

A NEW MUSICAL MODEL OF THE (Musical) UNIVERSE

What I am about to set out here is a new model of the universe, a musical model. The words, “a new model of the universe,” are borrowed from the title of the tenth chapter of a book by P. D. Ouspensky, which is also titled *A New Model of the Universe*. I chose them because my new musical model finds solutions to the questions set forth by Ouspensky for his model: that is,

1. What form has the world?
2. Is the world a chaos or a system?
3. Did the world come into being accidentally or was it created according to plan?

As he rightly stated, the solution of the first question, the form, determines the possible solution of the other two.

However, even before the first question can be addressed, one must understand what is meant by “form.” What is “form”? What at first seems simple and straightforward soon becomes anything but.

Since the time of the ancient Greeks, the great philosophical issue of form and its corollary matter, and how to describe them has not been resolved. Kant was perhaps the last of the modern philosophers to recognize the problem. The conceptions of an antecedent ideal form and consequent sensible matter “lie at the foundation of all other reflection, so inseparably are they connected with every mode of exercising the understanding.” He likened form to pure order divorced from the senses. “That which in the phenomenon corresponds to the sensation, I term its *matter*,” he said; “that which effects that the content of the phenomenon can be arranged under certain relations, I call its *form*.”

In the Platonic view, the “knowledge of the Forms” constitutes real knowledge. The form is the actual cause of everything existing in the shadow world. Form is the reason for all order and intelligibility, and nothing exists at all without form and structure. Form is first, matter is second. Plato’s “theory of forms” was set forth to solve the two problems of (1) ethics and (2) impermanence).

How, Plato asked, regarding the ethical, can man attach value to that which is merely subjective and relative? To know truth, beauty, justice, and goodness is impossible in man’s ordinary state. In the world of shadows, everything is opinion and conjecture, and everything changes with the fashion of the times. What is just in one age is unjust in another. What is beautiful for one person is ugly for another. How can a man be ethical in such a relative framework? What, in such a world, constitutes truth?

Regarding impermanence, Plato asked, how can a sane and reasoning man expect to find joy or peace in a world where the only constant is change and dissolution? The solution is to detach oneself from the relative and subjective material nature. Matter contains the seeds of its own destruction. Rather than caring about the mutable mortal planetary body and its desires, seek instead to develop the discernment of the immutable realm of form, the understanding of which comes through the higher reasoning mind. Socrates, Plato’s teacher, held that Forms or Ideas are the immutable objects of our highest knowledge. Form is unchanging, not admitting of variation at all, or in any way or at any time, unlike the perishable things of the sensible world.

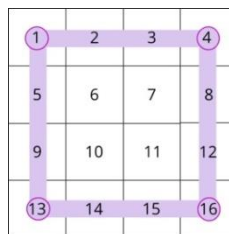
If one consults Gurdjieff on the issue, he also held to the value of non-desires over desires. In the chapter “Form and Sequence” he perhaps is also describing the “theory of forms.” To live in the sensory world of materiality, the world of shadows, one needs utilize only the “Reason-of-knowing.” Comprehending the higher world of form, however, requires the “Reason-of-understanding.” Gurdjieff’s views are in concert with those of Plato’s: the “real world” that man should seek is that of “Form.”

There is only one problem with that. No one seems to know what it means.

Perhaps the word “form” itself can provide some sound clues. The word is similar to four. A four-term system may be viewed variously as, for instance (1) the four classifications of the human body: skin, muscle, fat, bone; (2) the four ages of man: iron, bronze, silver, golden; (3) the four forces of the physicists: gravity, strong, weak, and electromagnetic; (4) the four stages of life: infant, child, adolescent, adult; (5) the four parts of an egg: shell, white, yolk, embryonic chick; (6) the four parts of the carriage: cart, horse, driver, passenger; (7) the four skin colors: red, white, black, yellow; (8) the four family members: mother, son, daughter, father; and last but not least, (9) the four perfect intervals lying at the foundation of the harmonic series: perfect prime, perfect octave, perfect fifth, perfect fourth, the ratios 1:2:3:4.

In ancient Egypt, the creator of the world, Amon-Ra, was called “the Lord of the Four Directions.” The great god Shiva, in ancient India, was “the Four-armed”; and four was the basis for the proportional frames of time called Yugas: kali, dwapara, trita, satya, as well as the basic division of the caste system: priests, soldiers, merchants, and servants. Here, also, is the origin of the swastika, the “Sign of Four” called *quatre de chiffre*, which was the ancient mark used by craft guilds and later perverted by the Nazis; and the tetractys, upon which the Pythagoreans took their sacred oath, calling it the root and source of flowing nature. There is the fundamental *quaternary* in Islam, and the edifice of the “Four-square church” in Christianity.

The words “four-square” finally got my attention. I was imagining the square of 4.



Look at this form. Do you see what I see? Do you notice how, in the right-hand column, the numbers 4, 8, 12, and 16 form *identical intervals* with the numbers across the top row, 1, 2, 3 and 4? In other words, the wall on the right forms a perfect mirror image. Eureka! This square of 4 is a numerical description of Plato’s “Cave Allegory” in Book VII of *The Republic*!

