks to come to his land and be instructed in its ancient wisdom.

World Traveler

Taking Thales' advice, Pythagoras traveled to Egypt, learning ancient Egyptian

Ancient Greece and Ionia

Pythagoras's travels took him from central Asia to Egypt and back to Greece. From the Rosicrucian Archives

and spending twenty-two years as a neophyte and initiate in the great temples at Heliopolis, Memphis, and Thebes, the main centers of learning, where he was initiated into the secrets of mathematics, geometry, astronomy, and astrology. He was also initiated into the knowledge of correspondences and symbolism, as well as the rituals of those institutions, which were designed to expand the consciousness.

In Egypt Pythagoras was captured and taken to Babylon by the soldiers of Cambyses II, the King of Persia. Once in Babylon, he was mysteriously freed and this gave him the opportunity to learn the secrets of the Magi, which in turn opened the gates of Chaldean science to him. From there, he traveled to Asia Minor where the mysteries of various temples were revealed to him. It is said that he traveled to Sidon in Phoenicia, as well as Mesopotamia and even as far as India, where he learned the secret Vedic teachings and about the doctrine of reincarnation, in which he came to believe firmly. In this way he learned that there are many paths, but only one leads to the Truth. Finally, he possessed the key to knowledge.

After half a lifetime of travels to sacred sites, he then decided to return to Samos, intending to continue what he now considered as his mission. Samos however was ruled by the autocrat Polykrates (530-538 BCE), an ally of the Persians who had

brutally suppressed the people's rights. Pythagoras, not able to stomach the tyranny, and unable to find students to instruct, went to consult the Pythian oracle of Delphi. He left under the protection of Apollo, and in accordance with the response of the Pythia, about 530 BCE he landed in Crotona (Κρότων) in Magna Graecia.

Magna Graecia

Magna Graecia (or Greater Greece in Latin) was the name the Romans gave to the Greek settlements along the coast of southern Italy and Sicily because of the large numbers of Greeks living there. These cities left a lasting imprint of Greek culture that influenced the Etruscan and later the Roman civilizations.

According to Strabo, Heraclides Ponticus, Antiochus of Syracuse, the sophist Zenobius, and Diodorus Siculus, the Greek colony of Crotona was six miles from the Lakinian promontory (the current Capo Colonna). Like Samos it had a temple of Hera. It lies in the modern Italian province of Crotone in the region of Calabria. This was the ancient territory of the Iapyges, an Illyrian-speaking tribe whose language is tentatively distantly related to Albanian.

Crotona was a large city founded in 708 BCE after the Delphic Oracle instructed some Achaean colonists led by Myskellos to settle there. The story was told that the founders of Crotona and Sybaris both consulted the Oracle at Delphi at the same time and were given the choice of wealth or health; Archias the founder of Sybaris chose wealth, while Myskellos chose health.

Crotona had a small harbor, but it was only a port of call and not a center of commerce. Behind the city were the Sila Mountains, cutting it off from the interior. The slopes and foothills were extensive and fertile. The city was famous for its doctors and athletes. The school of philosophy that Pythagoras founded there played an important

role in the political affairs of southern Italy for the next two or three generations.

About the time Pythagoras arrived, Crotona was defeated by the city of Locri at the River Sagras. But its fortunes changed and in 510 BCE Crotona defeated and destroyed its rich and luxurious neighbor to the north, Sybaris. From then until about 450 BCE Crotona seems to have been the dominant city in the region, and historians credited Pythagoras and his moral training for the military revival of Crotona.

Pythagorean Community

After his arrival, Pythagoras introduced himself to the people of the city by delivering several discourses containing some basic concepts of his philosophy. His presence was that of a free man; tall and graceful in speech and gesture. He made a great impression on the Crotonians and showed himself to be not merely a moral reformer but a mystical philosopher whose insights into

Map of Magna Graecia including Crotona (Croton)
© 2006 by Carlos Satrapa/Wikimedia Commons.
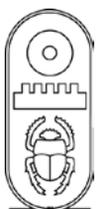
human relations could bring about a society harmonious in itself and with the gods.

With Pythagoras and his community directing affairs, Crotona became the most important power in southern Italy. It enjoyed brilliant athletic successes at the Olympic Games and boasted a flourishing medical school. At this period, the Greek cities of southern Italy were renowned as leaders of Greek thought and culture. In material culture they rivaled other Greek cities such as Athens and Corinth. This was no provincial backwater, but a fully developed part of the ancient Greek world.

Pythagoras especially stressed how the gods were to be propitiated with sacred ritual. Among other things, he emphasized that one should wear white in a temple, that one should use wood and sea water rather than animals in sacrifice, and that one should pour libations to Zeus before eating. In order to create a harmonious society the philosopher also defined what should be considered proper or ethical behavior between the sexes, and between children and their elders.

He stated that the young should respect their parents and have a love of knowledge. He believed that the Universe as a whole was a living creature, being a single, living, eternal, and divine entity. He taught that human beings were mortal, but that the soul was not; it was a fragment or spark of the divine soul, cut off and imprisoned in a mortal body. A person's aim in life, he said, was to become pure spirit, and thus rejoin the universal spirit to which he or she essentially belonged. Until the soul could purify itself completely, it must undergo a series of transmigrations, exchanging one body for another. Interestingly, these were also the views of the Cathars of southern France some 1500 years later.

His religion was a kind of pantheism. He was also the first to coin the term *Kosmos,* a word that combines the notions of order, fitness, and beauty, an ordered whole. Each one of us is a *Kosmos* in miniature. The philosopher who studies the *Kosmos* becomes *kosmios*, orderly, in his or her own soul.

The Pythagorean Tradition

The people of Crotona were inspired by Pythagoras's lofty, beautiful sentiments, and impressed by his noble bearing, helped him to build a school on the outskirts of town. Pythagoras was the first to use the term "philosopher" (lover of wisdom) and gained many followers. But his school was more than just a place of learning; it was a community, a fraternity, a way of life, and a sort of scientific research establishment. It was open to both men and women at a time when women were very much regarded as second class citizens. He also taught the doctrine of rebirth or transmigration.

One group of students, approximately six hundred in number, lived in a communal fashion in the school. This inner circle of followers or initiates was called *Mathematikoi* (Students). They lived in the community, had no possessions, and were vegetarians. A second group of two thousand, the *Akousmatikoi* (Hearers), were family members who lived in their own homes, and came to the school during the day. Both groups took lessons in the *Homakoeion*, a large common auditorium, where Pythagoras conducted his teaching while seated behind a curtain.

The Hearers were not allowed to see Pythagoras. It was thought that the sight of the master would distract too much from his words. The Students however, sat on the same side of the curtain as Pythagoras, and were initiated further into the mysteries that their master had learned from the priests of the East. The Students were not given these truths freely and had to prove to Pythagoras that they had an uprightness and beauty of character, and that they could keep secret the truths revealed to them. Thus they were obliged to take vows of silence, usually lasting five years, before they would even be considered for further entry into the mysteries. As his teachings spread, Pythagorean *Synedria,*

or meeting places, were built in most cities of Magna Graecia.

The Later Years

Pythagoras's community at Crotona was not unaffected by political events, despite his desire to stay out of politics. Pythagoras went to Delos, also sacred to Apollo, in 513 BCE to nurse his old teacher Pherekydes, who was dying. He remained there for a few months until the death of his friend and teacher, and then returned to Crotona which, in 510 BCE, attacked and defeated its neighbor, the elegant and sophisticated Sybaris—and there are suggestions that the Pythagoreans became involved in the dispute.

Then around 508 BCE the Pythagorean community at Crotona was attacked by Kylon, a noble from Crotona itself, who seems to have been the Crotoniate governor of Sybaris and who had applied to join the Pythagoreans, but had been refused admittance because of his character defects. He gathered around himself some disaffected democrats and others who resented the power and influence of the Pythagorean community.
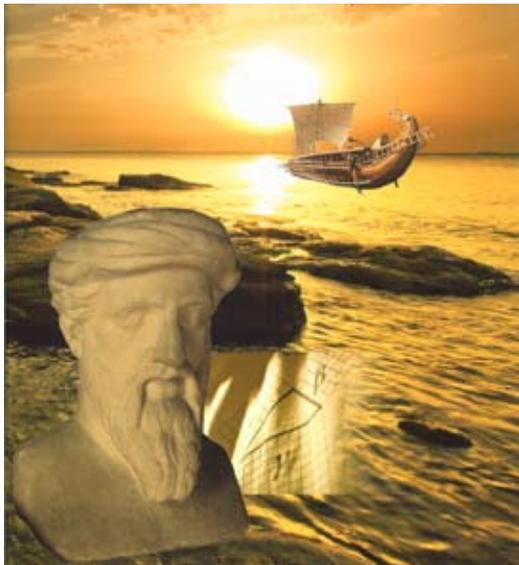
Pythagoras: A Journey into Light. From the Rosicrucian Archives

The members of the Pythagorean community were temporarily expelled and Pythagoras, along with his wife and children, escaped to the city of Metapontum, where most authors say he died, some claiming that, in sorrow, he committed suicide by starvation because of the attack on his community. Some years after his death the Pythagoreans were allowed to return to Crotona and rebuild their school.[1]

> Amongst these was one in things sublimest skilled,
>
> His mind with all the wealth of learning filled.
>
> Whatever sages did invent, he sought;
>
> And whilst his thoughts were on this work intent,
>
> All things existent, easily he viewed,
>
> Through ten or twenty ages making search.
>
> —*Empedocles*

ENDNOTE

[1]Original article published in *Rosa+Croce* No. 30 (Winter 2007), 2-6; First English edition *Rosicrucian Beacon* Vol. 17 No. 3 (June 2008), 36-40.

BIBLIOGRAPHY

Dunbabin, Thomas James. *The Western Greeks: the History of Sicily and South Italy from the Foundation of the Greek Colonies to 480 B.C.* Oxford, UK: Clarendon Press, 1948.

Guthrie, Kenneth Sylvan. *The Pythagorean Sourcebook and Library.* Grand Rapids, MI: Phanes Press, 1987.

Guthrie, W.K.C. *The Greek Philosophers from Thales to Artistotle.* New York: Philosophical Library, 1950.

Iamblichus (ca. 250-ca. 330). *On the Pythagorean Life.* Liverpool, UK: Liverpool University Press, 1989.

Kahn, Charles H. *Pythagoras and the Pythagoreans: A Brief History.* Indianapolis, IN: Hackett Publications, 2001.

Rosa+Croce, No. 30, Winter 2007. "Pythagoras" issue.

Strohmeier, John and Peter Westbrook. *Divine Harmony: The Life and Teachings of Pythagoras.* Berkeley, CA: Berkeley Hills Press, 1999.
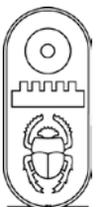
THE SCHOOL OF PYTHAGORAS

Ruth Phelps, S.R.C.
Former Rosicrucian Research Librarian

From *The Universe of Numbers**

ormer Research Librarian Ruth Phelps introduces readers to Pythagorean number theory and its mystical significance in this excerpt from her work on mathematics and mysticism.

Pythagoras wrote no works that have come down to us; hence, we know Pythagorean theory and symbolism from three sources. First, the writings of his followers, such as Nicomachus's *Introduction to Arithmetic,* give the system in a form closest to the original taught in the Pythagorean group. Second, Pythagorean ideas are found in the works of individuals such as Plato, who was greatly influenced by followers of Pythagoras, but who modified those concepts according to his own understanding. Finally, some understanding of the theories may be gained from writers like Aristotle who quote or summarize Pythagorean thought but who disagree with them.

Pythagoras was born in 572 BCE, but the biography of him by Diogenes Laertius was not written until the third century CE. Iamblichus's *Life of Pythagoras* was written about 300 CE; therefore, much of the life of Pythagoras is unknown or legendary.

The knowledge which he passed on to his followers came at least partly from the Egyptians and Babylonians, whether or not his travels to those countries were factual. He was also influenced by the Greek Orphics. Neugebauer has shown that the Babylonians, for example, knew of the right angle triangle with which the Pythagorean theorem is concerned.
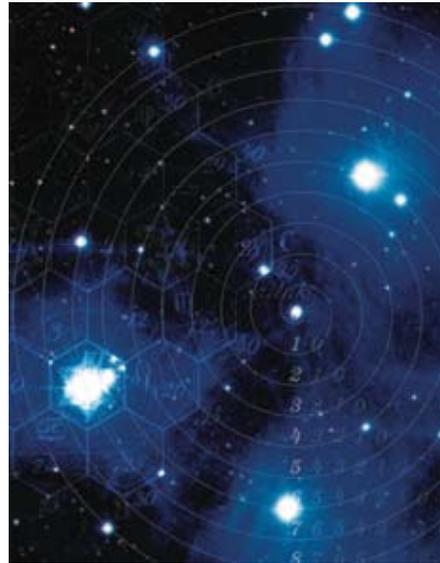
The Pleiades: A Universe of Numbers. From the Rosicrucian Archives

Number theory was fundamental to the teachings of the Pythagorean Community at Crotona. According to their ideas, number is the essence of the created universe. Number is Being. The cosmos was created and ordered according to the divine, ideal plan or pattern. Number is basic to the nature of the divine pattern and its manifestation in the actual world. Because it is the basis of creation, it is also the fundamental nature of the law of correspondences. Number, creation, cosmology, and music are all related.

The monad or unit is the first principle of all things and is the beginning of number. The divine plane or the One, and the human, worldly plane or the many are interrelated. The One becomes the many; the many are united again with the One. This is symbolized by the tetraktys, which says that $1 + 2 + 3 + 4 = 10$, and the ten returns to the unit. This

relationship between Unity and multiplicity is paralleled by the fall from the cosmic world of light into darkness, and by the ideal and the material realms. To the mystic, the cycle includes the reunion with the Cosmic, divine realm.

The monad is the beginning; from it comes the dyad or two, which corresponds to matter and to the undetermined. Numbers are derived from the dyad. In the series of numbers, each arises from its predecessor. In the series of point, line, plane figure, and sensible body also, each is derived from the preceding one. Sensible bodies are made up of the four elements—fire, air, water, and earth—which constitute the universe, which is an organism.

One is not a number, but the origin of number. Two differs from it by one unit; it is therefore regarded as other, and the term *other* is used properly only of the two. The one is then represented as the same in contrast to the two or other.

Number may be regarded as even and odd, two being the first even number, three the first odd one. Odd numbers were considered as masculine, even as feminine, or to put this in terms of polarity, the odd are positive and the even negative. The monad is both even and odd because when added to numbers it makes odd numbers even and vice versa. The monad and dyad symbolize the ordered and disordered, the definite and indefinite, or what is usually called the limited and unlimited.

The duality of limited and unlimited is the basis of a series of ten pairs or opposites:

|	
Limited	Unlimited
Odd	Even
Unity	Plurality or multiplicity
Right	Left
Male	Female
Resting	Moving
Straight	Crooked
Light	Darkness
Good	Evil or bad
Square	Oblong

These are different expressions of the two basic principles from which all things originate and which are in all things.

In Pythagorean thought, the unit or one corresponds to the point, and does not have interval or dimension. Two is related to the line; three to the triangle which has three points, sides, or angles. In this series, four corresponds to the pyramid having a triangular base, because it has four points. The point becomes a line, the line a square, and the square a cube, which gives another series in which the first solid is the cube.

There are, therefore, the following correspondences:

1. Point	Point	Point
2. Line	Line	Line
3. Plane figure	Triangle	Square
4. Sensible bodies	Pyramid with triangular base	Cube

Numbers were represented by the Greeks by letters of the alphabet or by a series of points or alphas, the first letter of the alphabet, which represents one. Thus, one point or alpha represented one, two meant two, etc. The monad is the beginning of number, while the first interval is two. The triangle is the most elementary plane figure represented by:

$$1 + 2 = 3$$
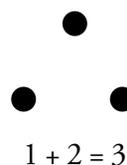
If we add a unit each time, we have a series of what the Pythagoreans called triangular numbers. The next figures are:

$$1 + 2 + 3 = 6 \qquad 1 + 2 + 3 + 4 = 10$$
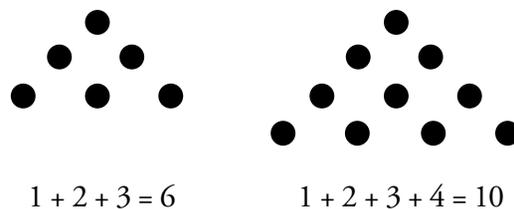
The figure on the right is the famous tetraktys. However, the series was carried
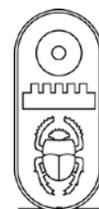
further, the next being 1 + 2 + 3 + 4 + 5 = 15. Each total number in the series was called a triangular number, 3, 6, 10, 15, etc.

There were other figures called gnomons, the simplest of which are the square and rectangular numbers and figures.

