LaRouche Youth on 'The Crab Nebula and The Complex Domain'

The Labor Day conference of the Schiller Institute and International Caucus of Labor Committees met simultaneously in Reston, Virginia and Burbank, California on Aug. 30-31, for the first-ever "two-coast" videoconference of the LaRouche movement. EIR *published the speeches by Lyndon and Helga LaRouche, and by Indian leader Dr. Chandrajit Yadav, in recent issues. Here, we present one of the highlights of the conference: the Aug. 31 panel on science and creative discovery, by members of the LaRouche Youth Movement from Philadelphia and Los Angeles.*

*The panel took on the conceptual challenges which Lyndon LaRouche threw out in his paper on "Visualizing the Complex Domain" (*EIR, *July 11, 2003), including notably his discussion of the method by which man can uncover the truths that lie behind the "Sensorium" of the world perceived by the senses. The young scientists concentrated on the anomalous growth, radiation, and processes in the Crab Nebula, a scientific great project for the 21st Century; they reviewed both the technological breakthroughs which could make that project possible, and the more important Socratic scientific method necessary: "You must first realize that no human being can know anything, without realizing that sense experience deceives." The speeches have been edited, and some of the graphics have been omitted for space reasons.*

1. Merv Fansler

On the Sensorium

What we're going to start with here, is an introduction to the Sensorium, and what the Sensorium really is. And so, I think the best way to get this started, is to have everyone go through a nice, little, Romantic pedagogical with me. But, it's not like any of these "pedagogicals" that were developed with the Baby Boomers in the '60s, so you don't need to worry about any side-effects, like flashbacks, or pregnancies, or

Merv Fansler leads off the youth panel on creativity and scientific discovery: "How do we really know that there is anything which lies outside our senses?" Seated is Adam Sturman, who spoke on "Extending the Sensorium"—through the breakthroughs in telescope technology for exploring the heavens.

some increased need to consume things.

So, what I'd like you to do, is, everybody just sit still, and look forward. Now, I want you to become aware of what you're actually seeing; go through your vision first, and keep your eyes straight. You can see on the sides of you, without having to turn your eyes, right? So, you have this peripheral vision. Everybody can keep looking forward; don't move. So, that's your visual domain, this is what you can see with your visual.

Second, let's add another sense in here. Let's look at your hearing. Listen to what you're hearing—everything that you're actually hearing. Try to focus both on what you're seeing at the same as what you're hearing. Because you're being presented with two different things, at the same time. You're going to hear some background noises—people coughing, people walking around you; predominantly my voice is what you're going to hear.

So, after this, now we can add in the third and the fourth: We can add in, what you're smelling, what you can taste. Everybody probably just had dinner, so you can taste all the food that you've just eaten, and there's some smell. (This room is not very pungent, so it's not very distinct.)

So, we have all these four senses going on. And, let's add the fifth one, and so, let's see what you can feel. What are you feeling right now? Just focus on all these senses, all these things which you're actually being presented with. So you can feel the clothes on your body. You can feel the pressure of your feet on the floor; the chair pushing on your body. You can feel all these different things: the air going in and out of your lungs.

These are your basic five senses. This is what your presented with. These five senses are separated, but they're together. Everybody can relax now—not that you weren't already relaxing.

And so, this is your immediate Sensorium. This is the "now." This is what you're currently being presented with. And so, what you have is, just all these different feelings that are coming, all these different senses that are coming in. I'm sure the Baby Boomers are very used to this state, because they've been indulging in the "now" for most of their lifetime.

Paradoxes

So where are we going with this? What we have to begin with, is, we have these five different senses; and how are these five senses working together? And how you can think of these five senses, is sort of like a polyphony. If you remember back to the [Bach] Chorale that was sung last night: You had four different voices, and all these different voices were all singing about the same idea, right? But, none of them had the direct idea, of what the idea actually was, but they were "projections," you may say, of an idea onto different voices. And this is what you have with your senses: It's like a projection of something which might lie outside of there. You don't know if there is anything outside of your senses—or, at least, we haven't established that yet. So, you can think of these five senses, as a sort of a polyphonic thing you're being presented with.

And, what you'll find with these five senses, is certain paradoxes that might arise, if you start to play with the things that you're actually being presented with.