ALLEGORY OF THE CAVE

Anticipating that questions and objections would inevitably arise, and that answering them would pose no easy challenge, Socrates then proceeds to offer the famous allegory in order to better acquaint his pupil, Glaucon (whose name suggests glaucoma, a leading cause of blindness) with the arrangement.



The majority, Socrates (Plato's mouthpiece) explains, lives like cave-dwellers confined to a dark underground world, unaware even that other worlds exist. These cave-dwellers recognize nothing but the gray shadows of statues projected on the wall of the cave. Because the shadows are all they ever see, the cave dwellers think they are real. These stiff-necked cave-men are unable to turn their heads, and can only face the wall, watching the shadow play that keeps them endlessly entertained and fascinated and enslaved. The cave-dwellers, indentured servants all, don't know that they don't know. In Platonic terms, they exist in a state termed "eikasia," that is, the unenlightened state of sensible appearances, sensing the fake shadow images to be reality. This servant class, excluded from the truth, represents the way of the FAKIR.

In the dark cave, the moving shadows are caused by a clever use of a brightly burning fire and some statues, both which are manipulated by a group of people sitting high and behind.¹ Socrates says that a certain prisoner is chosen to be loosed and made to turn around. What this cave-dweller sees causes him to feel strongly that there is a greater reality, that is, the "real" statues. He now begins to "believe," to "have faith," to proselytize about this higher real world. The prisoner has no real understanding of what is going on. All he knows is that he doesn't know. Nevertheless, following the impulses of his feelings, he begins to organize what little he has perceived of this higher reality into a belief system, or religion. (Here one remembers the tale about the imp who is worried that men have discovered truth. The crafty Devil tells the imp, "Don't worry. When men think they discover truth, they immediately begin organizing it"). Yes, indeed. The artisans and craftsmen, organizing into their various cooperatives and guilds, exert great effort to design beautiful artworks that reflect these beliefs. The contemplative art may reflect great skill of workmanship; the finely-crafted models may accurately portray the statues perceived. But there is no truth in it, for the formal knowledge is lacking. Without the knowledge of form, the understanding of the Craft Guild is limited. This stage, "pistis"—meaning belief or faith, without understanding the reason behind such beliefs—is the way of the MONK.

Next, the chosen prisoner is dragged out of the dark cave and into the bright colorful world where, at first, he is blinded by the glare. Once his eyes have adjusted, he begins to focus on objects—people, houses, trees, and so on—and, experiencing a relative taste of freedom, begins to comprehend that the statues inside the cave are merely reflective images, or copies, of the real things that exist outside the

¹ I thought of Michel de Salzmann, sitting high and behind us, directing the sittings at Beauprieau.

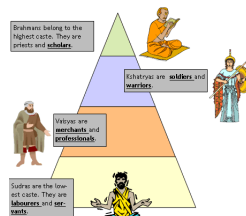
cave. Once blind, now he can see. Having discovered partial truth, he may go off like Don Quixote, flailing about, believing he can save the state of the world. Striving up the ladder of opportunity, he fancies himself a “guru,” having attained to the “reason of knowing.” He may become a “very important person,” a ranking soldier or diplomat or even a commander-in-chief. He has reached the stage of “dianoia,” the bridge that spans from subjective opinions and beliefs to objective knowledge. However, his education, no matter the letters appearing after his name, remains incomplete. He may have the “reason of knowing,” but is still not “knowing the reason.” In spite of years of training, even exceptional super efforts, he is still hardly more than a robotic machine. Although he knows the calculations he knows not what he knows (i.e., what they mean). His practical training, carefully controlled, has led him to the level of “guardian.” The function of guardians is to make sure orders from above are carried out. Serving as the leaders in the Charge of the Light Brigade “Theirs not to make reply; theirs not to reason why; theirs but to do and die. Into the valley of death rode the six hundred.”² The guardians, marching off to war, are the “soldiers of the cross.” They represent the way of the YOGI.

As Socrates states, the higher liberal education is reserved only for the “philosopher-kings,” the real rulers. Those chosen to receive the higher training answer only to the Most High. When the former prisoner lifts his eyes up toward the heavens, he finally realizes that it is the sun which is the cause of all and everything, both within and without. The sun affords the capacity for seeing, and even for the light itself. The sun, Sol, is the Soul, the Sole object of Good. The prisoner has attained the fourth stage termed “noesis,” which means the intuitive understanding of truth. He knows that he knows. This intuitive knowing is termed the “reason of understanding.” This priesthood class, the “upper class” of the social order, represents Wisdom, the FOURTH WAY.

Thus, the four castes may be recognized by their knowledge. What they know or don’t know naturally divides them into two parts, positive and negative. Knowing is positive (+). Not knowing is negative (-). The castes, or classes, divided into “lower” and “upper,” may be arranged in four parts, thus:

Lower: I don’t know that I don’t know	minus/minus (—)	servants/fakirs
I know that I don’t know	plus/minus (+—)	artisans/monks
Upper: I don’t know that I know	minus/plus (-+)	warriors/yogis
I know that I know	plus/plus (++)	priests/kings

Inverting the order, these four social castes can be represented by a pyramid structure.