Squares are based on one, rectangles on two, thus:

1 + 3 + 5 + 7 = 16

2 + 4 + 6 + 8 = 20

The square beginning with one remains essentially the same figure, while the rectangle or oblong by the addition of each gnomon is different or other. Hence, one corresponds to sameness, two to otherness.
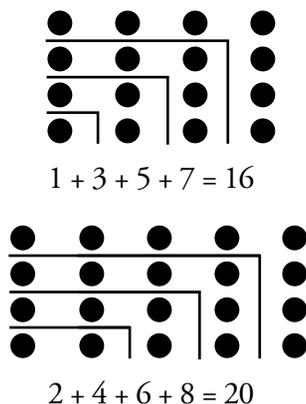
Square numbers are 1, 4 or 1 + 3, 9 or 4 + 5, 16 or 9 + 7. Rectangular numbers are 2, 6 or 4 + 2, 12 or 6 + 6, 20 or 8 + 12. This series, too, may be carried further. Other series are based on pentagons, hexagons, heptagons, and the like, and these may be found in Nicomachus and in the book of Greek mathematics listed in the bibliography at the end of this article.

There are certain relationships between such numbers. For instance, each square number is equal to the corresponding triangular number and the triangular number preceding it. For example:

4　　　=　　　1　　+　　　3
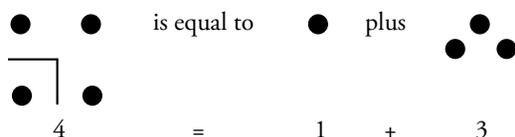
The tetraktys and decad symbolize the relationship between the One and the many, the pattern of creation, the essence of Being. In a sense ten is perfect, but three is also a perfect number because it contains the beginning, middle, and end.

More strictly speaking, perfect numbers are those which equal the sum of their parts. Half of six is 3, one-third is 2, and one-sixth is 1, and 3 + 2 + 1 = 6. The next perfect number is 28, which is made up of its half 14, fourth 7, seventh 4, fourteenth 2, and twenty-eighth 1. Numbers are greater than perfect when their parts add up to more than the number, and they are deficient when the sum is less than the number.

The former Imperator of the Rosicrucian Order, Ralph M. Lewis, wrote, "Pythagoras also assigned *moral qualities* to numbers. These meanings were not understood by the uninitiated, and, taken literally or without further qualification, they often seemed ludicrous. That the Pythagoreans had a more extensive and lucid meaning is known only to those schools of esotericism as the Rosicrucians, who are traditional affiliates of the ancient Pythagorean School at Crotona. Pythagoras regarded the numeral one as the source of all numerals. It was the point of beginning, the self-contained, the absolute. It likewise, therefore, depicted the reason, the *mind cause*. Two stood for opinion. Four represented justice and stability of character. Five represented marriage, because it consisted of the unity of the odd and even numbers two and *three*. Five was also held to be the key to the laws of color. The sphere was completion, that without beginning or end." Seven was said to represent opportunity, but it also symbolized Athena, the goddess of wisdom. The Pythagoreans used the five-pointed star to mean health.

The cosmology of the later Pythagoreans held that the universe is spherical and finite. Outside it was a void. At the center of the universe was a central fire, and next was a counter-Earth which cannot be seen from Earth because the side of the Earth on which we live is turned away from it. After the counter-Earth came the planets in this order:

> Number theory was fundamental to the teachings of the Pythagorean Community at Crotona. According to their ideas, number is the essence of the created universe. Number is Being. The cosmos was created and ordered according to the divine, ideal plan or pattern. Number is basic to the nature of the divine pattern and its manifestation in the actual world.

Earth, the Moon, the Sun, Mercury, Venus, Mars, Jupiter, Saturn, and the sphere of the fixed stars. This makes ten spheres revolving around the central fire. The motion of these bodies resulted in the harmonious music of the spheres.

The universe came into being from the central fire or the Hearth of the Universe. It was the original unit or monad. The fire is limited; from the unlimited void outside the universe comes the breath which the universe breathes, and which separates things keeping them distinct. Hence, there is a duality consisting of the central fire or unit and the void.

The Pythagorean teachings also included music and harmony. They noted the correspondence between numbers in musical harmony and the universe, or to put it as Aristotle did, "The whole Heaven or visible universe is a musical scale or number." It is possible that the Pythagoreans had a concept such as the keyboards used by Robert Fludd, which will be taken up later, or the present day Rosicrucian Cosmic Keyboard.

Systems such as the Pythagorean are a means of representing humanity's understanding of order. The study of the sciences, according to the Pythagoreans, and the study of the theory of numbers which is the foundation of creation, is an aid in achieving harmony between the soul and that on which one meditates. It is, therefore, a means of becoming attuned with the Cosmos and God. The One becomes the many, the many return to the One, but the many also exhibit the archetypal order and pattern on a mundane level.

The influence of the Pythagorean Community extended over a long period of time. Greek philosophers such as Plato, the followers of Democritus, and even Parmenides and Aristotle who disagreed with them, were influenced by their ideas. Arabic thought shows Pythagorean influences. Mystics such as Fludd, Vaughan, and Heydon based their philosophy to some extent on Pythagorean ideas, as did scientists such as Copernicus, Kepler, Galileo, and Newton.

BIBLIOGRAPHY

Bulmer-Thomas, Ivor, ed. and trans. *Selections Illustrating the History of Greek Mathematics*, 2 vols. Cambridge: Harvard University Press; London: W. Heinimann, ltd., 1939-1941.

Burnet, John. *Early Greek Philosophy*. London: A & C Black, 1908; paperbound: New York: Meridian Books, 1957.

Cornford, F. M. *From Religion to Philosophy*. Princeton: Princeton University Press, 1991.

Cornford, F. M. *Plato and Parmenides*. London: Kegan Paul, 1939.

Lewis, Ralph M. "Mystery of Numbers." *Rosicrucian Digest*. Vol. 23, No. 1 (1945): 4-6, 18-21.

Neugebauer, Otto. *The Exact Sciences in Antiquity*. Princeton: Princeton University Press, 1951.

Nicomachus. *Introduction to Arithmetic*. New York: Macmillan Co., 1926; Great Books of the Western World, Vol. II, *Encyclopaedia Britannica*, 1952.
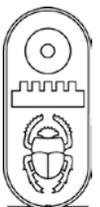
The Golden Verses of Pythagoras

Anonymous

Although no original writings of Pythagoras have survived antiquity, this collection of seventy-one aphorisms is mentioned by Hierocles of Alexandria in the fifth century CE. From internal evidence, some scholars believe that they come from a hexameter poem by Pythagoras, which was transmitted orally until persecution scattered the Pythagoreans, and they were then committed to writing.[1] The present edition is an original translation by Florence M. Firth,[2] adapted here for modern readers.

1. First worship the Immortal Gods, as they are established and ordained by the Law.

2. Reverence the Oath, and next the Heroes, full of goodness and light.

3. Honor likewise the Terrestrial Guiding Spirits by rendering them the worship lawfully due to them.

4. Honor likewise your parents and those most nearly related to you.

5. Of all the rest of humanity, make friends with those who distinguish themselves by their virtue.

6. Always give ear to their mild exhortations, and take example from their virtuous and useful actions.

7. Avoid as much as possible hating your friend for a slight fault.

8. [And understand that] power is a near neighbor to necessity.

9. Know that all these things are as I have told you; and accustom yourself to overcome and vanquish the following passions:

10. First gluttony, sloth, sensuality, and anger.

11. Do nothing evil, neither in the presence of others, nor privately;

12. But above all things respect yourself.

13. In the next place, observe justice in your actions and in your words.

14. And do not involve yourself in anything without rule or reason.

15. But always realize that it is ordained by destiny that all human beings shall die,

16. And that the goods of fortune are uncertain; and that as they may be acquired, so may they likewise be lost.

17. Concerning all the calamities that humans suffer by divine fortune,

18. Support with patience your lot, be it what it may, and never repine at it.

19. But endeavor what you can to remedy it,

20. And consider that fate does not send the greatest portion of these misfortunes to good people.

21. There are many possibilities that people can choose from, both good and bad;

Olga Deulofeu, S.R.C., *Pythagoras*

Pythagoras

22. So, from among the possibilities, carefully choose the best path for yourself.

23. But if falsehoods be advanced, hear them with mildness, and arm yourself with patience.

24. Observe well, on every occasion, what I am going to tell you:

25. Let no person, either through words or deeds, ever seduce you.

26. Nor entice you to say or to do what is not beneficial for yourself.

27. Consult and deliberate before you act, that you may not commit foolish actions.

28. For it is the mark of a miserable person to speak and to act without reflection.

29. But do that which will not afflict you afterwards, nor oblige you to repentance.

30. Never do anything which you do not understand.

31. Learn all you ought to know, and thus you will lead a very pleasant life.

32. In no way neglect the health of your body;

33. Give it drink and food in due measure, and also the exercise of which it has need.

34. Now, by measure, I mean what will not inconvenience you.

35. Accustom yourself to a way of living that is neat and decent without luxury.

36. Avoid all things that will occasion envy.

37. And be not prodigal out of season, like one who knows not what is decent and honorable.

38. Be neither covetous nor stingy; a modest measure is excellent in these things.

39. Do only that which will not hurt you, and think carefully about what you are going to do before you do it.

40. Never fall asleep after going to bed,

41. Till you have carefully considered all your actions of the day:

42. Where have I gone amiss? What have I done? What have I omitted that I ought to have done?

43. If in this examination you find that you have gone amiss, reprimand yourself severely for it;

44. And if you have done any good, rejoice.

45. Practice thoroughly all these things; meditate on them well, for you ought to love them with all your heart.

46. It is they that will put you on the path of divine virtue.

47. I swear it by the one who has transmitted into our souls the Sacred Quaternion, the source of nature, whose cause is eternal.

48. But never begin to set your hand to any work, till you have first prayed to the gods to accomplish what you are about to begin.

. . . observe justice in your actions and in your words.

49. When you have become familiar with this habit,

50. You will know the constitution of the Immortal Gods and of humans.

51. Even the extent of the power of gods and humans, and what contains and binds them together.
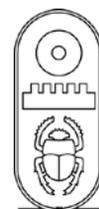
*Never fall asleep after
going to bed,
till you have carefully
considered all your
actions of the day…*

52. You shall likewise know that according to Law, the nature of this universe flows through all things alike,

53. So that you shall not hope for what you ought not to hope; and nothing in this world shall be hidden from you.

54. You will likewise know that human beings bring on their own misfortunes, voluntarily and of their own free choice.

55. Unhappy that they are! They neither see nor understand that what is best for them is within them.

56. Few know how to deliver themselves out of their misfortunes.

57. Such is the fate that blinds humanity, and takes away their senses.

58. Like huge barrels they roll to and fro, always oppressed with innumerable problems.

59. For fatal strife, seemingly innate, pursues them everywhere, tossing them up and down; nor do they perceive this.

60. Instead of provoking and stirring up strife, they ought, by yielding, to avoid it.

61. Oh! Jupiter, our Father! If you would deliver humans from all the evils that oppress them,

62. Show them the veil of ignorance that blinds their eyes.

63. But take courage: the human race is divine:

64. Sacred nature reveals to them the most hidden mysteries.

65. If she imparts to you her secrets, you will easily perform all the things for which I have ordained you,

66. And by the healing of your soul, you shall deliver it from all evils, from all afflictions.

67. But abstain from meat, which will prevent you from the purifying and the deliverance of your soul;

68. Carefully distinguish between things, and examine all things well.

69. Leaving yourself to always be guided and directed by the understanding that comes from above, allowing it to control your destiny.

70. And when you have eventually divested yourself of your mortal body, you will arrive at the most pure Æther,

71. And you shall be a God—immortal, incorruptible—and Death shall have no more dominion over you.

Where have I gone amiss?

What have I done?

*What have I omitted that I
ought to have done?*

ENDNOTES

[1]Kenneth Sylvan Guthrie, *The Pythagorean Sourcebook and Library*. (Newburyport, MA: Red Wheel Weiser, 1987), 163.

[2]Florence M. Firth, *The Golden Verses Of Pythagoras and Other Pythagorean Fragments* (Krotona, Hollywood: Theosophical Publishing House, 1904).

Pythagoreans and Sculptors: The Canon of Polykleitos

Hugh McCague, Ph.D., F.R.C.

Balance, measure, and law were important principles in ancient Greek art, poetry, drama, and philosophy. For example, proportion was stressed in music and philosophy by Pythagoras, in sculpture by Polykleitos, and in architecture as noted later by Vitruvius. An intriguing question for the student of mysticism is the nature of the interconnections between Pythagoreanism and Western Civilization's ideals of beauty exemplified by the statues of Polykleitos.

The *Canon of Polykleitos*, hereafter referred to as the Canon, was a treatise on creating and proportioning sculpture. It is one of the most important Western artistic and sculptural canons.[1] The author and sculptor Polykleitos was active during the High Classical period in ancient Greece. He had a workshop with apprentices at the shrines for the gods Zeus and Hera at Olympia. He is one of the renowned sculptors of the Classical period, along with Myron and Phidias.

The text of the Canon had a corresponding exemplary statue also called the "Canon," which has been identified as the *Doryphoros* or *Spear-bearer* (c. 450-440 BCE). The *Doryphoros* would have been cast in bronze from a clay model using the lost-wax technique. The treatise and original sculpture have not survived, but testamonia (i.e., quotes, paraphrases and comments)[2] on the Canon are extant from antiquity, as well as Roman marble copies of the original statue [Figure 1, page 24]. The sculpture of Polykleitos, in application of the Canon, represents a high ideal of the human in the dual aspects of our physical and divine natures.

The Long Tradition of Canons in Art

A canon in art can include both stipulations for subject matter and meaning, including clothing and accoutrements, and some system of proportions for the bodily parts in relationship to the whole. The system of proportions can be specific to types of humans, animals, and deities. Canonical traditions have a long history in various cultures, including canons—some still practiced—for Hindu, Buddhist, and Christian art and icons. The Roman architect Vitruvius gave a description of human bodily proportions based on the canonic tradition in art. During the Renaissance, Leonardo da Vinci and Albrecht Dürer intensively studied and extended the canonic description of Vitruvius. Notably, Leonardo's powerful drawing of the proportions of the human body [Figure 2, page 25] is largely based on the description of Vitruvius, which in turn harkens back to the Canon of Polykleitos.

The use of canons was well established in ancient Egypt. There were two canonical systems, very similar to each other, for wall paintings, relief sculpture, and full three-dimensional sculpture of gods, humans, and animals. These canons were based on a square grid system and standard measurement units derived from the human body (e.g., the "palm," the width of the palm, and the "cubit," the length of the forearm and outstretched hand). The canons for the standing human figure involved square grids, 18, and later 22, units high. The earlier canon dates from the Third to the Twenty-sixth Dynasty, and the later canon from the Twenty-sixth Dynasty (c. 665-525 BCE). Canons for painting
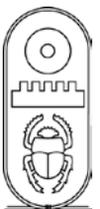
Figure 1: *Doryphoros, Spear-bearer*, 150-120 BCE. Marble. Roman copy of bronze Greek orginal after Polykleitos. Photo by Dan Dennehy © 2007 Minneapolis Institute of Arts.

and sculpture were part of the Egyptians' highly organized socio-religious systems. The application of the Egyptian canons conveyed stability, timelessness, and a sense of eternal life.[3]

The early Greek sculptors of the sixth century BCE learned some of their methods from the Egyptians. Part of this tutelage must have included the latter's canon because of its central place in the sculptural process. After the Egyptian canons, the next important and detailed description of a canon in the Western world is in the Roman Vitruvius's *De Architectura*[4] (c. 23 BCE), who was trying to follow exemplary practices of the Greeks. The common characteristics and corresponding proportions of the late Egyptian canon and the "Vitruvian canon" were likely directly or indirectly present in the Canon.[5] Indeed, in more mathematical terms, the Canon appears strikingly as an interpolation between the artistic canon of the Egyptian Twenty-sixth Dynasty and the canon of Vitruvius.[6]

A Reconstructed Outline of the Canon of Polykleitos

From the quotations, paraphrases, and comments on the Canon extant from antiquity, an outline of the Canon treatise can be reasonably inferred as follows:

1) Perfection comes about little by little through many numbers (Philo of Byzantium, *Belopoeica* 4.1).

2) The numbers must all come to a congruence through some system of commensurability and harmony, for ugliness is immediately ready to come into being if only one chance element is omitted or inserted out of place (Plutarch, *Moralia* 45C).

3) Perfection is the exact Mean in each particular case—human, horse, ox, lion, and so on (Galen, *de Temperamentis* 1.9; *Ars medica* 14; *de Optima nostri corporis constitutione* 4).
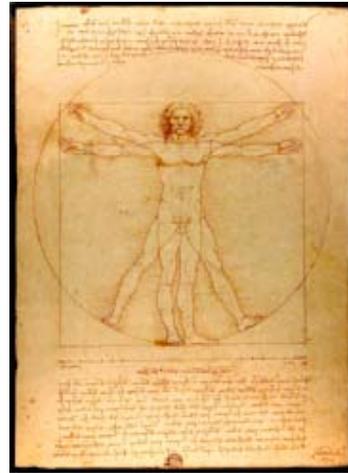

Figure 2: Leonardo da Vinci, *Vitruvian Man*, 1485-90, Venice, Galleria dell' Accademia. Photo by Luc Viatour.

4) So the perfect human body should be neither too tall nor too short, nor too stout or too thin, but exactly well proportioned (Galen, *Ars medica*; Lucian, *de Saltatione* 75).

5) Such perfection in proportion comes about via an exact commensurability of all the body's parts to one another: of finger to finger and of these to the hand and wrist, of these to the forearm, of the forearm to the upper arm; of the equivalent parts of the leg; and of everything to everything else (Galen, *de Temperamentis* 1.9; *Ars medica* 14; *de Placitis Hippocratis et Platonis*; *de Usu partium* 17.1; *de Optima nostri corporis constitutione* 4).