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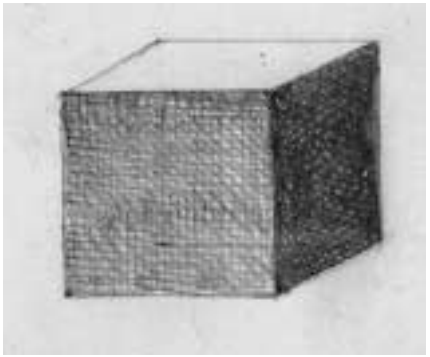

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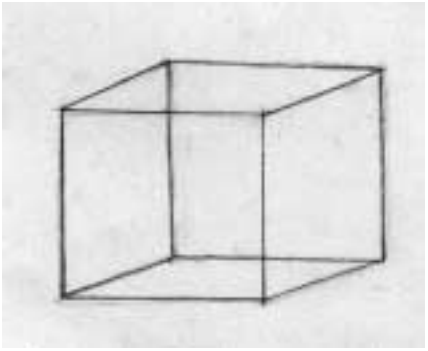

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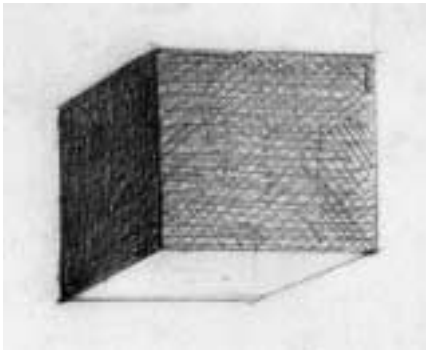

And so, the first thing I wanted to look at is just a cube (**Figure 1.1**). And then a wire-frame of that same cube (**Figure 1.2**). Now, **Figure 1.3** is another cube—and Figure 1.2 is the frame of that cube, also.

So, both of those two cubes—the first one and the third one—are two different things, but this one in the middle has an ambiguity about it, because you don't know whether it's the first cube, or the third cube: It can be both. And so, there's something going on in this visual Sensorium, such that this ambiguity is arising.

So, what I'd like to do now, is to try another example of this, and do it in music. I'm going to play something very quickly on the piano. I'm going to play a melody, and then I'm going to play a key with that melody. [C-D-E-F-D-E-C-F♯]. Now, that last note that I played, has a certain type of sound to it, right?

Okay, now I'm going to play another melody [C′-D′-E′-F′-D′-E′-C′♯F♯]. Now, it has a different sound. It's the same note, right? But, it sounds differently.

And, so you can see, that in that note—what I'm actually playing is an F♯ there—in that one note, you're finding that it's really ambiguous about what it really is. I'm playing the same note, but in respect to what's happening, it's having two different meanings arise in it. And so, that's another example of one of these little paradoxes that are arising in our Sensorium.

What we'll find then, if we continue to explore what we're presented with—if we begin to explore these different things—we'll find a lot of small, little paradoxes like this; but we'll also find some things, that are going to stun us, that we can't really explain.

One of the first things that we're really presented with, and what ancient man was presented with—and this is really where the beginning of modern science came from—was the nighttime sky, and what was happening with the stars; and looking upon this, and being amazed by what we were seeing. What I have is a quote from Schiller "About Man." He says: "The view of the unlimited distance, in incalculable heights, the wide ocean at his feet and the greater ocean above him, snatch his mind away from the narrow sphere of the real and oppressive imprisonment of the physical life. A greater measure of estimation is held before him, by the simple majesty of nature. And, surrounded by its great forms, he no longer endures the small way of his thinking."

FIGURE 1.4

So, what I'd like to do is, work through a little about what's going on in this Sensorium, or what we're presented with in the nighttime sky.

Figure 1.4 shows a picture of the nighttime sky, with some stars, some constellations marked out. If you would look out into the sky, what you'll find is, you'll have around you, you'll have a sort half-sphere. And in this half-sphere, you're going to notice a few things going on: You're going to notice that you have stars there, and there are certain relationships between these stars—you have this idea of a constellation. What happens is, you say, "Okay, I want to map what's going on in these stars. I want to find out what's happening here."