² Quote from the poem by Alfred Lord Tennyson, The Charge of the Light Brigade, second stanza

It is this same structure that delineates the four Hindu castes: Brahmins, 1; Warriors, 2 and 3; Merchants and Artisans, 4 5 6; and Sudras, 7, 8, 9, 10. In Indian writings, the four castes are traditionally shown as representing the parts of the body of the Hindu god, Lord Shiva. The priests are his mouth, the warriors his arms, the merchants his legs, and the servants his feet. The castes naturally divide at the midpoint, the waist, forming the two higher castes of two classes each. The “upper classes” are represented by the mouth and arms, the two “lower classes” by the legs and feet.

The vast majority of humans exist at the bottom, at the foot of the edifice, in the dark, the “sole” part. At the next level are the merchants and skilled workmen who keep the flame burning according to plan, ensuring the reflecting and perpetuating the values of the culture; in esoteric terms, they are the “prime movers,” which is just another way of describing the “soul.” In the hermetic teachings, the soul is what comes in between and actually has two parts, nous (fine, upper) and logos (coarse, lower). The artisans, the lower part, preserve and reflect the coarser status-quo (logos); the more refined noblemen and soldiers and aristocrats, separated out from the rank-and-file, operate as the higher part of the soul (nous), not only protecting the old, but also actively introducing new ideas to the culture (here one thinks of the Templars). And finally, the scholars and priests at the culmination of the hierarchical organization compose the oligarchy that act in accordance with the true sol, or sun. Having become illumined, knowing the truths of the real world, as the servants of the Most High, they shed their light and heat and life upon the whole structure. Thus there are the three words: sole, soul, and sol. Gurdjieff drew these English homonyms to our attention and hinted of their importance in *Beelzebub’s Tales* (p. 23).

The pyramid structure reminded me of a “teepee,” the dwelling of the plains Indians whose tribal organization also exhibited a similar four-tiered hierarchical social order. The two lower signified the “way of women,” those who bear the young, keep the flame, work at crafts; while the two upper levels described the “way of men,” the path of the braves and warriors and chieftans, the protectors and defenders of the territory, including its tribal rites and rituals.

In ancient Greece, the four-tiers of the societal order were set out in the form of a cosmic mountain. The four-leveled array was known as the sacred tetractys.



One further thing might be mentioned here. In *Views from the Real World*, Gurdjieff makes the analogy of the formatory apparatus with an office “secretary,” an employee with *four separate bosses* who communicate through her. Each boss has his own method of communicating, which must be decoded and then re-coded by the typist. We might look at these four “bosses” as how we receive information from a computer: (1) words (2) mathematical symbols (3) photos (4) music. All four are “retyped” by the “secretary,” translated into computer code, that is, the binary language of 0s and 1s. The old telegraphers knew it as Morse code, which was spelled out in “dots” and “dashes.” Here we arbitrarily

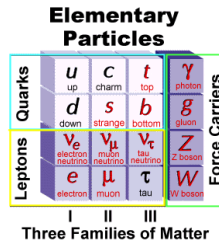
choose to assign “dash” to the 0, and “dot” to the 1. Gurdjieff used Morse code in some of his Movements, for instance “Ya Yu,” and “Mama Papa.”

- 0 0 = long, long (dash, dash)
- 1 0 = short, long (dot, dash)
- 0 1 = long, short (dash, dot)
- 1 1 = short, short (dot, dot)

While not yet resolved, we may intuit that the solution to the first question about the form of the world seems somehow to hinge on the number “four” and the square. What else might be uncovered regarding this construction?

It doesn’t take a rocket scientist to see that this 4 x 4 square resembles the physicists’ Standard Model.

THE STANDARD MODEL



Although no one has actually seen this model, it is usually depicted as a square chart of sixteen boxes, each box representing an elementary particle or force that constitutes the *building blocks* of the universe. For the majority of scientists, the creation of the world begins with the Standard Model. Wait a second! Would not these building blocks of elementary particles, set around in the form of a square, constitute the *form*? Here, surely, was the “world form” mentioned by Ouspensky in his New Model of the Universe!

When this square is “unfolded” and the blocks set out in linear fashion, these *sixteen elementary particles become the 16 elemental tones* of the harmonic series flowing out from the fundamental!

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	C16
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Eureka! This harmonic lineage, when folded up into a square (the 4-square Standard Model) is the “enfolding order,” or what physicist David Bohm had termed the “implicate order”; while the “explicate order” is simply this original harmonic series forming one single lineage, the “unfolded order.” The whole universe is organized and constructed on the basis of the “Harmoniae,” exactly as the ancient Greeks had said.³ These sixteen elementary *harmonic* particles are the building blocks which constitute the “Form of the World.” We have answered, at least in part, Ouspensky’s first question.

³ See, for example, Sextus Empiricus *Adv. Math.*