6) This perfection requires scrupulous attention to replicating the body's anatomy; not a single error can be tolerated (Galen, *de Usu partium* 17.1).

7) In bronze work, such precision is most difficult when the clay is on/at the nail (Plutarch, *Moralia* 86A and 636B-C; cf. Galen, *de Usu partium* 17.1).

8) (Exposition of the numbers and their commensurabilities for the perfect human body.)
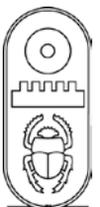
9) (Conclusion.)[7]

We see throughout this reconstructed outline the central emphases on number, proportion, commensurability, exactitude, and beauty. All these features are closely akin to Pythagorean philosophy.

Pythagoreans and Plato

The philosophy and work of Pythagoras of Samos (c. 570 - c. 490 BCE) and the Pythagoreans is important to investigating the Canon. The Polykleitan testamonia with their emphasis on number, harmony, and beauty appear to be applying, or closely related to, Pythagorean wordings and conceptions.[8] Vitruvius emphasized the importance of the Decad, central to Pythagorean philosophy, in his canonic description of the harmonious proportions of the human body as exemplary for architecture. Also, Aristotle described the ten Pythagorean polarities/dualities, arising from the underlying unity. Unity is, of course, symbolized by 1. Duality is symbolized by 2 and expressed as 1:1. The Pythagorean dualities are expressed in the walking pose and musculature of the *Doryphoros* (e.g., limit/unlimited, odd/even, one/plurality, right/left, nonmoving/moving, straight/bent, square/oblong).[9]

As a continuator of the essentials of Pythagorean philosophy, Plato (427-347 BCE), with his strong interest in beauty and mathematics, held Polykleitos in high esteem.[10] An insightful statement regarding the matter of a proportional canon is Plato's declaration in *Philebus* that "If one were to remove from any of the arts the elements of arithmetic, proportion, and weight, what would remain of each would be negligible indeed."[11] Also in that book, Plato writes at some length on proportion and measure.[12] For example, "Measure and proportion are everywhere identified with beauty and virtue."[13] Also, "Beauty, proportion, and truth…considered as one" gives rise to the good.[14] Plato mentions painters, who contemplate transcendent truth first, and then "establish in this world…the laws of the beautiful, the just, and the good."[15] This statement would apply to sculptors as well.

For Plato, the transcendent truth would involve divine archetypes, including essential elements of mathematics, and the laws would also involve mathematics as seen from his quotations above. Overall, these statements show the moral and philosophical importance that the mathematical nature of the Canon would have conveyed to Plato, less than a century after the Canon was written.
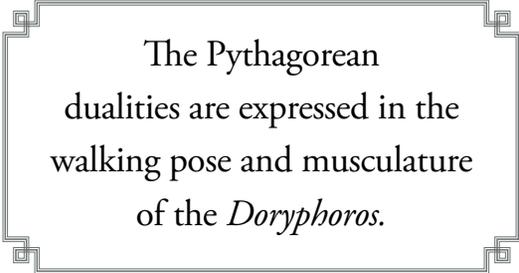
> The Pythagorean dualities are expressed in the walking pose and musculature of the *Doryphoros.*

The literary testimonia on the Canon and the Roman sculptural copies indicate a combined application of contemporary Hippocratic surgical texts and close empirical observation of the human body.[16] The Canon applied two distinct models of proportion, consistent with Pythagorean philosophy, for its composition and the lengths of body parts: 1) 1:1 balancing of opposites from the *isonomia* theory of health, and 2) the ratios of commensurate but unequal lengths of musical harmony.[17]

Some insight into the proportional relationships in the Canon is provided by a testamonia by Galen referencing the texts of Chrysippos of Soli (c. 280 - c. 207 BCE), and ultimately Polykleitios:

> *For Chrysippos showed this clearly in the statement from him quoted just above, in which he says that the health of the body is identical with*
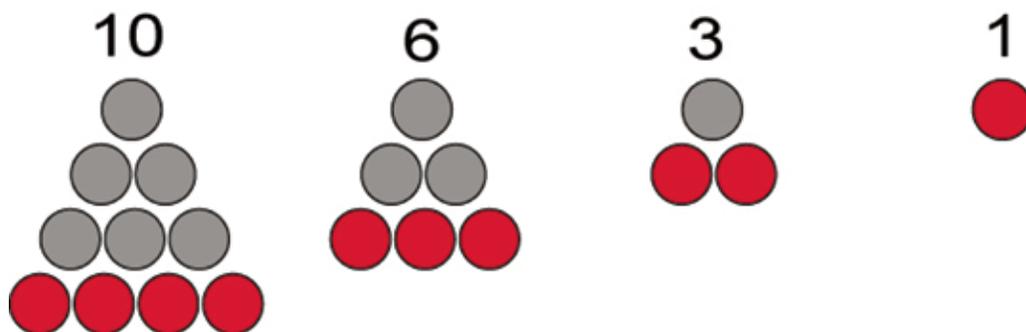
Figure 3: Triangle Numbers. © 2008 Yoni Toker/Wikimedia Commons.

due proportion in the hot, the cold, the dry, and the moist (for these are clearly the elements of bodies), but beauty, he thinks, does not reside in the proper proportion of the elements but in the proper proportion of the parts, such as for example that of finger to finger and all these to the palm and base of hand, of those to the forearm, of the forearm to the upper arm and of everything to everything else, just as described in the Canon of Polykleitos. For having taught us in that work all the proportions of the body, Polykleitos supported his treatise with a work of art, making a statue according to the tenets of the treatise and calling it, like the treatise itself, the Canon. So then, all philosophers and doctors accept that beauty resides in the due proportion of the parts of the body.[18]

This description provides a clearer picture of the Canon by describing it as a set of proportions of successive body parts. If a, b, c,…represent the lengths of the successive parts of the body described in the quotation, then the corresponding proportions in the Canon are: "a:b, b:c.…"[19] In Vitruvius's description of a canon, the lengths and heights of body parts are given as fractions of the total height and face height, rather than proportions of successive parts of the body. However, both mathematical expressions have an underlying equivalency.

For example, for Vitruvius, the head height is one-eighth of the total height, and the forearm length is one-quarter,[20] which form a ratio of 1:2:8 for the ratio of the head height to the forearm length to the total body height. Also, beauty residing in due proportion of the parts and whole of the body is in accord with the quotations from Plato given earlier and Vitruvius's description of a canon.[21]

As noted earlier, the Polykleitan testamonia appear to be applying, or closely related to, Pythagorean wordings and conceptions.[22] The figurate numbers were one of the important features of Pythagorean mathematics. The figurate numbers, as implied by their name, formed various shapes such as triangles, squares, and oblong rectangles [Figure 3]. These shapes and their figurate or "gnomonic" numbers may have helped form the shapes dictated by the Canon. A conceptual link between the "gnomonic" numbers and the crafts is the *gnomon*, the set square used by artisans. They were in an L and cross shape.[23] Also, in the figurate number for the Decad, ten, we note the musical ratios of the octave (1:2), fifth (2:3) and fourth (3:4) formed by the successively paired rows.[24] These musical ratios were investigated by Pythagoras on the monochord, also known in Greek as the *canon*. Thus, the Pythagorean theory of figurate numbers and the associated ratios from their construction may have provided a
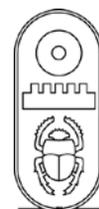
suitable and attractive theory for Polykleitos to apply in his Canon.[25]

In the history of Western culture, the Canon of Polykleitos became an exemplar for accuracy and the harmonious relations of the constituent parts to the whole in wide-ranging endeavors in art, medicine, science, and engineering.

The Perfect Ten and the Supermodel

In our own time period, we are surrounded by the heritage and vestiges of the Canon of Polykleitos and its numerical order, akin to the Pythagorean philosophy, that involve the sizing and proportioning of the human body and face: life drawing, ergonomics, reconstructive and cosmetic surgery and dentistry, clothing and fashion to name a few. We observe the great popularity and adulation of youthful and attractive fashion models, movie stars, and athletes. This fascination arises from a long biological, social, and cultural history of humanity [Figure 4].[26]

Additionally, for the mystic, the perfection sought and created in the world is a remembrance and projection of divine archetypes. You may have noticed, for example, that it is harder to estimate the age of a person who is extremely attractive. To the Platonist, the reason is that that person's outer form is relatively close to matching the divine and timeless archetype. Back of the supermodel is the super model, the Canon of Polykleitos. Behind the "Perfect Ten" is the perfect ten, the Decad of the Pythagorean philosophy and the Vitruvian canon. We see in the fads and pursuits of popular culture the outer husk of the inner kernel that is truly longed for: the wisdom bespoken of by the Pythagoreans and the Canon.

Remembering Who We Are

While the sculptures of the *Doryphoros* and others like it are renowned in the history of art, at best they direct us beyond

Figure 4: Halle Berry, 2004. Photo © 2004 by Alexander Horn/Wikimedia Commons.

history, which is a construction based on the necessary illusion of time. The inspiration behind these statues, closely akin to the Pythagorean philosophy, out of which these works manifested, is directly available to us in the intuitive and meditative experience of the eternal now and eternity. As great as the beauty of these works is, they at best point us to the much greater beauty and perfection that has always been within us, and to which our outer nature will be greatly ennobled by recognizing and heeding throughout life. The Canon and these works of art can help convey to us the inherent nobility of the God within us and our capacity to be a co-creator with God, in the image of God, directing assertively and harmoniously our affairs and environment.

ENDNOTES

[1] E. Panofsky, "The History of the Theory of Human Proportions as Reflection of the History of Styles" in *Meaning in the Visual Arts*, Anchor Book edition, (Garden City, NY: Doubleday, 1955), 55-107, Fig. 17-27, provides a broad-ranging description and analysis of artistic canons in use in ancient Egypt, Greece, and later. While some of Panofsky's interpretations are not convincing, he still provides a helpful overview of Western canons.

[2] Some of the main testamonia in Greek with English translations are given by Andrew Stewart, "The Canon of Polykleitos: A Question of Evidence," *The Journal of Hellenic Studies* XCVIII (1978), 124-126. A subsequent clarification of a statement by Philo Mechanicus pertaining to Polykleitos by using two previously unnoticed statements of Diogenes Laertius on the lives of Socrates and Zeno is given by Stewart, "Nuggets: Mining the Texts Again," *American Journal of Archaeology* 102.2 (1998), 273-275. Additionally, 26 relevant testamonia quotations in Greek with English translations are provided by Gregory Vincent Leftwich, *Ancient Conceptions of the Body and the Canon of Polykleitos,* doctoral dissertation (Princeton University, 1987), 80-96. Some of the Greek terminology that is important to understanding the Canon has been challenging for scholars to interpret and translate into English as noted by Stewart, 1978, especially p.126, and Stewart, 1998, pp. 273-275. In result, some care needs to be taken in using some of the testamonia involved.

[3] Some helpful texts on the canons in ancient Egyptian art include: W. Davis, *The Canonical Tradition in Ancient Egyptian Art* (Cambridge: Cambridge University Press, 1989), especially 11-12, 20-27; E. Iversen, "The Canonical Tradition" in *The Legacy of Egypt,* ed. J. R. Harris, 2nd ed. (Oxford: Oxford University Press, 1971), 55-82, Plates 3-4, especially 56-71; E. Iversen and Y. Shibata, *Canon and Proportions in Egyptian Art,* 2nd ed. (Warminster: Aris and Phillips, 1975); Panofsky, *History of Theory of Human Proportions*, 57-62, Fig.18.

[4] Vitruvius. *Vitruvius: Ten Books of Architecture,* trans. by I. D. Rowland, commentary and illustrations by T. N. Howe, additional material by I. D. Rowland and M. J. Dewar, (Cambridge and New York: Cambridge University Press, 1999).

[5] Iversen, *Legacy of Egypt*, "The Canonical Tradition." 76, 78-79. These common correspondences need be explored further and checked thoroughly.

[6] Vitruvius, *Ten Books of Architecture*, I.III.1-9.

[7] Stewart, "Nuggets," 275.

[8] J. E. Raven "Polyclitus and Pythagoreanism," *The Classical Quarterly*, New Series 1.3/4 (1951), 147-152; Stewart, "The Canon of Polykleitos,"127,130-131; Stewart, "Nuggets," 274-275; Gregory Vincent Leftwich, "The Canon of Polykleitos: Tradition and Content" in *Canon. The Princeton Journal: Thematic Studies in Architecture 3* (1988): 37-78; Peter Kidson, "The Figural Arts" in *The Legacy of Greece: A New Appraisal,* ed. M. I. Finley (Oxford: Oxford University Press, 1981), 416-417 discusses more generally the apparent close relationship between canons and Pythagoreanism.

[9] Leftwich, "The Canon of Polykleitos," 68-74.

[10] Plato, *Protagoras,* Greek with English trans. by W. R. M. Lamb, *Plato,* IV, Loeb Classical Library (London and Cambridge, MA: Harvard University Press, 1952), 328c.

[11] Plato, *The Statesman; Philebus,* Greek with English trans. by Harold N. Fowler, *Plato,* VIII, Loeb Classical Library (London and Cambridge, MA: Harvard University Press, 1975), 55e.

[12] Plato, *Philebus*, 64d-66b.

[13] Plato, *Philebus*, 64e.

[14] Plato, *Philebus*, 64e-65a.

[15] Plato, *The Republic,* Greek with English trans. by Paul Shorey, 2 vols., Loeb Classical Library (Cambridge, MA: Harvard University Press, 1953-1956), VI.484d.

[16] Leftwich, *Ancient Conceptions*. Leftwich, "The Canon of Polykleitos;" Leftwich, "Polykleitos and Hippokratic Medicine" in *Polykleitos, the Doryphorus, and Tradition,* ed. Warren G. Moon (Madison, WI, and London: University of Wisconsin Press, 1995), 38-51.

[17] Leftwich, *Ancient Conceptions*; Leftwich, "The Canon of Polykleitos."

[18] Galen, *De placitis Hippocratis et Platonis*, v, 448, trans. in Stewart, "Canon of Polykleitos," 125, 125 fn.23, and correction on 131.

[19] Stewart, "Canon of Polykleitos," 131.

[20] Vitruvius, *Ten Books of Architecture*, I.III.1-9.

[21] Vitruvius, *Ten Books of Architecture*, I.III.1-9.

[22] Raven "Polyclitus and Pythagoreanism"; Stewart, "The Canon of Polykleitos,"127,130-131; Idem, "Nuggets," 274-275; Leftwich, "The Canon of Polykleitos"; Kidson, "The Figural Arts," 416-417 discusses more generally the apparent close relationship between canons and Pythagoreanism.

[23] Stewart, "The Canon of Polykleitos," 130, 130 fn.54; R. R. Stieglitz, "Classical Greek Measures and the Builder's Instruments from the Ma'agan Mikhael Shipwreck," *American Journal of Archaeology* 110.2 (2006), 195 fig.4. Available on the web through http://www.ajaonline.org/.

[24] Leftwich, "The Canon of Polykleitos," 66.

[25] Stewart, "The Canon of Polykleitos," 130.

[26] G. L. Hersey, *The Evolution of Allure: Sexual Selection from the Medici Venus to the Incredible Hulk* (Cambridge, MA, and London: MIT Press, 1996); Hersey, "Beauty is in the eye of a Greek chisel holder." *Times Higher Education Supplement* n.1230 (May 31, 1996): 16-17; N. Etcoff, *Survival of the Prettiest: The Science of Beauty,* Anchor Book edition, (New York: Anchor Books, 1999, 2000), 15-18, 140-147.
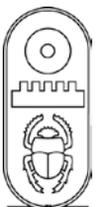
Pythagoras and Music

Melanie Richards, M.Mus., S.R.C.

*T*he musician draws the bow across the violin string and immediately the inert atmosphere becomes vibrant and transparent, *"…as if sound from non-spatial realms shines through a window into the world of space."*[1] *What is being demonstrated is a phenomenon known as the overtone series, in which any tone, played or sung, activates a column of mathematically-related notes which vibrate sympathetically with the sounded pitch and create resonance. Octaves throughout the universe respond, in a modern, scientific "music of the spheres," echoing the hypothesis that dates back to ancient times.*

Until the Industrial Revolution, art, religion, and science were intertwined; the order of the universe was an ongoing study, later coming to fruition in the modern science of astronomy. But in the meantime, something fell away from science that had

defined it for centuries—a connection with mysticism. Pythagoras—the Greek philosopher, initiate, and teacher—stood at the point of the marriage of music, science, and mysticism.[2] He was one of the first "scientists," and as an initiate, he asked deep questions of the universe.

Traveling to the centers of Babylonia and Egypt before settling in southern Italy, Pythagoras was likely exposed to ancient teachings about the power of number, as well as subjects which sensitized him to ask those important questions. He was known to be a person of great knowledge and psychic power. Due to his higher nature, legends grew up around him, such as an ability to travel to celestial realms and actually hear the music of the spheres. The school that he founded went on to take his oral teachings to even greater heights, influencing every future era of Western civilization. If we ask why Pythagoras's teachings and discoveries were so far-reaching, we arrive at the beginning point of the law that "everything vibrates"—a discovery which became a turning-point for a new understanding of the universe.