So, if you look up, and you try to measure the stars, you can do so, by taking angles between stars. What I'd like every-

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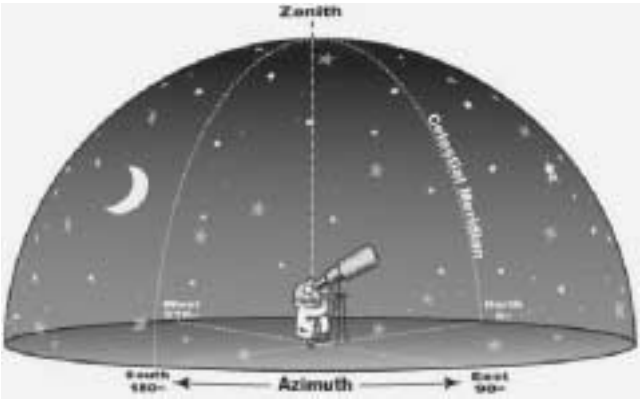

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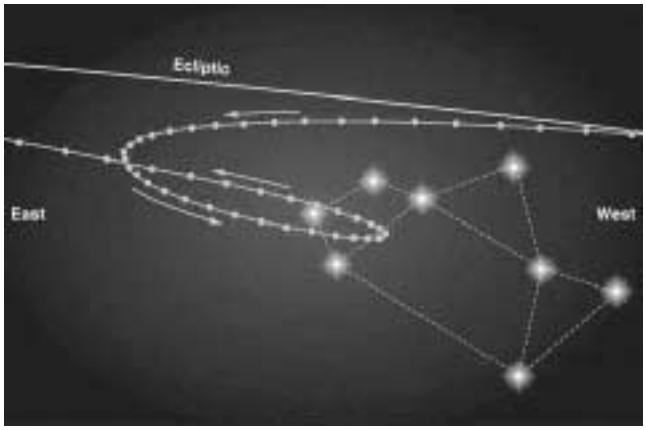


body to do, is just look at the center of this room back here, and then look to the back of the room there. And what I'd like you to do is, then point to the front of the room, here, and then follow the line back to [the back of] the room. (So, everybody's just looking very ridiculous.)

Now, I want everybody to do it again, but look what the other people around you are actually doing. Look how they're doing it. Now, it seems like everybody on this side of the room is saying, "Well, okay: I'm pointing in this direction [toward center-line of room]; I'm going like this." And then, everybody on the other side of the room, is saying, "Well, it's on the other side of my sphere [also toward center-line]!" And so, if everybody says, "Well, I'm the center of the universe," everybody is going to have a different sphere that they're looking at! So, at every point on the Earth, you actually have a different perspective, you have a different "sphere" of what you're going to run into. What you can do, with your own sphere, is, you can measure out these angles, as I was saying before, to find the relationships between the stars (**Figure 1.5**). Like, if you point here, and then follow it back, you have a certain arc-length that I'm going to be tracing with my arm, in my sphere.

All around the Earth, you have a total sphere, right? But, the problem is, how do you reconcile the difference between what the individual person is seeing, when he goes out on one point on the Earth and looks at the stars, sees his own little half-sphere, and the person that goes out on the other side of the Earth, or at a different latitude or a different longitude, and sees another half-sphere? And, so how would you actually construct this celestial sphere, and find the relationships between these stars?

In constructing this sphere, you begin to notice a few things. You'll notice different motions going on in the sky. To begin with, you'll have this background, this mapping on the background, on the inside of the sphere that you're looking from; you're going to notice that this is going to move, slightly, and it's actually going to move, at a rate that it moves around the Earth once a year.

But then, you run into a second motion. You'll see this main motion, where the whole sphere, all the background stars, are going to be rotating around you, in an East-to-West pattern. And then, secondary to that, you're going to find these other stars that just seem to move around on this sphere that you're seeing. These were known in the ancient times as the "Wanderers," which today, we know as planets. And these planets bring some problems into how we assume how the universe works, or how the heavens are actually operating.

We run into the problem that we get some funny things going on in the motion of the planets—particularly Mars (**Figure 1.6**). Mars is going to follow a path on the background of this celestial sphere; it's going to come around, and make a loop. So, how are you going to explain that? What is really occurring, to generate some form like that? What I have next, is a film showing the actual motion of this. It looks like it's actually stopping, almost, and then launching off in different directions.

When confronted with this, the empiricists say, "I can sort of explain this. I know what's going on."

Now, let's look at what Kepler did, using the data from Tycho Brahe. Before, he had this model of what was happening with respect to the Earth (**Figure 1.7**). If you have the Earth in the center, and then you have all these spirals and things going around—this is the pattern that Mars is moving in, with respect to the Earth, in a year. So, this is very complicated, especially when you take into consideration, that most people consider everything moving in the celestial sphere, to be moving in circular orbits, because—well, why not? "Circles are the most perfect thing in the universe, so everything is going to follow a circle."