The Discovery of Musical Law

Pythagoras's mind, alive to possibilities, came upon a very simple theorem that had cosmic value. The legend is that Pythagoras, while walking past a blacksmith's shop, heard different pitches being emitted from the striking of the anvils. What is said to have gone through his mind was that the variation in pitches was possibly created by the different weights of the hammers. This story, possibly symbolically inspired by the legend of a magical blacksmith's hammer, may have a basis in fact;[3] at any rate, Pythagoras

Gregor Reisch, *Arithmetica*, from *Margarita Philosophia* (1504). Pythagoras is on the right. Photo by Frank Schulenburg/Wikimedia Commons.
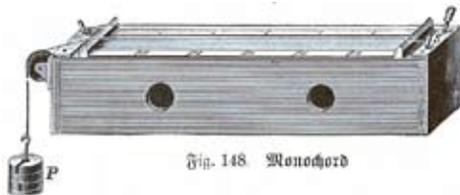
Monochord from the *Library of General and Practical Knowledge for Military Candidates* Volume 3, 1905. Deutsches Verlaghaus Bong & Co. Berlin.

began to experiment with musical overtones and ratios, which led to one of the most important discoveries of all time.

In his search to determine interval ratios in music (an interval being both the space and the relationship between two sounding notes), Pythagoras employed the lyre and the monochord, a one-stringed instrument he may have invented, which featured frets on the fingerboard at various lengths. By stopping the string exactly at the halfway point, he produced an octave, or a ratio of 1:2. By dividing the string into various other lengths, intervals of the fourth and fifth were produced, and so on.[4] Pythagoras and his followers conceived of the universe as a vast lyre, in which each planet, vibrating at a specific pitch, in relationships similar to the stopping of the monochord's string, harmonized with other heavenly bodies to create a "music of the spheres," a concept which remained viable for centuries. Even though his theory was primitive, it serves to give us a picture which was later developed by philosophers such as Boethius, Johannes Kepler, the Rosicrucian Robert Fludd, and, in contemporary times, by scientists working with quantum relationships.

The theories set forth by Pythagoras are complex to those uninitiated into mathematical and musical analysis, but certain concepts are important to set forth here. Nicomachus of Gerasa, a theorist in the first or second century CE, was an authority on Pythagoras and called himself a Pythagorean. In his *Manual of Harmonics*, he models his explanations of intervals, numbers, and the music of the spheres on Pythagoras's teachings as passed down through the years, and it is a good source from which to explain some basic concepts.[5]

The Pythagoreans found that the *speed of vibration* and the *size of the sound-producing body* were the factors in music that were regulated by number. A modern example would be the stringed bass, tuned to the lowest notes due to its size. Sound was said to be produced by percussion (striking), followed by a vibration in the air, which was then received by the ear and carried, in Plato's words, "to the brain and the blood and transmitted to the soul."[6] The theory was that the vibrational frequency of a stretched string is inversely proportional to its length.[7] This basic statement, despite the fact that the Pythagoreans had no way of actually measuring the vibrations of tones—so their method of assigning numerical values could not be relied on—laid the groundwork for the development of the science of acoustical

F. Gafurio, Pythagoras *Experimenting with Weights on the End of Fixed Length Strings*, in *Theorica Musice*, 1492.
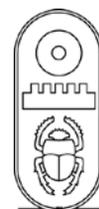
physics. By assigning mathematical data as a basis for harmonious sound, Pythagoras was going against the persuasion of the day that pleasing harmony was merely a matter of taste and instinct.

The Perfect Octave Creates *Harmonia*

Working with his seven-stringed lyre, and thinking of the divisions of the strings that he had discovered, Pythagoras realized that for the relationships to be complete and balanced, the perfect interval of an octave (e.g., C^1-C^2) must be part of the existing scale. Because he had no way of numerically measuring the exactness of the divisions, we have to assume that he heard the sameness of the octave and "saw" the nodes that characterized the overtones.[8] He then added an eighth string to the lyre to create this octave, an action not easily condoned at the time, as Greek society held the number seven as sacred, and the addition of the octave disturbed the symbolism of the modes and the seven planets. However, Pythagoras's standing in the community and in the minds of his followers neutralized any censure that might have ensued.[9]

The original scale of seven notes contained a half step (the smallest interval in Western music) after the fourth tone.

Pythagoras . . . conceived of the universe as a vast lyre, in which each planet, vibrating at a specific pitch, in relationships similar to the stopping of the monochord's string, harmonized with other heavenly bodies to create a "music of the spheres," a concept which remained viable for centuries.

When the octave was added, the interval that was created between the fifth note and the octave would be dissonant and offensive to Greek ears. Although this theory is controversial, it is assumed that what Pythagoras did technically was to change the fifth note by making it a half step higher. This caused the two four-note halves of the scale (known as *tetrachords*) to be separated by a whole step instead of a half step. This action preserved the value of the tetrachords, yet created the octave he was looking for.

The original seven-note scale looked like this:[10]

$$\text{E F G } \underline{\text{A B}^\flat} \text{ C D}$$
half step

If the octave E were simply added as the eighth note, the interval between the $B^\flat$ and upper E would be a tritone (three full steps), which is dissonant:

$$\text{E F G A } \underline{\text{B}^\flat \text{ C D E}}$$
dissonance

So Pythagoras merely changed the $\underline{\text{B}}^\flat$ to a $B^\natural$, thereby creating a whole step between the tetrachords.

$$\text{E F G } \underline{\text{A} \qquad \text{B}}^\natural \text{C D E}$$
whole step

Now the $B^\natural$-E relationship was a consonant perfect fourth. This brilliant move changed history. Philosophically and musically, what he did was to create what he termed *harmonia* (unity, "fitting together") within the scale. The understanding of *harmonia* would teach humankind immutable laws and appeal to the higher, rational intellect; it balanced the limitless and the limited, heaven and earth.[11] Adding the octave implied more than just a re-sounding of the primary tone at a higher level; the octave is a completion of the scale and of all the intervals therein. The twentieth-century philosopher Rudolf Steiner, in teaching about the intervals, stated that "…the feeling

for the octave brings us to find our own self on a higher level." In his perception, the true experience of the octave will "become a new form of proving the existence of God."[12]

So Pythagoras's experiment altered music for all time, made possible the Greek scale systems, which later evolved into the medieval modal scales and our modern major and minor scales, established the basis for all future music theory work, and gave us an interval for the future. Flora Levin's commentary on Nicomachus's manual surmises: "As a musical act, [adding the octave] was sublimely simple; as a mathematical production, however, it was incalculably profound."[13]

Through the discovery of musical laws, and that there is an order behind musical sounds, Pythagoras and his followers connected to the thought that the same order and relationship is found in nature and the universe:[14] "Music *was* number, and the cosmos was music."[15] Pythagoras as scientist and initiate experienced this revelation in the deepest sense of the word: suddenly a doorway was opened into a mystical understanding of the universe. The Pythagoreans realized that this mathematical order, or hidden pattern which was the basis of musical sounds, lay behind everything in nature and the cosmos. This was the first time that such a conscious connection had been established.[16]

Pythagoras's discovery of musical ratios and overtones provided him with the basis for his mathematical work; his vision of intervals as mathematical ideals symbolizing universal harmony or divine substance moved the cosmos from a poetic, visual phenomenon to a scientific conception that spawned centuries of further development in mathematics, music, astronomy, and cosmogony.
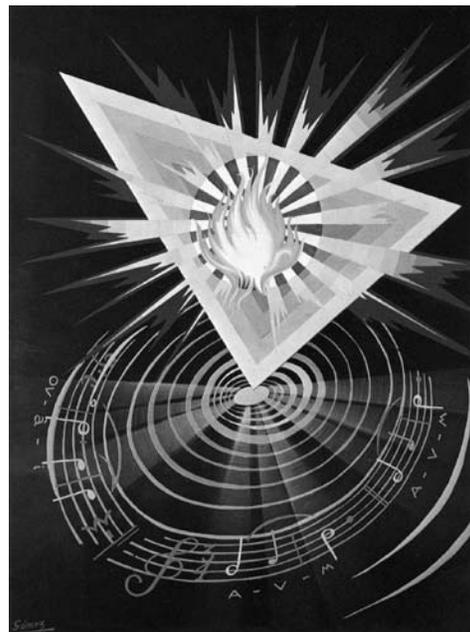
Nicomedes Gómez, *The Creative Word.*

The Therapeutic Value of Music

A legend reported by Boethius (480-524 CE) states that Pythagoras, upon hearing of a youth who had been jilted by his lover and was preparing to set her house on fire, determined that the youth was under the influence of a certain musical mode (scale). By suggesting that he change his tune and
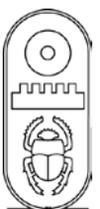
employ a melody based on an alternate scale, Pythagoras was able to restore the youth to a state of calmness.[17] Whether this story is true or not, Pythagoras was one of the first musicians to recognize the therapeutic power of music. His work with the mathematical properties and ratios of musical intervals convinced him that the music of the human organism would respond in various ways to these relationships; for the Pythagoreans, "both music and the soul share a basis in number."[18] The Greek modes used at that time were distinguished primarily by their intervallic structures; each was thought to have a positive or negative effect on the human psyche. Consequently, certain rhythms, scales, and songs were used to heal the body and soothe the passions.

The Pythagoreans were said to have musical exercises for sleeping and waking, and to stimulate certain moods for work and relaxation. Later, Plato (ca. 427-347 BCE), who was strongly influenced by the Pythagorean doctrine of universal number, would take up this concept and make it into a science, prescribing musical modes for warriors, women, and various illnesses and passions.

Plato introduced Pythagoras's vision of a musical cosmos into the mainstream, which would result in it becoming a standard in the Greek world-view, and eventually in that of the entire civilization of Western thought. Pythagorean principles are the basis of much of musical and mathematical study, and the strength and depth of his discoveries changed the way the world perceived itself, even up to our times. However, his influence goes beyond the world of science and mathematics; it penetrates into the mystical

1:1	2:1	3:1	4:1	5:1	6:1	7:1	8:1	9:1	10:1	11:1	12:1	13:1	14:1	15:1	16:1
C	C	G	C	E	G	Bb	C	D	E	Gb	G	Ab	Bb	B	C
1:2	2:2	3:2	4:2	5:2	6:2	7:2	8:2	9:2	10:2	11:2	12:2	13:2	14:2	15:2	16:2
C	C	G	C	E	G	Bb	C	D	E	Gb	G	Ab	Bb	B	C
1:3	2:3	3:3	4:3	5:3	6:3	7:3	8:3	9:3	10:3	11:3	12:3	13:3	14:3	15:3	16:3
F	F	C	F	A	C	Eb	F	G	A	B	C	Db	Eb	E	F
1:4	2:4	3:4	4:4	5:4	6:4	7:4	8:4	9:4	10:4	11:4	12:4	13:4	14:4	15:4	16:4
C	C	G	C	E	G	Bb	C	D	E	Gb	G	Ab	Bb	B	C
1:5	2:5	3:5	4:5	5:5	6:5	7:5	8:5	9:5	10:5	11:5	12:5	13:5	14:5	15:5	16:5
Ab	Ab	Eb	Ab	C	Eb	Gb	Ab	Bb	C	D	Eb	F	Gb	G	Ab
1:6	2:6	3:6	4:6	5:6	6:6	7:6	8:6	9:6	10:6	11:6	12:6	13:6	14:6	15:6	16:6
F	F	C	F	A	C	Eb	F	G	A	B	C	Db	Eb	E	F
1:7	2:7	3:7	4:7	5:7	6:7	7:7	8:7	9:7	10:7	11:7	12:7	13:7	14:7	15:7	16:7
D	D	A	D	Gb	A	C	D	E	Gb	Ab	A	B	C	Db	D
1:8	2:8	3:8	4:8	5:8	6:8	7:8	8:8	9:8	10:8	11:8	12:8	13:8	14:8	15:8	16:8
C	C	G	C	E	G	Bb	C	D	E	Gb	G	Ab	Bb	B	C
1:9	2:9	3:9	4:9	5:9	6:9	7:9	8:9	9:9	10:9	11:9	12:9	13:9	14:9	15:9	16:9
Bb	Bb	F	Bb	D	F	Ab	Bb	C	D	Eb	F	Gb	Ab	A	Bb
1:10	2:10	3:10	4:10	5:10	6:10	7:10	8:10	9:10	10:10	11:10	12:10	13:10	14:10	15:10	16:10
Ab	Ab	Eb	Ab	C	Eb	Gb	Ab	Bb	C	D	Eb	F	Gb	G	Ab
1:11	2:11	3:11	4:11	5:11	6:11	7:11	8:11	9:11	10:11	11:11	12:11	13:11	14:11	15:11	16:11
Gb	Gb	Db	Gb	Bb	Db	E	Gb	A	Bb	C	Db	Eb	E	F	Gb
1:12	2:12	3:12	4:12	5:12	6:12	7:12	8:12	9:12	10:12	11:12	12:12	13:12	14:12	15:12	16:12
F	F	C	F	A	C	Eb	F	G	A	B	C	Db	Eb	E	F
1:13	2:13	3:13	4:13	5:13	6:13	7:13	8:13	9:13	10:13	11:13	12:13	13:13	14:13	15:13	16:13
E	E	B	E	G	B	Db	E	Gb	G	A	B	C	Db	D	E
1:14	2:14	3:14	4:14	5:14	6:14	7:14	8:14	9:14	10:14	11:14	12:14	13:14	14:14	15:14	16:14
D	D	A	D	Gb	A	C	D	E	Gb	Ab	A	B	C	Db	D
1:15	2:15	3:15	4:15	5:15	6:15	7:15	8:15	9:15	10:15	11:15	12:15	13:15	14:15	15:15	16:15
Db	Db	Ab	Db	F	Ab	B	Db	Eb	F	G	Ab	Bb	B	C	Db
1:16	2:16	3:16	4:16	5:16	6:16	7:16	8:16	9:16	10:16	11:16	12:16	13:16	14:16	15:16	16:16
C	C	G	C	E	G	Bb	C	D	E	Gb	G	Ab	Bb	B	C

Pythagorean Table (Lambdoma)

side of number and music. A principal teaching of the Pythagorean School was that God is universal harmony, perceived through number.[19]

Albert von Thimus in the nineteenth century used Pythagoras's concepts to create a "Pythagorean Table," which mathematically "explains" the effect of music on the universe and on the human being.[20] Working from an ancient treatise, von Thimus and his colleagues believed that they had come upon the "fundamental diagram of the lost science of Harmonics, hinted at by Plato… as the culmination of all learning, but never revealed publicly."[21] The table projects the universe; although mathematically complex, it can be simplified by stating that each rational fraction and integer is arrived at as an intersection of an overtone and an undertone row. A tone is projected as a created "being," each being manifesting number and note. All beings have the same root; the original tone is 1/1 = God. If we take the table's calculations beyond its boundaries, we arrive at 0/0, the point which sounds no tone: the Unmanifest, the Absolute, Mind, and Silence. Pythagoras's theorems thus projected point toward the future of science as it continues to ask questions of the universe.

Pythagoras's experience as an initiate, scientist, musician, and mystic made him singularly qualified to explore the mysteries of the universe through music and number. As Guy Murchie, writing on the music of the spheres, concludes, "Nature has a beautiful simplicity of order. And the intuitions of Pythagoras…are proving substantially justified."[22]

ENDNOTES

[1] Frits Julius, *Sound Between Matter and Spirit* (Chestnut Ridge, NY: Mercury Press, 1993), 24.

[2] Jamie James, *The Music of the Spheres: Music, Science, and the Natural Order of the Universe* (New York: Copernicus, an imprint of Springer-Verlag New York, by arrangement with Grove Press, 1993), 4.

[3] Kitty Ferguson, *The Music of Pythagoras: How An Ancient Brotherhood Cracked the Code of the Universe and Lit the Path from Antiquity to Outer Space* (New York: Walker, 2008), 67.

[4] For a fine explanation of musical intervals, which are key to the understanding of Pythagoras's discovery, see James, *Music of the Spheres*, 33-35.

[5] See *The Manual of Harmonics of Nicomachus the Pythagorean,* translation and commentary by Flora R. Levin, (Grand Rapids, MI: Phanes Press, 1994), passim.

[6] From the *Timaeus*, quoted in Nicomachus, *Manual of Harmonics*, 65.

[7] Nicomachus, *Manual of Harmonics*, 66.

[8] Guy Murchie, *Music of the Spheres: The Material Universe–From Atom to Quasar, Simply Explained* (New York: Dover, 1967), II: 383-384.

[9] Nicomachus, *Manual of Harmonics*, 77.

[10] Ibid., Basic chart, my annotations.

[11] Ferguson, *Music of Pythagoras,* 107; an Aristotelian concept.

[12] Rudolf Steiner, *The Inner Nature of Music and the Experience of Tone* (Spring Valley, NY: Anthroposophic Press, 1983), 48, 56-57.

[13] Nicomachus, *Manual of Harmonics*, 77.

[14] Ferguson, *Music of Pythagoras*, 65.

[15] James, *Music of the Spheres*, 31.

[16] Ferguson, *Music of Pythagoras*, 65.

[17] Boethius, "From the *De institutione musica*," in *Source Readings in Music History: Antiquity and the Middle Ages,* ed. Oliver Strunk, 79-86; further referred to by Jocelyn Godwin in *Harmonies of Heaven and Earth* (Rochester, VT: Inner Traditions, 1987), 30.

[18] Godwin, *Harmonies of Heaven*, 29.

[19] Edouard Schuré, *The Great Initiates* (West Nyack, NY: St. George Books, 1961), 307.

[20] Godwin, *Harmonies of Heaven*, 190-192. Descriptions of the Pythagorean table were inspired by Dr. Godwin's explanation.

[21] Ibid., 190.

[22] Murchie, *Music of the Spheres*, II: 598.
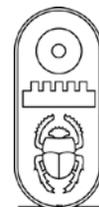
The Neopythagoreans at the Porta Maggiore in Rome

Lisa Spencer, M.A.O.M., S.R.C.

*I*n the early twentieth century Roman crews were excavating for a new railway station when they came across a small vaulted basilica, about fifty feet underground. Notwithstanding its diminutive size (thirty by thirty-six feet), the find was extraordinary. Built sometime between the first century BCE and the first century CE, its walls are adorned with stucco bas-reliefs depicting mythological and mystery school themes, including those connected with the Neopythagoreans. It appears to have been a meeting place and perhaps an initiatory chamber for these Mysteries.[1] The following article introduces readers to the significance of this archaeological record of the Pythagorean Tradition.

Discovery of the Basilica

In 1915, a discovery was made outside the gates of the Porta Maggiore on the Via Praenestina in Rome while a railroad line was being built to Naples. Approximately fifty feet below this new railroad was a white stucco room measuring thirty by thirty-six feet revealing various mythological scenes and mystery practices. Tom Mueller writes, "Handsome mosaic floors, three aisles, and a semicircular apse give it the look of a church, but stucco friezes on the walls show Orpheus leading Eurydice back from Hades, Heracles rescuing Hesione from the sea monster, and other scenes of mythological deliverance."[2]

Archaeologists dated this structure to around the first century CE; however, the floor plan was not at all laid out like the traditional Roman temples but was similar to the early Christian temples with a nave and two aisles separated by pillar-supported arches set in three parallel sections. Pierre Berloquin summarizes: "It is obvious that the construction was carried out as secretly as possible by a group intent on remaining unnoticed both during and after the building of the temple. The masons first dug shafts for the walls and the roof and filled them with concrete. Only after the concrete had set did they dig out the earth inside the church beneath the concrete roof; up to that point the earth had played the role of the scaffolding. Finally, they decorated the interior with white stucco."[3]

Samuel Ball Platner sums up the importance of this find for architectural history:

"The recent discovery of the underground basilica just outside the Porta Maggiore has somewhat modified the views
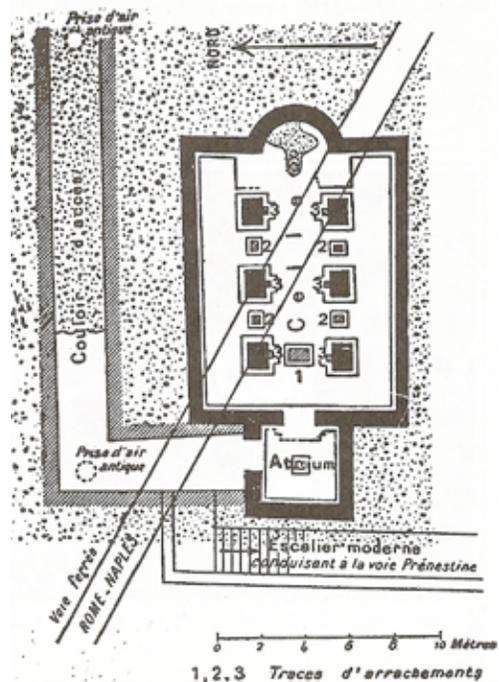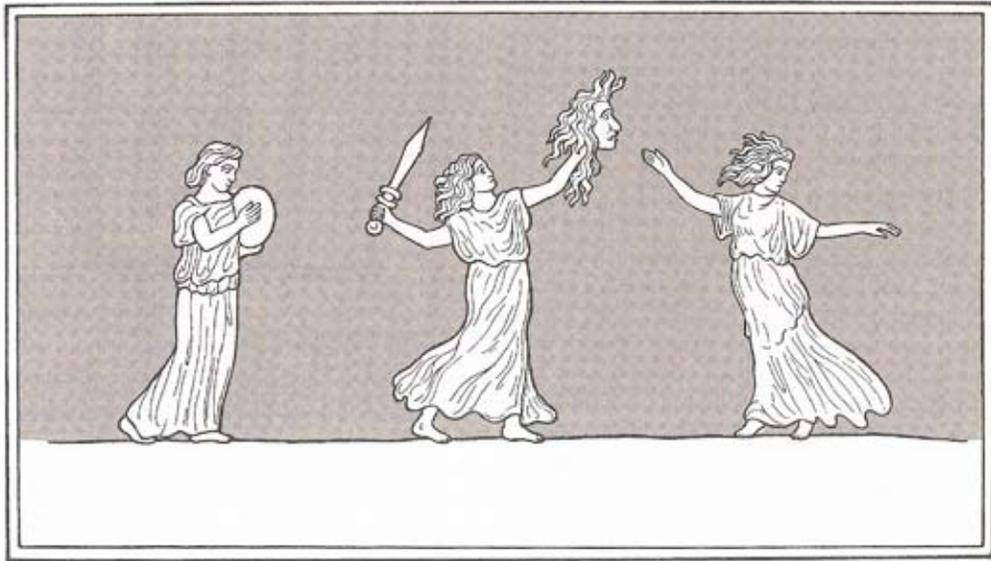

Diagram of the Neopythagorean Basilica, underneath the Rome-Naples rail line.

Richard Majka, F.R.C., *Maenads with the Head of Pentheus, Who Refused to Worship Dionysus*, after a bas-relief in the Neopythagorean Basilica. Neophytes would learn the dangers of *hubris* from this lesson.

previously held. Here we have a building, undoubtedly pagan, belonging to the first century after Christ, which already shows, fully developed, the plan of the Christian basilica with a nave and two aisles, separated by pillars supporting arches…. This basilica is not mentioned in classical literature, and was quite unexpectedly discovered in 1915. It was reached by a long subterranean passage, with two lightshafts (which have now been closed up, a new approach having been constructed from the Via Praenestina), which led into a square vestibule with a larger shaft. (It was the earth falling into this shaft—which lay right under the Naples railway line—which led to the discovery of the basilica.)

"The vestibule was decorated with painted stucco; and from it a window over the entrance door threw scanty light into the basilica itself, which was decorated entirely with reliefs in white stucco. The subjects are very varied, and have given rise to much discussion. The basilica can be inferred from them to have served for the meetings of a Neopythagorean sect which believed in a future life, as they can all be referred to the adventures of the soul in its passage towards the otherworld, the scene in the apse showing the actual plunge into the purifying flood.

The worship was obviously secret: and the building was probably constructed in such a way as to excite as little attention as possible, the piers having been made by excavating pits, which were then filled with concrete. The vaults and arches were supported until the concrete had set on the solid earth (not on scaffolding) which accounts for their irregularity: and it was only afterwards that the earth was cleared out from beneath."[4]

In examining the many icons and bas-reliefs that decorated the small basilica, the strong Pythagorean influence was clear. According to scholars, one of the important icons found in the basilica was the *Medusa* heads that were found on the wall and one at the entrance. Medusa means "sovereign female wisdom," and was imported into Greece from Libya. The Medusa, ever watchful, "welcomes souls onto their new path."[5] The basilica appears to have been sealed up and rubble used to fill the space. However, the rubble that was found dated from the first century CE and also from the sixteenth or seventeenth centuries. Was it reopened and then again resealed with new rubble?

Through inspection it was discovered that the room was not looted since the frescos were intact and the furniture had
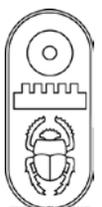
been removed. Also, if there had been looters, chances are they would not have refilled the building and sealed it. Scholars believe the time frame of the first closure to have been during the reign of the Emperor Claudius, 41 to 54 CE. The second closure during the sixteenth or seventeenth centuries also places its secret use at an important time: that of the release of the Rosicrucian Manifestos. Today, the basilica is still mostly intact, but closed to the public. Restoration of the site is difficult due to the location and cost. According to Pierre Berloquin, "Today, the basilica is rarely mentioned in guidebooks and visits are difficult to arrange."[6]

The Neopythagoreans

Cicero's comrade, Nigidius Figulus (died 45 BCE), made an attempt to revive Pythagorean doctrines; however the Neopythagorean movement began in earnest in the mid-first century CE due to the efforts of Apollonius of Tyana and Moderatus of Gades. This Greco-Alexandrian school of philosophy focused on the Pythagorean rules of life and religious conduct which included vegetarianism, tolerance, mathematics, and metaphysics.

"There has been much discussion as to whether the Pythagorean literature which was widely published at the time in Alexandria was the original work of first-century writers or merely reproductions of and commentaries on the older Pythagorean writings. Other important Neopythagoreans include the mathematician Nicomachus of Gerasa, who wrote about the mystical properties of numbers. In the second century, Numenius of Apamea sought to fuse additional elements of Platonism into Neopythagoreanism, prefiguring the rise of Neoplatonism."[7]

Apollonius of Tyana, the sage and miracle worker, believed that he was the reincarnation of Pythagoras. Philostratus (c.170-c.245 CE) wrote the longest and most important work on the life of Apollonius. Philostratus wrote:

"Apollonius was born in the year 4 BCE, the acknowledged year of the birth of Christ. His birth, like his conception, was miraculous. Just before his nativity, his mother was walking in a meadow, where she lay down on the grass and went to sleep. Some wild swans, at the end of a long flight, approached her and by their cries and the beating of their wings, awakened her so suddenly that her child was born before its time. The swans, apparently, had foreseen and marked by their presence the fact that on that day was to be born a being whose soul would be as white as their own plumage and who, like them, would be a glorious wanderer."[8]

At the age of fourteen, Apollonius went to Tarsus to finish his education. It was during this time that he recognized that there were two paths: one to pleasure and love, and the other to philosophy and wisdom. For Apollonius, the choice to philosophy and wisdom was an easy one. Apollonius also "refused to touch anything that had animal life in it, on the grounds that it densified the mind and rendered it impure. He considered that the only pure form of food was what the earth produced—fruits and vegetables. He also abstained from wine, for though it was made from fruit, it rendered turbid the ether in the soul, and destroyed the composure of the mind."[9]

"Legend has it that an Indian magician made him seven rings representing the seven planets and presented them to Apollonius who wore a different one each day. It is said this enabled him to maintain his youthful vigor well into old age. He is reputed to have live to one hundred."[10]

Moderatus of Gades lived during the same period as Apollonius of Tyana. "Almost nothing is known about the life of Moderatus. It seems that he taught in Rome for at least part of his career and that he wrote several important works. Chief among those is his *Pythagorikai Scholai* (Lectures on Pythagoreanism). In this work, which

seems to be one of the most comprehensive written examples of Pythagorean thought, Moderatus shows that many important philosophical ideas traditionally associated with other philosophers were in fact the creation of Pythagoras.

"Moderatus was adamant in his belief that Plato and his followers were merely
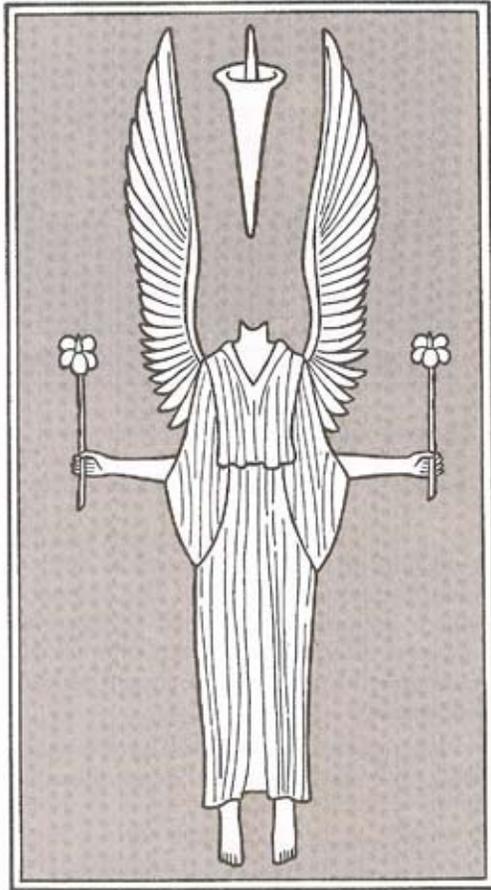
Richard Majka F.R.C., *The Psyche in Transformation*, after an image in the Neopythagorean Basilica representing the recognition of the Divine within the human, and also recalling the myth of Eros (Cupid) and Psyche, which is the basis of the fairy tale *Beauty and the Beast*.

followers of Pythagoras, a belief that has gained increasing acceptance, as more becomes known about both figures. This work by Moderatus was—and remains—a vitally important work for determining the thought of the Pythagoreans, and in separating it from the thought of other Greek

philosophers. In putting to paper the ideas born from Pythagoras, and more importantly, in separating them from later philosophers and philosophic schools, Moderatus gives us important insight into the actual makeup of the original Pythagorean movement, in addition to helping to define that of the Neopythagorean."[11]

While some scholars previously held the view that Neopythagoreanism was only a revival of Pythagorean doctrine, and not in direct continuity with the original, this is no longer tenable given twentieth- and twenty-first-century researches:

"…when we turn to the actual evidence it becomes clear that—at least as far back as the early fourth century BCE—Pythagorean circles tended to be very small, sometimes no larger than a single household; and certainly they were not the sort of arrangements likely to advertise themselves in any archaeological remains. Preference for this kind of social arrangement is easy to understand. With the dispersion of the Pythagoreans which evidently occurred in the mid-fifth century [BCE] as a direct consequence of the dramatic attacks and oppression they suffered in southern Italy, it was inevitable that what communities had existed until then would become fragmented and, to some extent at least, go underground.

"As a result, any account of subsequent history which allows for the transmission of Pythagorean ideas from generation to generation on a modest, even one-to-one, basis must be taken seriously—all the more so because we know that this method of transmission dates back to the classical period of Pythagoreanism. The view held by Cumont and others that, far from dying out, Pythagoreanism continued to lead a more or less 'underground' existence in southern Italy under the Romans makes perfect sense on this basis; and, what is more, it has been strikingly corroborated in the meantime by recent archaeological finds."[12]
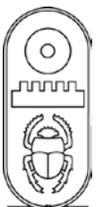
Neopythagorean Teachings and Initiation

Many of the teachings and practices of the Pythagorean and Neopythagorean schools are quite similar to Orphism, with which they were often connected. The immortality of the soul is a primary tenet, and purification of one's soul is a primary purpose of all of these mystery schools. This would be carried out by ethical living, and in particular for the Pythagorean movements, the study of mathematics and music. Many of these doctrines and practices were incorporated into the writings of Plato, which then became a point of dissemination to later generations.

Initiations in the Underground Basilica

As to the initiations that apparently took place in the underground basilica, these might have followed the four-fold Pythagorean path explained by Édouarde Schuré.[13] Before entering the First Degree or "Novitiate" the candidates were subjected to a period of testing and observation, which included athletics and interaction with others. Laughter and a good sense of humor were highly valued. Then one night, a "few months afterwards came decisive tests in imitation of Egyptian initiation, though greatly modified and adapted to the Greek nature, whose sensitiveness had not submitted to the mortal terrors of the crypts of Memphis and Thebes. The Pythagorean aspirant was made to spend the night in a cavern, in the outskirts of the town, alleged to be haunted by various apparitions and monsters. Those who had not sufficient strength to endure the terrible impressions of solitude and night, who refused to enter, or made their escape before the morning, were deemed too weak for initiation and rejected."[14]

Finally, a moral test was given. The candidates were placed in cells with a mathematical or geometric symbol of which they must intuit the meaning. They had twelve hours to solve the puzzle, and nothing but bread and water for nourishment. They would then be brought into an assembly where they would be mocked, and their answers ridiculed. Only those who were able to retain their equanimity and continue to seek wisdom with good humor were judged worthy.[15]

Following admission into the school, the initiatory path continued in four stages:

The First Degree – Preparation (Neophytes)

"Then only began the novitiate called the *preparation* (paraskeia), which lasted at least two years, and might be prolonged to five. The novices, or *listeners* (akousikoi), during the lessons they received, were subjected to the rule of absolute silence. They had no right either to offer any objection to their masters or to discuss the teaching they were absorbing. This latter they were to receive with respect and to meditate upon at length. To impress this rule in the mind of the new listeners, they were shown the statue of a woman, enveloped in a long veil, her finger raised to her mouth, *The Muse of Silence*."[16]

The Second Degree – Numbers – Theogony

"It was a happy day, 'a day of gold,' as the ancients said, when Pythagoras received
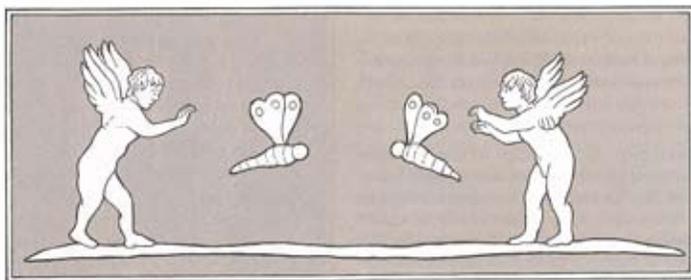
Richard Majka F.R.C., *Cupids with Butterflies*, after the image in the Neopythagorean Basilica. It symbolically represents Divinity revealed within the human soul through the power of Eros (Love).

the novices into his dwelling and solemnly welcomed them into the rank of his disciples. First of all they entered into direct and connected relations with the master; they came into the inner court of his dwelling reserved for his faithful followers. Hence the name of *esoteric* (those from within) in opposition to that of *exoteric* (those from without). The real initiation now began.

these principles, they had now to descend the heights of the Absolute and plunge into the depths of nature, there to lay hold of the divine thought in the formation of things and the evolution of the soul through the worlds. Esoteric cosmogony and psychology touched the greatest mysteries of life as well as dangerous and jealously guarded secrets of the occult arts and sciences.