A few people came up with different models for this: First, is Ptolemy (**Figure 1.8**). Ptolemy said, "Well, the Earth is at the center of the universe." It's like everyone says, "I am the center of the universe. So the rest of the universe must be

FIGURE 1.7

FIGURE 1.8

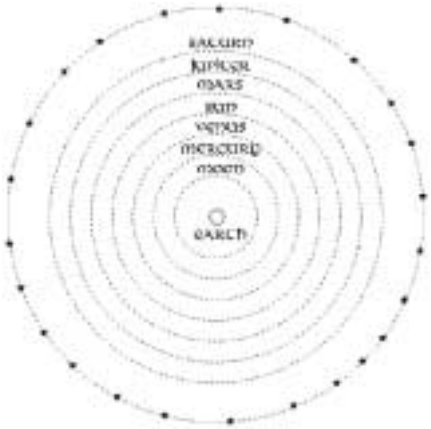


FIGURE 1.9

around me." And he says, "Everything just follows a circular path, around the Earth." Next (**Figure 1.9**) is Copernicus. The Copernicus model says, "Well, okay, the Sun is at the center of the universe, and the Earth goes around the Sun." But, then you had all the religious fanatics say, "Well, this is impossible. The Bible says that this is impossible. So, we're not going to believe you." And it was heresy, to actually believe that this was true.

So then, we have the third one, which is Brahe's. And Brahe's gets a little complicated (**Figure 1.10**). The Earth is still at the center of the universe—he has the Earth out to the side, but it's still the center of the universe, everything is revolving around the Earth. Brahe is just compromising with everyone in the Church, to say, "Well okay, the Earth is still the center of the universe. And the Sun goes around the Earth; but all the other planets go around the Sun, then."

FIGURE 1.10

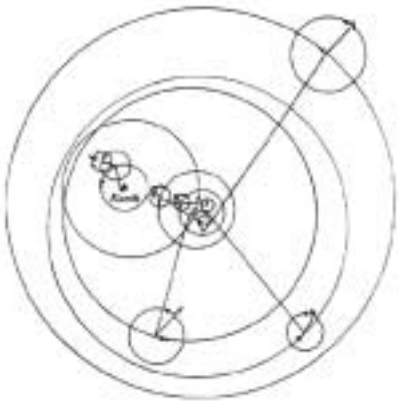
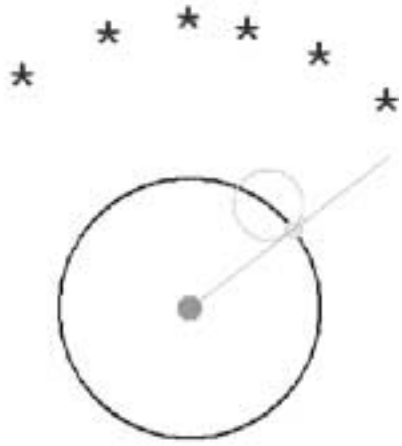


FIGURE 1.11



And, finally, I have one of the models of how Ptolemy actually constructed this (**Figure 1.11**), and how Ptolemy is trying to explain the motion here. The Earth is at the center, and Mars is going around the Earth, on little epicycles. On the backdrop of the stars, the celestial sphere, you would see this retrograde motion of Mars: It moves back and then it moves back again, and then it moves forward. So, this is how Ptolemy's model is supposed to explain this problem.

But what comes up is, that all of these models can *statistically* explain what is going on here. But, can any of them *really* explain what's going on? You're presented with things which are really just approximations, shadows, and you're trying to find out, how do you actually explain these shadows? What is really going on? You're finding different projections of what is really going on, different shadows of things.

And so, what Kepler said, about this motion of Mars, in particular, he said: "The testimony of the ages confirms that the motions of the planets are orbicular. It is an immediate presumption of reason, reflected in experience, that their gyrations are perfect circles. For among figures, it is circles, and among bodies, the heavens, that are considered the most perfect. However, when experience is seen to teach something different to those who pay careful attention, namely, that the planets deviate from simple circular paths, it gives rise to a powerful sense of wonder, which at length, drives men to look into causes. It is just this, from which astronomy arose among men."