> Legend has it that an Indian magician made him seven rings representing the seven planets and presented them to Apollonius who wore a different one each day. It is said this enabled him to maintain his youthful vigor well into old age.

This revelation consisted of a complete, rational exposition of occult doctrine, from its principles as contained in the mysterious science of numbers to the final consequences of universal evolution, the destiny and end of divine Psyche, the human soul.

"This science of numbers was known under different names in the temples of Egypt and Asia. As it afforded a key to the whole doctrine, it was carefully concealed from the people. The figures and letters, the geometric forms and human representations, which served as signs in this algebra of the occult world, were understood by none but the initiate."[17]

The Third Degree – Perfection: Cosmogony and Psychology – The Evolution of the Soul

"The disciples had received the principles of science from their master. This first initiation had dispelled the dense scales of matter which covered the eyes of their spirits. Tearing away the shining veil of mythology, it had removed them from the visible world to cast them blindly into boundless space and plunge them into the sun of Intelligence, whence Truth beams forth over the three worlds. The science of numbers, however, was nothing but the beginning of the great initiation. Armed with

"For this reason Pythagoras loved to give these lessons, when the profane light of day had disappeared, at night by the seaside, on the terraces of the Temple of Ceres, before the gentle murmur of the Ionian Sea with its melodious cadence, and beneath the distant phosphorescence of the starry kosmos; or else in the crypts of the sanctuary where a gentle steady light was given by Egyptian lamps of naphtha. Female initiates were present at these night meetings. At times, priests or priestesses from Delphi or Eleusis came to confirm the master's teachings by relating their experiences or through the lucid words of clairvoyant sleep.

"The material and the spiritual evolution of the world are two inverse movements, though parallel and concordant along the whole scale of being. The one can be explained only by the other, and, considered together, they explain the world."[18]

The Fourth Degree – Epiphany: The Adept (Mathematicians)

"With Pythagoras we have now reached the summit of initiation in ancient times. From these heights the earth appears drowned in shadow, like a dying star. Sidereal perspectives open out—and the vision from on high, the epiphany of the universe, is
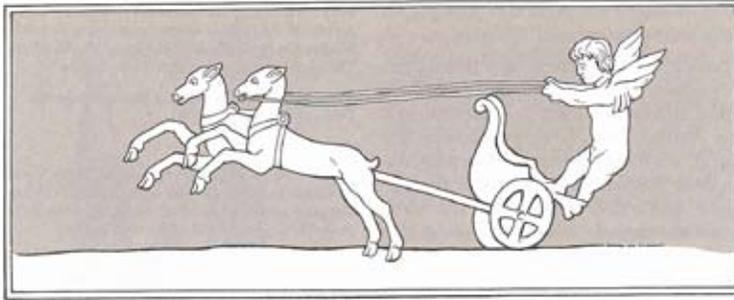
Richard Majka, F.R.C., *Eros and the Chariot*, after an image in the Neopythagorean Basilica, reminiscent of Plato's description of the soul as a properly guided chariot in the *Phaedo*.

unfolded before one's wondering gaze in its entirety. The object of his instruction, however, was not our absorption in contemplation or ecstasy. The master had brought his disciples into the unmeasurable regions of the Kosmos, plunging them into the abyss of the invisible. After this terrifying journey, the true initiates were to return to earth better, stronger, and more prepared for the trials of life.

"The initiation of the intelligence was to be followed by that of the will, the most difficult of all. The disciples had now to become imbued with truth in the very depths of their beings, to put it into practice in everyday life. To attain to this ideal, one must, according to Pythagoras, unite three kinds of perfection: the realization of truth in intelligence, of virtue in soul, and of purity in body."[19]

It is easy to visualize, hundreds of years after Pythagoras, similar initiations taking place in the intimate basilica at the Porta Maggiore. It is reasonable to assume that these would have been conducted by small groups of initiates and candidates, and one is reminded of the way that the sublime teachings of Martinism were handed down from one initiate to another—often within families—from Louis Claude de Saint-Martin to Papus and Augustin Chaboseau. This is the method that has often conveyed the primordial tradition through the many tributaries of the Rosicrucian Path.

The Pythagorean Heritage Continues

Pythagoras's influence extended to Plato's school during the second half of the fourth century BCE, from which source it then reached the Middle Ages and Renaissance. As we have seen, there is a direct connection with Orphism, and with the Essenes:

"It connects the teaching of Plato with the doctrines of Neoplatonism and brings it into line with the later Stoicism and with the ascetic system of the Essenes. A comparison between the Essenes and the Neopythagoreans shows a parallel so striking as to warrant the theory that the Essenes were profoundly influenced by Neopythagoreanism. Lastly, Neopythagoreanism furnished Neoplatonism with the weapons with which pagan philosophy made its last stand against Christianity."[20]

Vitruvius lived in the first century CE and was an architect whose eye for beauty in architecture was based on the works of Pythagoras. He emphasized ideal proportions and used geometry and the "golden mean" to create his art. He created "The Ten Books on Architecture." This would later prove an inspiration for Leonardo da Vinci, whose *Vitruvian Man* demonstrates these proportions in the microcosm of the human person.

Fibonacci, or Leonard of Pisa, was born about 1182 CE. (Fibonacci was actually the shortened version for *filius Bonacci*, meaning "the son of Bonaccio.") Fibonacci was a Franciscan Monk who loved numbers and in 1202 wrote a book called *Liber Abbaci* (The Book of Calculations) describing the use of the decimal system using the modern Arabic-origin system of ten digits that we use today. According to Pierre Berloquin he "extended the Pythagorean universe."

Another group that embraced the Pythagorean teachings was the Knights Templar. They led their lives following many of the same rules laid down by Pythagoras. "They built monasteries and chapels in a style of architecture that also transmitted the geometric heritage of the Pythagoreans."[21] As Peter Kingsley demonstrates elsewhere in this Digest issue, the tradition was also transmitted through Muslim scholarship and Sufism.[22]

Dr. Kingsley's description of what was remarkable about the Pythagorean approach also resonates strongly with the Rosicrucian approach today, and highlights the continuity with this tradition. While discussing the influences on Parmenides and Zeno, he describes the ancient Pythagoreans:
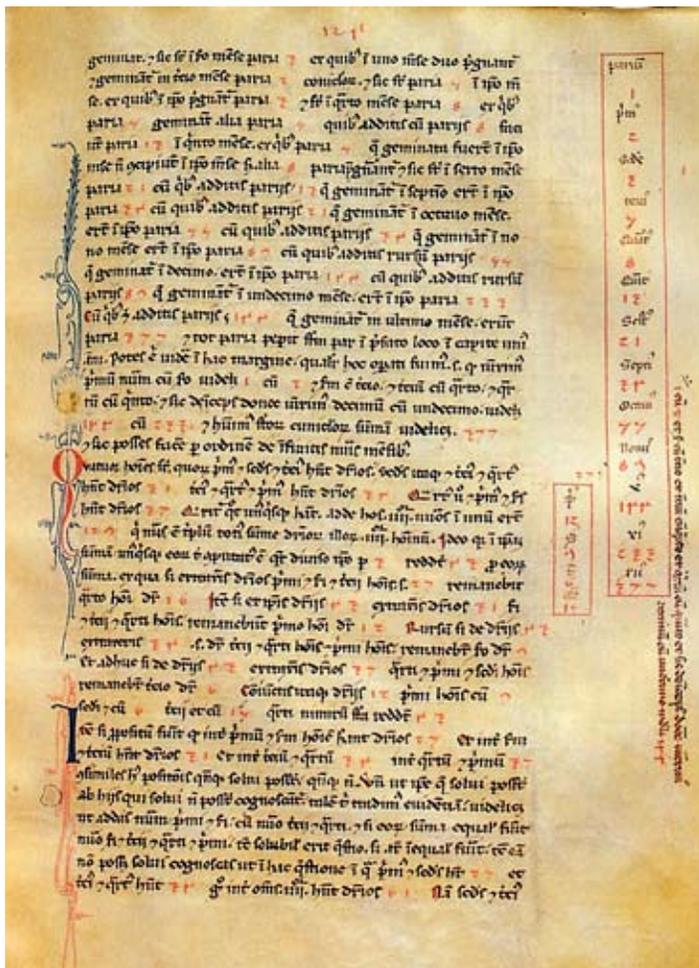

Leonardo da Pisa (Fibonacci), *Liber Abbaci*, Codice Magliabechiano Manuscript, Florence, National Library.

"Another comparison was also waiting to be made. But this one was even more obvious; and it brings everything much nearer back to home.

"There's a certain group of people that ancient writers used to say Parmeneides and Zeno had the closest of connections with. Guessing which group that was shouldn't be too hard: it was the Pythagoreans in southern Italy. In fact, both of them were quite often referred to as Pythagoreans themselves.
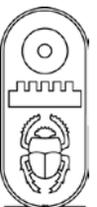
"Nowadays it's normal not to want to take these connections seriously. Parmeneides and Zeno were such creative, original writers; and the notion of belonging to a group or system, especially a mystical group like the Pythagoreans, seems so incompatible with anything original or creative.

"And yet that's to miss one crucial point. Originally, Pythagoreans weren't so concerned with fixed ideas or doctrines as they were with something quite different: something that didn't just tolerate creativity and originality but encouraged them, nurtured them, guided people to their source. This is why the Pythagorean tradition managed to stay so elusive—why it was so open-ended, blending with other traditions, defying our modern ideas of orthodoxy or self-definition.

"The evidence is still there to show how highly valued individuality and creative freedom once were in Pythagorean circles. That can sound such a paradox to us; we're so used to thinking of religious groups or sects as made up of brainwashed, mindless men and women. But as a matter of fact this is one of the least paradoxical

things about Pythagoreanism. The problem is simply a problem of understanding. Originality and creativity have come to be imagined in such superficial terms, and the cult of the individual has developed into such an effective form of brainwashing, that it's not easy any longer even to conceive of anything else."[23]

The task, then as now, is not so much to learn truths from others; rather, it is to facilitate access to the source of all Truth, the inexhaustible font of all that is. To be truly original is to be in union with the Origin of all.[24]

Today we still live many of Pythagoras's teachings. His wisdom touches us through music, mathematics, art, science, and religion. The melodies of his philosophy flow through the ages, and resonate harmoniously in the Rosicrucian tradition today.

ENDNOTES

[1] For further studies on this fascinating find, please see Jerome Carcopino, *La Basilique Pythagoricienne de la Porte Majeure* (Paris: L'Artisan du livre, 1926); Salvatore Aurigemma, *La Basilica Sotteranea Neopitagorica di Porta Maggiore in Roma* (Rome: Instituto poligrafico dello Stato, Libreria dello Stato, 1961); Paul McKendrick, *The Mute Stones Speak,* 2nd ed. (New York: Norton, 1983).

[2] "Underground Rome," by Tom Mueller http://www.theatlantic.com/issues/97apr/rome.htm.

[3] Pierre Berloquin, *Hidden Codes and Grand Designs*, (New York: Sterling Publishing Co., Inc., 2008), 55.

[4] Samuel Ball Platner (as completed and revised by Thomas Ashby), *A Topographical Dictionary of Ancient Rome* (London: Oxford University Press, 1929), 71-72. Available at http://penelope.uchicago.edu/Thayer/E/Gazetteer/Places/Europe/Italy/Lazio/Roma/Rome/_Texts/PLATOP*/basilicae.html.

[5] Berloquin, *Hidden Codes*, 55.

[6] Ibid., 58.

[7] "Neopythagoreanism," *Encyclopaedia Britannica*, 11th ed., republished in http://en.wikipedia.org/wiki/Neo-Pythagoreanism.

[8] http://www.apollonius.net/bernard4e.html.

[9] http://www.apollonius.net/bernard4e.html.

[10] http://www.themystica.com/mystica/articles/a/apollonius_of_tyana.html.

[11] "Key Notes in Neopythagoreanism," http://students.roanoke.edu/groups/relg211/johnson/KeyFigures.html.

[12] Peter Kingsley, *Ancient Philosophy, Mystery and Magic* (Oxford, UK: Clarendon Press, 1995), 322-323. (ed. note: brackets added)

[13] Édouard Schuré, "Pythagoras and the Delphic Mysteries," in *The Great Initiates* (London: William Rider & Son, Ltd., 1913), 63-161. Schuré's sources for his summary are works on the life of Pythagoras by Iamblichus, Porphyry, and Diogenes Laertius. These may be found in this updated edition: Kenneth Sylvan Guthrie, *The Pythagorean Sourcebook and Library* (Grand Rapids, MI: Phanes Press, 1987), 57-122; 123-136; 141-158.

[14] Schuré, *Pythagoras*, 72.

[15] Ibid., 72-74.

[16] Ibid., 74.

[17] Ibid., 83-84.

[18] Ibid., 99-100.

[19] Ibid., 138-39.

[20] http://www.1911encyclopedia.org/Neopythagoreanism.

[21] Berloquin, *Hidden Codes*, 85.

[22] Peter Kingsley, "Paths of the Ancient Sages: A Pythagorean History" *Rosicrucian Digest*, vol. 87, no. 1 (2009), 2-9. See also: Kingsley, "From Empedocles to the Sufis: 'The Pythagorean Leaven,'" *Ancient Philosophy*, 359-370; and Kingsley, "Empedocles and the Ismā'īlīs," *Ancient Philosophy*, 395-396.

[23] Peter Kingsley, *In the Dark Places of Wisdom* (Inverness, CA: Golden Sufi Center, 1999), 153-154.

[24] See Cynthia Bourgeault, *The Wisdom Way of Knowing* (San Francisco: Jossey-Bass, 2003), 86-88.

Choose rather to be strong of soul than strong of body.—Pythagoras
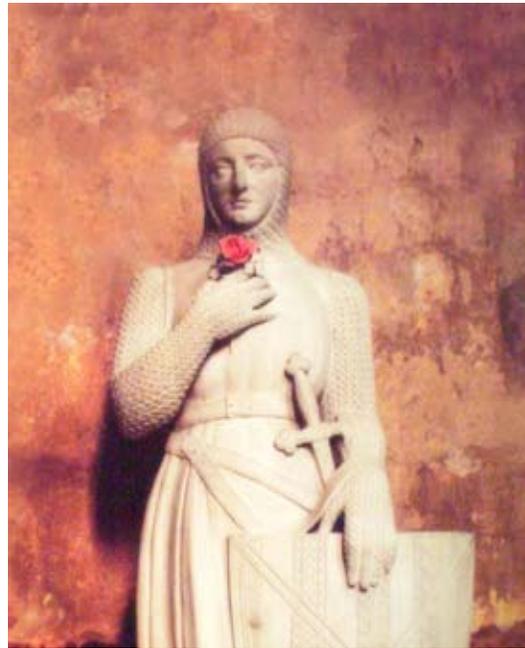
Silence: Inner Learning through the Power of Silence

Jeanne Guesdon, S.R.C.
Former Grand Master of AMORC France

From the *Rosicrucian Digest,*
December 1978, page 17.

Knight with the Rose, Château d'Omonville. Photo from the Rosicrucian Archives.

*S*ilence, one of the most difficult things to achieve in our world today, was an important key to the Pythagorean Path, and to all of Mysticism. Former Grand Master Guesdon reminds us of its importance across the ages.

Before he would initiate a neophyte into the mysteries of his teachings, the philosopher Pythagoras would subject the candidate to various ordeals which were designed to strengthen the initiate's character and which would allow Pythagoras to judge him or her. Thus newcomers amid the sages of Crotona listened but never asked questions. For months on end, they were subjected to the discipline of silence, so that when they were finally allowed to speak again they would do so only with circumspection and respect. They had learned inwardly, through personal experience, that silence is an almost divine power—the mother of all virtues.

Alas, why are we not still today under the genial authority of Pythagoras? The main trouble with today's world is the lack of silence. Not only is contemporary society literally poisoned by the tumult of machines (including talking ones), but also—and especially—it is saturated with loud and empty words. It is a question of who will speak the loudest, who will make the most statements, who will tell his or her story with the most trifling details.

How correct was Kierkegaard, the great Scandinavian thinker, when he wrote: "The world in its present state is sick! If I were a doctor and was asked for advice, I would answer: 'Be silent!' "

Yes, true Rosicrucians can be recognized by their oral temperance, among other virtues. They speak only sparingly, and the words they speak are rich in meaning. They practice the following advice from a Sufi teacher: "If the word you are going to speak is not more beautiful than silence, then do not say it!"