And so, I'd like to ask a question then: How do we really know that there is anything which lies outside our senses? And, what I'm presented with, or what is a very good question

to present you with, is this thing back here [indicating the podium banner], that says, "World at a Turning Point." Now, is this a question? How do you know, that it's at a turning point? You can't "see" a turning point. You can't "taste" the turning point. You can't smell it. So, how do you know that it's at a turning point?

I think that this is the challenge that we're presented with.

Thank you.

2. Jason Ross

Two Means Between Two Extremes

We're going to go into, through what means can we peer beyond our senses? How is it that we *can* know, that what we're not seeing is impacting what we do? And, how is it that we, as people here in the LaRouche movement, how are we going to turn around this Dark Age into a Renaissance? How are we going to develop the power and the means to do that?

So, what is a Renaissance? If you speak French, you know that means rebirth, but—what's being reborn? I don't mean fundamentalist Christians. Although, some mystics of a similar ilk, the Synarchists, have ideas of giving birth to fascism (**Figure 2.1**).

Now, we're against single-issue politics, but this is something we definitely should abort. So, let's get rid of these midwives. Let's get rid of them!

So, let's turn to the real mid-wife of the Renaissance: Plato's Socrates, who tells us, in his *Thaeatetus*, that he delivers ideas, not babies. But, how do we deliver ideas from the senses?

We can understand the limitations of sense-perception, by trying to act in it, and finding the problems that we encounter; and we'll situate this with Plato's conception of "power" and of "means." We'll start with the *Meno* dialogue, which contains the famous exercise and demonstration of the doubling of the square. It's here that Plato, using one of Meno's slave boys as a subject, demonstrates, only through asking questions, that the understanding of the correct method for doubling the square, already exists in the boy's mind, as a potential; it merely has to be uncovered, or recollected. So, let's put up the solution to that (**Figure 2.2**).

We've got our original square, the dark square on the bottom left. The first attempt made is to double each side of the square, in the same way that you would double a length, giving us the large exterior square, that's four times as large. But, the doubled square is the crooked square that you see in the middle, which contains four triangles, of which the original square had two.

Let's look at performing this process again (**Figure 2.3**). We've got this action of doubling, that goes from that original square to the doubled square; and then, from that doubled square to a quadrupled square in black.

Now, here's where the idea of a "mean" comes in. The word "mean" has a number of meanings, actually: It means not only a middle, but also a method of effecting a certain result in English, German, French, Russian, Spanish (I imagine), and probably more languages, too. This philological observation indicates that there's this concept of creation and generation, as inherent in any existence. English also uses "mean," in the sense of "meaning." And, these different

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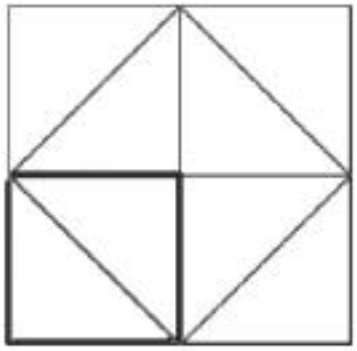
FIGURE 2.2



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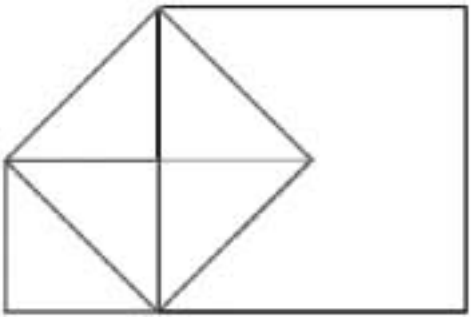


meanings of "mean" show how you can mean things, outside the dictionary meanings of your language.

So, now that you know what I mean, let's investigate what these means are.

The same process that took us from the small square to the doubled square is taking us from the doubled square to the quadrupled square. So, what's this process? It's doubling, but what is the change, in the line that is the side? Now, this can be a difficult question. If we're looking in the domain of the sizes of the one-sided length of the original square, we've got kind of a domain that we can act in to get magnitudes. We can double lengths, we can triple them, all based on an idea of a unity; quadruple; you can cut things into five pieces; add in half again; take out a seventh. Things like that.

So, let's see, based on this kind of scalar action, what the relationship is between the original square and the doubled square—that is this mean, this *means* of doubling. You can think about this—I don't want to use the term—but it's like a fraction, this relationship between the sides of these squares. And so, okay, if you have a fraction, you've got one number in relationship to another.