When we apply for initiation, we must remain silent not only toward others but toward ourselves also. Let us understand this well. It is in silence that the Cosmic, the Divine, communicates with us. In order for us to hear God's advice, to receive intuitive flashes, we must know how to silence the profane voice within. The Hebrew Scriptures teach this symbolically in the First Book of
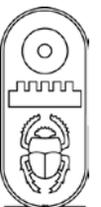
Kings (19:11-12), where the prophet Elijah is shown taking refuge in the desert and waiting for a message from God:

> "And he said, Go forth and stand upon the mount before the Lord. And behold, the Lord passed by, and a great and strong wind rent the mountains, and brake in pieces the rocks before the Lord; but the Lord was not in the wind; and after the wind, an earthquake; but the Lord was not in the earthquake:

> "And after the earthquake a fire; but the Lord was not in the fire: and after the fire a still small voice."

Great truths are taught only through silence.

It is then that the Divine appeared to Elijah. In his famous treatise entitled *The Conference of Birds,* the mystic Attar expresses the same truth in a different way. "As long as they walked, they talked; but when they arrived, all talk ceased. There was neither guide nor traveler; even the road had ceased to exist."

One of the greatest French mystics, Louis Claude de Saint-Martin, deserved to be named "the Unknown Silent One" by his disciples. More than anyone else, he exalted the virtue of silence. He wrote, "Great truths are taught only through silence." Better yet, he made this remark which unfortunately applies so well to our times: "Is there a greater proof of human weakness than the multiplicity of our words?"

It is very true that silence is a real test to the one who, through habit or tendency, does not know how to observe it. Tradition relates that the ancients had made a divinity out of silence; male in Greece, where it was named *Harpocrates*, and female in Rome, where

it was called *Tacita*—well named since it is derived from the Latin *tacere*, which means, "to be silent." This demonstrates to what extent our ancestors worshiped this virtue; also, that the Romans did not consider gossip as a foible of the fair sex.

As explained in this message, the discipline of silence is a power; it allows us to maintain within a vital influx that useless words waste away. Before you speak, try to evaluate if what you intend to say is worthwhile; if it can do some good and *especially* if it is not going to cause any harm. You will notice that the effort you exerted in repressing a useless word causes a reaction within, a struggle against temptation. Each victory shall give you new power. That is why it is wise to follow the Sufi's advice, and if what you are about to say is not more beautiful than silence, then abstain from speaking.

Meditate upon this message; think about it often. It is hoped that it will help you to ascend one step higher on the ladder of spirituality.

Louis Claude de Saint-Martin
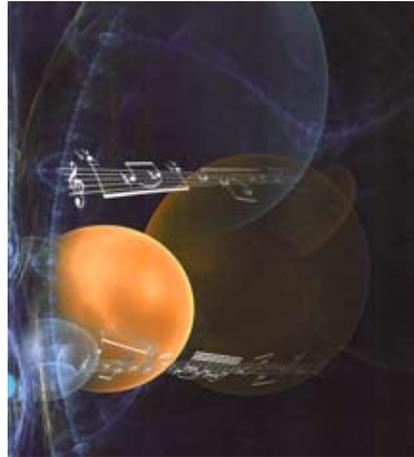
The Music of the Spheres

Frater X

From the *Rosicrucian Forum,* February 1951, page 88.

T he allusive phrase, "the music of the spheres," has intrigued generation after generation. In this response from the Rosicrucian Forum, *the meaning of the phrase is considered in Pythagorean and Rosicrucian terms.*

Much in past centuries has been written in the poetical and mystical sense with respect to the phrase "the music of the spheres." From the scientific point of view it has been scoffed at. However, the very phrase had its origin in scientific speculation by one whom many historians regard as the "father of science." The phrase is attributed to Pythagoras and is related to his discovery that intervals of the scale had a simple numerical relationship.

In the realm of philosophy, Pythagoras, born on the little island of Samos in the Aegean in the sixth century BCE, is an enigmatic figure. His contemporaries were divided in their opinion of him. However, all were influenced by his thought. Some were profuse in their panegyrics of his sagacity. Others, either being sincere in their diverse conceptions, or seeking to belittle him, were unnecessarily bitter in their criticisms. Even today there is a difference of evaluation of him to be noted. Some modern historians, though not acrimonious in their accounts, will, with reluctance, admit his contributions to both science and philosophy. Others conversely herald him as a genius, as one laying down the foundations of science, as well as influencing all European ethics not directly inherited from the East.

Any intelligent student of the life and work of Pythagoras, at least that account which descends to us today, will proclaim

Music of the Spheres, from the Rosicrucian Archives.

him a most illumined individual. He combined within one person the attributes of a mystic, philosopher, and scientist. Rosicrucians are particularly proud to affirm that he was initiated in the mystery schools of Egypt from whence the Rosicrucian Order sprang. As an initiate and *master*, Pythagoras continued the doctrines which he had learned in Egypt in the great initiatory school which he established at Crotona. The Rosicrucian teachings today are rooted in doctrines which he expounded, even though they have been elaborated upon by the great minds of the Order since that time.

His mystical doctrines concerning the nature of the soul and its relation to the body are an integral part of the mystical and occult teachings generally expounded today. His ethics, his rules of behavior, particularly for the attainment of spiritual consciousness, are often taught by teachers of esotericism without a full recognition of their origin. What may be said to be his scientific conceptions and *discoveries* became the basis for most of his ethical, mystical, and philosophical teachings.
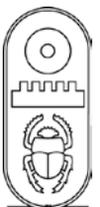
Universe Is Vibratory in Nature

Pythagoras is credited with discovering the mathematical relationship between the various notes in the musical scale. He is said to have measured the lengths of a vibrating string and found that the rate doubled for each octave. It may be that this phenomenon was disclosed to him by the learned Memphite priests of Egypt where he had sojourned and where he was initiated into *the mysteries*. Nevertheless, this knowledge greatly impressed him. He conceived that "things are numbers"—in other words, that each reality, each particular which we discern is vibratory in nature and has its special number or rate of vibrations.

Consequently, if one knows the vibratory rate of the essence or energy of a particular, one will then be able to control its form of expression—just as modern physics is endeavoring to do now. Further, each reality or thing would have a mathematical relationship or place in the great universal scale. Just as there is a harmony between notes in a musical scale, Pythagoras contended that all have their numerical or harmonious relationship in the Cosmos. Here, then, was the first postulation of a universe having an orderly arrangement which made possible an inquiry from an empirical or scientific point of view.

Pythagoras had introduced a theory which in part, insofar as the phenomenon of sound is concerned, was demonstrable. It was a logical premise, therefore, to advance from that into the realm of other natural phenomena.

Robert Fludd, *The Divine Monochord,* from the *History of the Macrocosm and the Microcosm*, Volume 1, 1617.

He advocated the idea that if high and low pitches can be brought together in a perfect attunement, it was natural to suppose that all objects can be similarly treated. The theory of opposites or contraries, such as hot and cold, hard and soft, as the primary cause of change in the forms of things, was an idea prevalent in Pythagoras's time. To him harmony meant a balance or blending of these contraries. For a stable reality or universe there would have to be a blending of opposites in proportions which could be numerically expressed. To Pythagoras, number was "the key to the universe." If we learn the number and proportion of all reality, we know the secret of the universe.

Centuries later, another Rosicrucian, known as John Dalton, who was also eminent in science, introduced a similar idea of fixed proportions of the elements in chemistry.

Pythagoras applied his concept to the relative distances of the sun, moon, and stars. He believed that there was a harmony of relationship between them that could be expressed numerically. It was a theory that was also expounded in much more recent times, but somewhat differently. Pythagoras taught that if the sun, moon, and stars really have vibratory rates corresponding to specific octaves in the universal scale, then each must give off vibrations, just as the strings of the lyre give off sounds. In other words, if planets are vibratory, they must propagate waves which can be discerned, just as when one plucks the strings of a musical instrument.

At this junction of his philosophy, Pythagoras was misunderstood by many, or at least misinterpreted. He did not mean that this *music of the spheres*, this harmony of the planetary bodies in motion, can be audible in the physical sense, just as we hear the voice of another. To his credit, we may say that he meant that if we do not hear this music of the spheres, it is because we are not attuned to their vibratory rate—this "hearing" was not to be conceived in the physical or objective
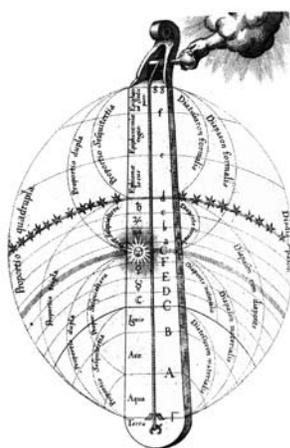
sense. He stated in effect that the human *soul* must be brought into attunement with the higher universal harmony of the cosmic forces before one could hear them. The word, *hear*, must be understood to mean discernment other than auditory perception.

All Is in Continuous Motion

He taught his disciples of Crotona that the greatest happiness is to be found in placing ourselves in harmony—that is, in proper relation to the universal motion of all things. Alcmaeon of Crotona, one of the Pythagoreans, relates, "All divine things, the moon, the sun, the stars, and the whole heavens are in continuous motion." That in itself was a statement which opened the door to a scientific investigation of the unity of all reality. Pythagoras proposed a common property or quality of all things.

To Pythagoras, our thoughts also must be in harmony with natural forces and cosmic principles. Our thoughts can advance or retrogress in the great scale of which everything is a part. Socrates, in the *Phaedo,* probably referring to Pythagoras's ideas, alludes to the harmony of the levels of thought when he says, "Philosophy is the highest music."

Health, too, was regarded as the proper *tuning* of the body. It was affirmed that there must be a consonant of the opposites in the body—that is, such must be of right proportions if health is to be preserved. Disease was held to be "a disproportionate expansion of one or more of the contraries."

Rosicrucians should compare these statements with what we refer to as the *harmonium* of the body in our therapeutic or healing techniques. Though modern-day Rosicrucians go far beyond Pythagoras in the study of the human body and its functions, nevertheless, his idea of harmony of proportion remains with Rosicrucians a basic conception. He said that disease is tyranny. We interpret that to mean that it is a condition
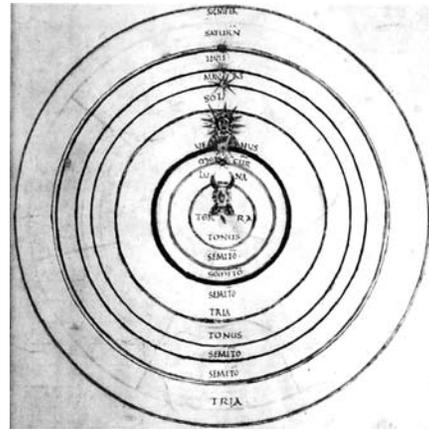

Spherical Conception of the Universe, based on the Ptolemaic system.

which is tyrannical in its domination of all of the body's functions. Health, he said, was "the reign of equal laws." We construe this to mean that health is a concord or agreement of the natural functions of the body.

Mystically, this music of the spheres is the result of a personal attunement with the Cosmic. It is a degree of *Cosmic Consciousness*. The sensations one has of such harmony when in perfect attunement, are not always perceived as an auditory sensation—as something actually heard. They do not always assume the form of exquisite music or a magnificent concord of sound seemingly coming out of the infinite. Such an experience may instead be tactile, as an ecstasy of feeling or a profound peace.

Most certainly, a ringing of the ears, which is distracting and which may occur without any attunement of the consciousness with the infinite, is not to be confused with the mystical harmony to which Pythagoras refers by his term *music of the spheres*. Further, such harmony, when experienced, no matter how realized, whether sound or feeling, is almost always accompanied by great inspiration in the form of mental illumination. The experience should never be construed as a strange sound, having its locus within the ears. Such would most certainly be taking the Pythagorean principle in a wholly literal sense.
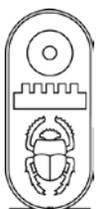
Apollonius of Tyana: History or Fable?

Ben Finger, Jr.

Adapted from the *Rosicrucian Digest*, April 1962, pages 150-153.

One of the most controversial figures in the history of antiquity was Apollonius of Tyana. Long derided by sectarians as a "rival of Christianity," we discover here that he was a leading figure in the emergence of the Neopythagorean movement in the first century CE, and a Magus in his own right, one of our links to the ancient Pythagorean Mysteries.

In the first century of our era, there appeared at Tyana in Cappadocia one of the chief representatives of Neopythagoreanism. Pupil of the Indian Brahmans, he related the Mysteries of Pythagoras to the wisdom of the East and preached to the educated classes of his time a pagan, but sincerely humanitarian, religion.

The Wandering Philosopher, probably Apollonius of Tyana, Second Century CE. Roman Marble copy of a Greek original. The Archaeological Museum of Herakleion. Photo © 2008 by George Groutas/Wikimedia Commons.

The name of this challenging Greek was Apollonius of Tyana. Born an aristocrat, he had given his patrimony to his relatives and traveled about like a poor monk. He brought knowledge of spiritual and moral truth to the courts of princes, for although the masses were seldom satisfied with philosophic subtleties, a philosophic religion appealed to the more intelligent.

Apollonius has been characterized as "a figure combining holiness with civilized behavior, humor with wisdom, fortitude with urbanity, and humaneness under extreme provocation."[1]

Associating with the mighty of his time, this teacher tried to persuade them that "the bad live badly, even if they are prosperous."[2] The true religious life, as he saw it, was to acquire wisdom, and, so far as one can, do good to those who deserve it.

Equating moral with social law, he hated the mere outward show of piety, which characterized the ceremonial religions of his time. Beneath the hypocritical veneer, he saw appalling materialism and bigotry. He had no patience with self-righteousness. He dismissed what we would call today "dogmatic theology" as a subject which transcends the power of humans.

He visited the temples of many creeds, but above all the gods he revered a supreme and unfathomable Intelligence. His contemporaries tried to bribe the gods with bloody sacrifices, but he was content to receive with gratitude only what he really needed and deserved.

Apollonius taught a Yogic communion with the All, a Buddhistic message of the conquest of desire, and a Christ-like doctrine that people should live together
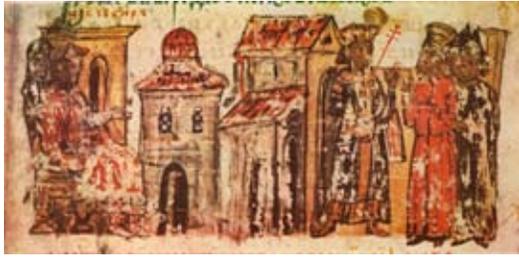
Constantine Manasses, Miniature 28 from his Chronicle, 14th century: Roman Emperors Septimius Severus and Caracalla.

without hatred and help one another. He was acclaimed the son of a god, but he never set himself above his companion Initiates. The superstitious praised or feared him and called him a magician because he manifested extrasensory perception and healed stubborn illnesses; but he never claimed to be able to violate nature's laws.

The evidence for parapsychology has convinced many today who are not supernaturalists. The effectiveness of Apollonius's therapy was the result of his thorough training as a physician and his sympathetic understanding of human character. Kindness and insight made him particularly successful as a psychiatrist, or "exorcist of demons" (to use the language of his age).

Historical Figure or Archetype?

Apollonius of Tyana, like many other ancient figures, is often written off as unhistorical because so many metaphors, mythic concepts, and allegories have been associated with his story. Although there is much plausible material which might very well be factual, it is without supporting evidence in contemporaneous literature.

Those not versed in the symbolism of the Mysteries are tempted to write off the whole biography of Apollonius as fictional: They misread the intent of the Annunciation; his divine origin; his exorcism of demons; his raising of the girl believed to be dead; his conversation with the dead; his power to make himself invisible and to walk through closed doors; his understanding

of all languages without learning them; and his Ascension.

The memoirs of Apollonius, we are told, were written by his disciple, Damis, who accompanied him on his journeys. The original memoirs are no longer extant: They remained suspiciously unnoticed from the first to the third centuries, even though Apollonius had dramatic relationships with the Emperors Nero and Domitian and was prominent in important places.

Early in the third century, the memoirs were reportedly given by the Empress Julia Domna, a patron of the arts, to an urbane literary man named Flavius Philostratus. Her husband, Septimius Severus, adorned his private chapel with busts of Apollonius, Jesus, Jupiter, Orpheus, and Abraham. In that eclectic atmosphere, Julia Domna is said to have persuaded Philostratus to translate the memoirs of Damis, and to use them as his source in writing *The Life of Apollonius of Tyana.* An English translation of this work has been published in two volumes by Harvard University Press.[3]

Some scholars hold that Damis left no memoirs and that Philostratus merely invented a naive religious romance to while away the tedium of Julia Domna. Others concede the existence of the original source material, but feel that it was adorned by Philostratus to provide "a pagan counterblast to the New Testament."[4] Philostratus, certainly, was not inventing idle fiction for the sheer diversion of a sentimental reader when he dramatized the inner verities by way of parables and symbols.

The present writer agrees with those who see an historical individual behind the mythic archetypes. In *The Life of Apollonius* a real character is unmistakably discerned, who must have been described in the first place by a contemporary who knew him intimately. If the mythic elements in his biography parallel the archetypes attached to other Avatars (divine teachers) and apostles, it is
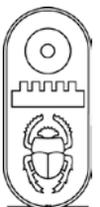
because both have a common source in the Mysteries. There is no reason to postulate borrowing with an ulterior purpose.