So, let's investigate. Since numbers are odd or even, let's first think about the large square being odd, on its side. **Figure 2.4** shows blocks. There's a yellow square that's 5×5 on each side, and it's kind of extended into this red square, that's 7×7. So, if this were our scalar relationship of doubling, this large 7-sided square would be twice as big as the yellow. But, how many squares are in a 7×7 square? 49, right? An odd number. That couldn't be double anything. Any odd-number square is odd; it can't be double something else.

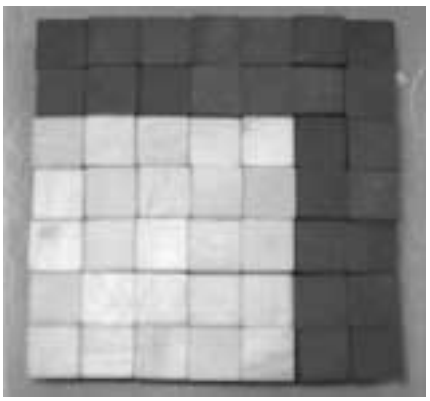
So, scratch that. Let's say that both squares are even on each side (**Figure 2.5**). Now, we learn in math class, if you've got a fraction that's even over even, you could cut both the top and the bottom in half. We'll just look at it physically: This is a relationship of 6 to 8, but it's also completely the same thing as the relationship between 3 and 4. So—it doesn't make much sense to think about both squares being even. One of them is really odd, in some regard to the other.

The large square was an odd. So now, we're left—after [travelling] this road—that the large square must be even, and the small square odd. But, Now, how's that going to work? Because, if the doubled square is even in regards to the small one—meaning each half of the even square is the same surface as the smaller square; but each half of any even square still must be even on one of the sides, so it's even! It's not odd. Neither half of it can be odd.

So, wait. That's all of our choices, though. That's all of our options. This whole domain of making magnitude: Nowhere inside of that, existed this relationship that we're looking for.

So, if you're a mathematician, you've got this drawing of the square, the doubled square, and the quadrupled square. Maybe we'll just make a new symbol (**Figure 2.6**). Hey! Just

FIGURE 2.4



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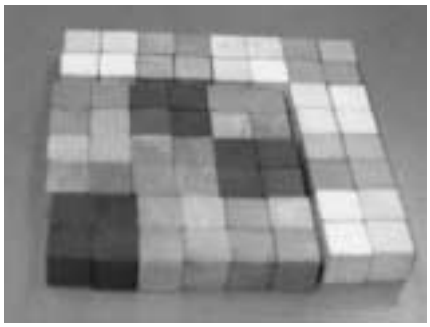

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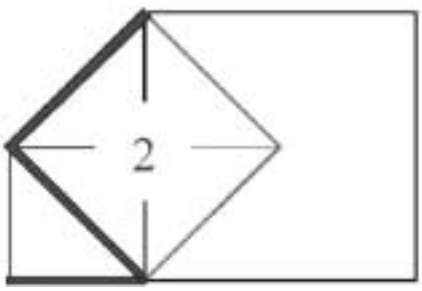


FIGURE 2.7
Doubling of a Square

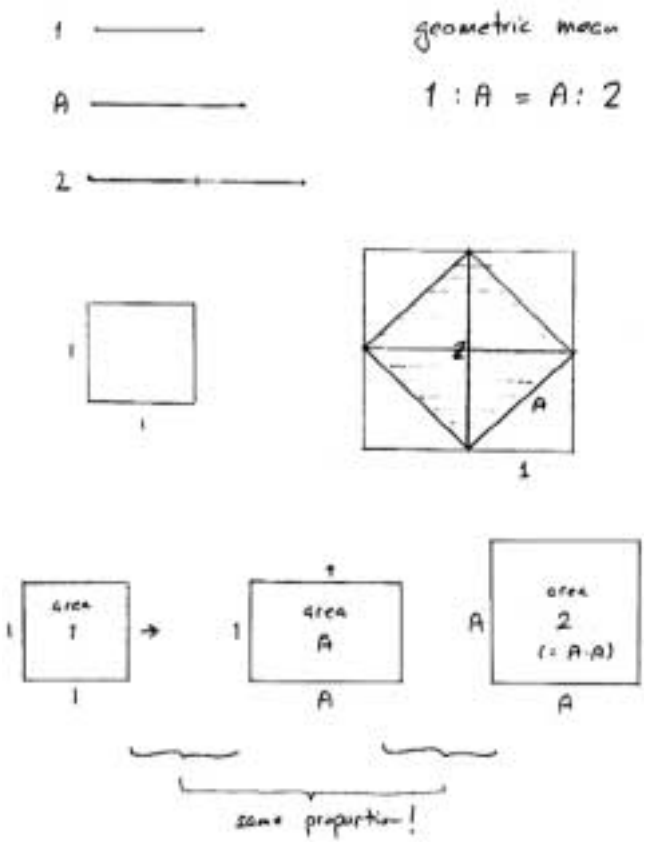
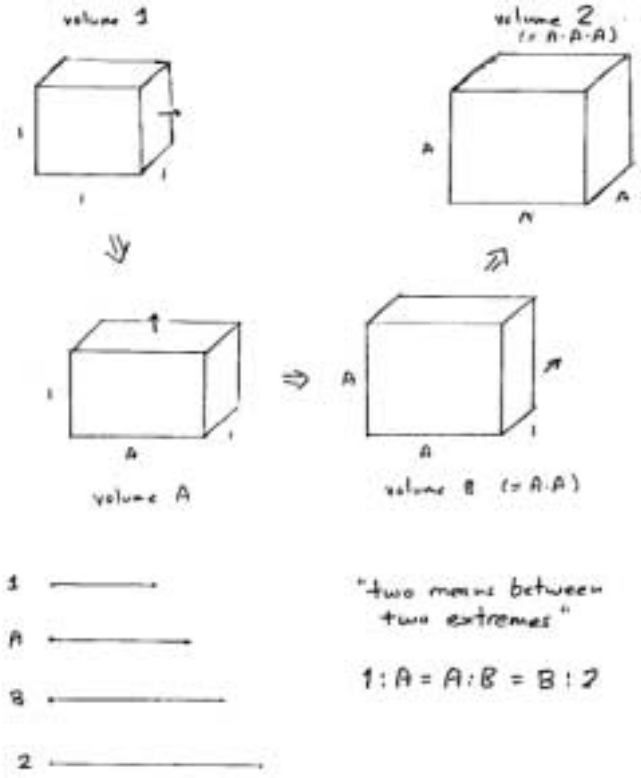


FIGURE 2.8
Doubling of a Cube



bold those lines, and you've got your square root, right? Fine, but now, the $\sqrt{2}$—fine that's just a question. The $\sqrt{2}$ doesn't tell you how big it is, it just tells you it's the "root" or the foundation of a square of 2. And, thinking of that as some sort of real existence is the root of a lot of problems in mathematics. Because it's all meanings of powers and means to make something.

So, just make sure it's hammered in: That this magnitude, this side of the red square, doesn't exist on the number line. If you generate the number line through these simple scalar extensions and contractions.

So our mean doesn't exist in the same domain that the extremes exist in. But, think about it: That's true for any process. How do the extremes appear to you? You sense them: You've got a perception of them. You've got an idea of what is the state of the world, right now? What would I like the state of the world to look like? And you might push and shove on each of these specific properties you're trying to change, but you're going to be completely impotent to change it like that. Like, if you're on a desert island, and you see land over there, you don't see the raft. You've got to know how to make it.

Same with politics. If you look at the political situation, you don't see the Martinists having a meeting. You don't see Warren Buffett meeting with the flabby guy [Schwarzenegger] with the shrunken nuts; you don't see any of these things. You have to really find out, how do you get a crack into this domain, where the generating processes are really occurring?

So, we've got a kind of a peek of this, with the square, with the action of doubling the square. There's this *rotation* involved: going from the base to the diagonal, and then 45 more degrees, to the quadrupled square. And, this is even better illustrated, when we look at actual physical, solid objects. Because, unlike squares, they have a volume. Plato says, in his *Timaeus:* "If the universal frame had been created a surface only and having no depth, a single mean would have sufficed to bind together itself and the other terms; but now, as the world must be solid, and solid bodies are always compacted, not by one mean, but by two. . . ."

Doubling the Cube

So, we'll take the most famous historical example of the specific problem of an absolute necessity for an understanding of means. We'll go to the not-so-far-away, and not-so-long-ago city of Delos, in Greece, which was afflicted by disasters. Plague was ravaging the city; drought was haunting the farm-

ers; unregulated utilities led to power outages across the town; and one of the poorer actors was running for mayor. So, greatly concerned, and not knowing what to do, the leaders of the city decided they would go to their oracle, to ask the gods, "What do we do? Why are we having this plague? What do we do about it?"