Biography Interpreted

In reading Philostratus's *The Life of Apollonius*, we must distinguish between the facts of his external career and the symbols and allegories pertaining to his inner life. The miraculous marvels of antiquity, some impossible in a literal sense, symbolize inner spiritual experience. Vital stages in the life of the Magus correspond to our own trials and triumphs in the ascent to universal consciousness.

The lives of Avatars display significant parallels. Apollonius, Buddha, Pythagoras, Krishna, Chaitanya, all were similar, not only in their visible services to humanity, but especially in their world view, integration of character, pursuit of understanding, struggle with temptation, dedication, and sacrifice. They all brought the same divine Ideal to their followers in the times and places allotted to them.

Just before Apollonius was born, we read, his mother had a vision of the prophetic god, Proteus, who informed her that he would incarnate in the child she would bear. Likewise, Plato's father and mother were reportedly notified by Apollo in a dream that their child would be virgin born. In the mystic inner lives of Adepts and Avatars, all are "divinely begotten" saviors. This symbolizes their "mystic birth" during the Mystery of Initiation: The day of one's real birth is that on which one is "born again" into the world spiritually.

All Avatars have been, in the tradition of Hermetic philosophy, inspired by a way of life based upon Cosmic Consciousness rather than upon the petty strife of narrow, unaware egos. It is not surprising that the legend of "raising the dead" is a stock feature of "the

Birth of Buddha at Lumbini, from a Laotian Temple. Photo © 2006 by Sacca/Wikimedia Commons.

Myth of the Magus."[5] We are always dead to those truths of which we are not aware.

Another traditional part of such Mythic structures is that all Avatars are threatened by an opposing power, the matter-centered world of glamour or illusion. This power is personified in the story of Apollonius by the figures of Nero, Domitian, and his "Judas," Euphrates.

The protagonist must pass through the trials of Initiation. He is tempted, but triumphs over the kingdom of darkness. Accused of sedition and witchcraft, Apollonius was tempted to hide, but he came to Rome *voluntarily* to answer these charges before Domitian.

He was imprisoned and persecuted, but he could not be cowed. This sophisticated Avatar was fortunate enough to die a natural death (surrender of physical personality) at an advanced age, but his followers said he returned to them glorified by spiritual birth, and then ascended into Heaven (the invisible brotherhood of the Masters).

The inner states are symbolized in the various dramatizations of the Mysteries the world over as the degrees and trials of Initiation. Apollonius, it is obvious, derived his name from the Sun god, Apollo, and the allegorical Solar saga identified his trials with the twelve Zodiacal signs. Even his travels, mystically described, personify a journey through the signs.

When both the noumenal and empirical life of the Avatar conform to a universal pattern prefigured in the heavens, the quest for his individual traits of personality and the facts of his objective career require careful study. *The Life of Apollonius* by Philostratus not only outlines one life but also elaborates it to symbolize the entire Hermetic philosophy.

Study and Travels

At the age of fourteen Apollonius of Tyana was educated by Euthydemus in the world's leading university at Tarsus. He then studied in the peaceful neighboring town of Aegæ where he was privileged to dwell and study in the Temple of Asclepius. At sixteen, he embraced the austere rule of the Pythagorean Community, accepting the life of contemplation, self-examination, holiness, sobriety, and service.

He adopted the vegetarian diet to honor the fact of universal kinship. He recognized reincarnation as a reality. For five years, he went through the Pythagorean discipline of silence, which our present age might profitably restore. When this discipline was completed, Philostratus notes, "his words had a ring about them as of the dooms delivered by a sceptered king."[6]

The Seven Liberal Arts: Pythagoras as a symbol for Arithmetic.
14th-15th centuries. Venice, Doge's Palace: capital # 17 in the porch. Photo © 2008 by Giovanni Dall'Orto/ Wikimedia Commons.

The Tyanean seeker gave up his patrimony in order to travel lightly through life, but he traveled far and long. The description of his travels is allegorical. He went through a great part of Asia Minor to find his way to India in order to familiarize himself with the secret doctrines of the Brahmans. *Ex Oriente lux.*

Journey to the East

The journey to India symbolically represents the trials of a neophyte. Even though preternaturally wise, Apollonius had to journey widely to gain the arcane wisdom of the world. On the journey, he stayed for a time in Babylon where he was introduced to the Magi. He found them "wise, but not in all respects."[7] The Chaldean way station on the journey to India represents a definite state of every aspirant's interior development.

At length, Apollonius reached the Court of King Phraotes in India, who recommended him to Iarchus, the oldest of the sages. The simplicity of the Indian palace, contrasting with the pomp of Babylon, was emblematic of a more austere philosophy.

The Indian sages knew self-understanding to be the beginning of philosophy: Iarchus told Apollonius many details about his life and character which could have been known only by intuition. The rites of Initiation were symbolized by the Well of Testing, the Fire of Pardon, the Jar of the Rains, the Jar of the Winds, and the Icons of the Gods, the last symbolizing apotheosis through identification with the eternal Archetypes.

The Indian sages expressed profound doctrines of animism, reincarnation, divination, and therapy of the body and soul. A sound interpretation of his discourses with the Brahmans and their advice, together with his later dialogues with Menippus, yields the whole esoteric catechism.

Return to the West

Apollonius's visit to the Empire of the Sages and his interview with their leader symbolize some of the deepest occult doctrines of our Hermetic heritage. When Apollonius returned from this pilgrimage, the wise respected his wisdom more than ever, and princes honored him as a superior when
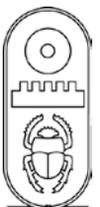
they entertained him at their courts.

At Ephesus, the center of Greco-Roman worship, the Adept reproved the people for their ignorance, idleness, arrogance, and noise. He advised the Smyrneans to take more pride in *worthy people* than in fine architecture. He rebuked the Athenians for their gory gladiatorial shows. The lamia or vampire from whom Apollonius saved young Menippus is a symbol which relates to those concerned only with getting, never with giving.

Ruins of the Temple of Artemis, 6th century BCE. Ephesus. Photo © 2004 by Adam Carr/ Wikimedia Commons.

In Rome, the Adept was arrested on the charge of impiety against Nero, but after questioning was released as a being too powerful to be controlled. His aid to Vindex in the western half of the Empire was indeed a redoubt raised against Nero.

We are told that Apollonius met the funeral procession of an aristocratic virgin, the daughter of a Consul, apparently dead on her wedding day. He touched her; whereupon she arose and returned home. For this, notes the symbolic story, he was expelled from Rome.

Predicting that Vespasian would be the sovereign of Rome, Apollonius gave him this good counsel: "Gold lacks lustre and is mere dross if it be wrung from human tears."[8]

When Apollonius visited an academy of sages near the bank of the Nile, he reminded the Egyptians of their debt to their Indian mentors, and examined ancient institutions in a critical spirit.

Continuing his journeys, the Adept took a firm stand against the cruelty of the Emperor Domitian. His words were reported to that tyrant by his mortal enemy, Euphrates. Apollonius was accused of having participated in an insurrection against Domitian, but he appeared before the tribunal and was acquitted.

Ultimately, he settled in Ephesus and there opened a Pythagorean school. He con-tinued his philosophic teaching there until he died, at about a hundred years of age. He had traveled in Nineveh, Babylon, India, Spain, Africa, Greece, Italy, Egypt, and Persia. At last, having mastered the lore of the Magi, the Brahmans, and the Egyptian ascetics, he settled in Ephesus as a humble teacher.

He was credited with unparalleled thaumaturgical powers, but he claimed nothing beyond the natural magic of sincere seeking and constructive effort. The ancient world long distinguished between the Apollonii (white magicians) and the Pherecydæ (black magicians). Perhaps the "white magic" of holiness and selfless service opened for Apollonius windows of insight which were closed to grosser natures.

ENDNOTES

[1] Eliza Marian Butler, *The Myth of the Magus* (Cambridge, UK; New York: Cambridge University Press, 1993), 55.

[2] Apollonius of Tyana, Epistle 91 "To His Brothers," in Flavius Philostratus, *The Life of Apollonius of Tyana,* trans. F.C. Conybeare, (Cambridge: Harvard University Press, 1912), vol. 2, 479.

[3] Flavius Philostratus, *The Life of Apollonius, 2 vols., trans. F.C. Conybeare* (Cambridge: Harvard University Press, 1912). Available at http://www.sacred-texts.com/cla/aot/laot/index.htm.

[4] Ferdinand Christian Baur, *Apollonius von Tyana und Christus* (Leipzig: Ed. Zeller, 1876).

[5] See the discussion of common archetypes in Butler.

[6] Philostratus, *Life of Apollonius*, chap. 17, trans. Conybeare,1:48-49. Available at http://www.sacred-texts.com/cla/aot/laot/laot04.htm.

[7] Ibid., chap. 26, 1:79.

[8] Apollonius of Tyana, Sermon 5:36, fragment in G.R.S. Mead, *Apollonius of Tyana* (London and Benares: Theosophical Publishing Society, 1901), 139. Available at http://www.sacred-texts.com/cla/aot/aot/aot16.htm.

Reviewing Our Acts

Former Imperator Ralph M. Lewis, F.R.C.

*I*s it advisable to review the acts of the day, or does that unnecessarily cause anxiety and worry? Former Rosicrucian Imperator Ralph M. Lewis offers an answer, based on Pythagorean practices that are equally useful for us today.

The ancient philosopher Pythagoras advised the student-members of his community:

Never fall asleep after going to bed,
Until you have carefully considered
all your actions of the day:

Where have I gone amiss? What have
I done? What have I omitted that I
ought to have done?

Pythagoras's advice has much merit. Most of our daily activities consist of that which is *essential*, *incidental*, and *inconsequential*. It is obvious that the ideal activities should principally consist of the essential, that which is related to some purpose. In connection with each series of essential activities, there will be, of course, certain incidental ones. These latter are more in the nature of preparation. The inconsequential are those acts that appear to have led nowhere. They are thoughtless and, in effect, have produced no worthy end, or have contributed only to our fatigue and irritation. These inconsequential acts waste energy and dissipate time.

Efficiency in living consists of organizing the day or the conscious hours so that they create intentional results. This type of planning need not be considered as dull and academic. By planned living one can designate time for recreation or relaxation or cultural improvement, as well as the necessary functions. When we do not prepare a program—mentally, at least—for each day, the fruits of that day become discouraging.

We seem to be, and perhaps are, both mentally and physically active and yet the essentials, the things needed to be accomplished, whether in work or play, become fewer and fewer. The inconsequentials crowd the hours and finally one has the feeling of frustration. In fact, it is the unplanned day, the one that is not reviewed at night that most often causes anxiety and worry.

No matter how much we try to avoid facing the realities of our day's activities, we will, subjectively at least, have a realization of whether or not that day was worthwhile. If it was not what was expected, a sense of ill ease and restlessness develops that cannot be completely repressed. Worry and anxiety most often do not come from a frank appraisal of our circumstances but from trying to escape them.

In courageously reviewing a day and its problems, we often learn that a difficult situation has possibilities of improvement. This causes encouragement and is certainly a stimulation of morale. Further, an analysis of our affairs often isolates what we consider the distressing factor. It becomes focused in our mind. It has greater perspicuity. We can then more intelligently deal with it.

Duties Left Undone

How often we have heard someone say: "Everything seemed to go wrong today." Actually everything did not. An analysis and review would very often disclose the contributing factors to the day's failure, and all else would be shown to be either incidental or inconsequential. A review at
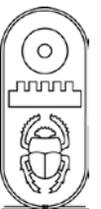
night should more or less follow the sagacious words of Pythagoras. First, ask yourself what you had intended to achieve at the start of that day. If your work is routine at your place of employment, what did you want to accomplish personally in the early morning hours or in the evening at home? Such would constitute your objective. To paraphrase Pythagoras, did you slip? What deeds or duty did you leave undone? Was the personal failure due to a wrong approach or perhaps to the interference of unanticipated events? Did you allow yourself to be diverted by inconsequential interests?

Anything is inconsequential if it is not related to the essential duty. It is true that there may be important interruptions, like the necessity of calling on a sick relative, which cause a postponement of our planned activities. All else, except such vital emergencies, even though they produce results themselves, are minor distractions.

Let us suppose one has, as the plan for a day or evening, the reading of a certain pamphlet containing information that could be well applied to the life of the individual. Such information would be considered essential. It might concern diet, the care of children, mixing a preservative paint, or many other things. At least in the mind of the individual it is essential. On the way to our favorite chair to do this essential reading, we observe that the handle on one of the inner doors of the room has become loose.

F. Gafurio, *Pythagoras Experimenting with the Pitch of Tuned Bells and Water-filled Cups,* in *Theorica Musice,* 1492.

Instead of exercising our will and passing by this distraction, we allow ourselves to undertake the repair. In doing so, perhaps we encounter unexpected difficulties and eventually the whole evening is dissipated in this task. The door is repaired, that is true, and yet the act is inconsequential at the time. It was not necessary that the repair be made that evening and it prevented the individual from achieving the first end in mind.

Three Efforts

It is the honest review of your daily activities that discloses these facts. Your mistakes, your wasted efforts, are glaringly revealed when "you have carefully considered all your actions of the day." Seeking sleep immediately at night provides oblivion. It does not, however, correct the error of our ways. When once again we are conscious, we will know that we have failed, if we did, the day before and that is more irritating than if we had met the circumstances girded with understanding.

When a mistake is realized, it is natural that we should be discouraged. It has an effect on our morale. If, however, the essential that should have been accomplished was sufficiently desired, it will still have considerable stimulus to encourage us to undertake it again. It is only when a mistake is made and we have no idea as to how it came about, that anxiety really develops. A review of what transpired before, at the time and after the mistake, lessens the possibility of its being a mystery. Further, once the nature of a mistake is known, we no longer dwell on it. We more often know that it lies within our province to avoid its happening again.

Trying to escape a review of the day's activities provides uncertainty that wrong things will not occur again. We feel helpless in our ignorance, and we worry as to future success. An intelligent survey of our acts is always to our advantage. Doubt and ignorance are the greatest causes of anxiety and worry, for they destroy self-confidence.

A Pythagorean Bookshelf

Rosicrucian Research Library Staff

The study of Pythagoras, his teachings, and those who have come after him is *a fascinating and engaging study that illumines much of esoteric history.* Fortunately, many resources are in print today. These are *some initial suggested references* for continuing the journey you have begun with this issue of the Rosicrucian Digest.

ANCIENT SOURCES AND STUDIES

Godwin, Joscelyn. *The Harmony of the Spheres: A Sourcebook of the Pythagorean Tradition in Music.* Rochester, VT: Inner Traditions, 1992.

Dr. Godwin, one of the best-known scholars of esotericism today, gives readers a thorough introduction to the way the Pythagorean Tradition has been conveyed in the musical realm.

Guthrie, Kenneth Sylvan. *The Pythagorean Sourcebook and Library: An Anthology of Ancient Writings Which Relate to Pythagoras and Pythagorean Philosophy.* Newburyport, MA: Red Wheel Weiser, 1987.

This convenient new paperback edition of Guthrie's classic by Phanes Press founder David R. Fideler has a wealth of ancient sources, well presented for the modern reader. Anyone interested in Pythagorean studies will need this compendium.

Iamblichus. *The Theology of Arithmetic.* Newburyport, MA: Red Wheel Weiser, 1988.

A classic work of Pythagorean thought by the fourth-century CE Neoplatonist. It is the longest and most comprehensive treatise on number symbolism from the ancient world.

Joost-Gaugier, Christiane L. *Pythagoras and Renaissance Europe: Finding Heaven.* Cambridge; New York: Cambridge University Press, 2009.

This is the first systematic study of Pythagoras and his influence on mathematics, astronomy, philosophy, religion, medicine, music, esotericism, social life, architecture, and art in the late medieval and early modern eras. The author argues that many of the origins of modernity stem from this ancient Pythagorean inspiration.

Kingsley, Peter. *Ancient Philosophy, Mystery, and Magic: Empedocles and the Pythagorean Tradition.* Oxford, UK: Clarendon Press, 1995.

Dr. Kingsley's work is essential to understanding Pythagorean philosophy and spirituality in its ancient context and then in the ways in which it has come down to us today.

Nicomachus of Gerasa. *The Manual of Harmonics.* Grand Rapids, MI: Phanes Press, 1994.

This is the first complete translation of the work of one of the Neopythagorean founders, Nicomachus of Gerasa, with extensive commentary by translator Flora Levin, providing an insight into Pythagorean Harmonics.

UNIVERSITY ACADEMIC WORKS

Kahn, Charles H. *Pythagoras and the Pythagoreans: A Brief History.* Indianapolis, IN: Hackett Publishing, 2001.

This relatively brief volume on Pythagorean history is one of the best from a traditional academic source, by a leading scholar of Greek thought.

Riedweg, Christoph. *Pythagoras: His Life, Teaching, and Influence.* 2nd ed. Ithaca, NY: Cornell University Press, 2008.

This work offers a thorough and exhaustive treatment of Pythagoras in historical, philosophical, and mythic contexts.

ROSICRUCIAN
ORDER

Rosicrucian Park
1342 Naglee Avenue • San Jose, CA 95191
USA