And the oracle said, "Tell you what you do: This altar I've got here? I want you to make it twice as big." So, here's what Eratosthenes writes about what happened, then—as reported by Theon of Smyrna: "Their craftsmen fell into great perplexity, in trying to find out how a solid could be made double of another solid. And they went to ask Plato about it. He told that the god had given this oracle, not because he wanted an altar double the size, but because he wished, in setting this task before them, to reproach the Greeks for their neglect of mathematics and their contempt for geometry."

So, setting to work, one of the first things they tried, was doubling the size of each side of the cube. Here's some more Eratosthenes—he says: "The craftsmen doubled each side of the altar, but they seemed to have made a mistake. For when the sides are doubled, the surface becomes four times as great, and the solid eight times. It became a subject of inquiry among geometers, in what manner one might double the given solid, while it remained the same shape. And this problem was called 'the duplication of the cube,' for, given a cube, they sought to double it.

"When all were, for a long time, at a loss, Hippocrates of Chios first conceived that, if two mean proportionals could be found in continued proportion between two straight lines, of which the greater was double the lesser, the cube would be doubled."

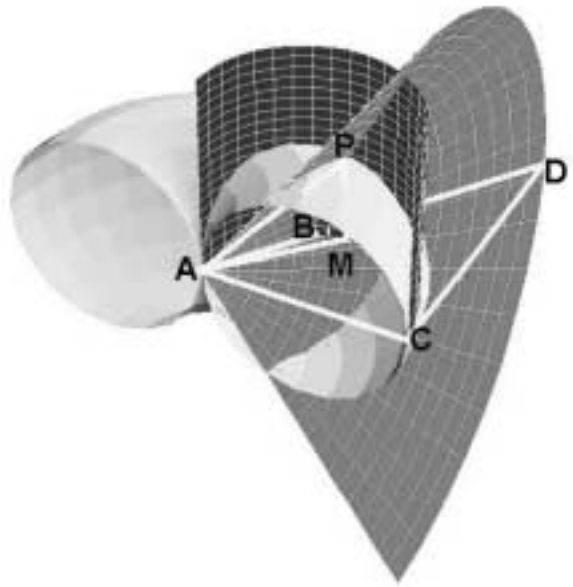
So, actually, think again, what Plato said about this, in terms that, if the universe wants you to make a discovery, it might have to give you a really hard time, to force you to make that discovery. And this is what the people of Delos faced.

Okay, so this idea of finding two means seems, ostensibly, like the problem of doubling the square; but here, we desire two means, instead of just one, between the known extremes.

So, here (**Figure 2.7**), you've got this idea of the mean to double the square; on the bottom of the screen there, you've got the square first being extended along one mode of extension, and then along the other, to get your doubled square. And then (**Figure 2.8**), you've got the cube with the three means, that this magnitude or this relation have done once along one mode of extension; again, along another; and then, finally along the third: You've filled out, and doubled your whole cube.

Sounds simple, but it's not. You can't just draw a diagonal of the cube and get a double—it's over five times as big! Now, you might say, "Why don't you just try it out. Make another one, see if it weighs twice as much. See if it displaces twice as much water, something like that, right?" Well okay, you might get close to it that time, but again, you're completely missing the domain that the answer exists in: the domain of,

FIGURE 2.9
Solution by Archytas



what are the *means* to knowably double this cube, which tells you more about space, than simply making an altar twice as big.

This problem was actually solved not in the domain of the system of extension in which it was posed, but from a higher domain, from the real universe. It was actually figured out by Archytas, the king of a city-state in what's now Italy, who was a collaborator of Plato's. If you haven't seen this before, you might want to imagine some ways of doubling a cube. And then, go ahead and put up the next slide (**Figure 2.9**): Now, you wouldn't just kind of "guess" *that*—pull that out of your hat, and let's see if that doubles the cube. What Archytas has here, is he has half of a cylinder; he's got a circle, that's kind of dancing and spinning around, sweeping out a torus; he's got a line that's circling about, making a cone. And these things are all coming together. Archytas actually uses musical language to describe these things coming together to make a relationship, in the same terms as a musical relationship. It's like a three-voice fugue, hitting at a singularity in the mind of the composer.

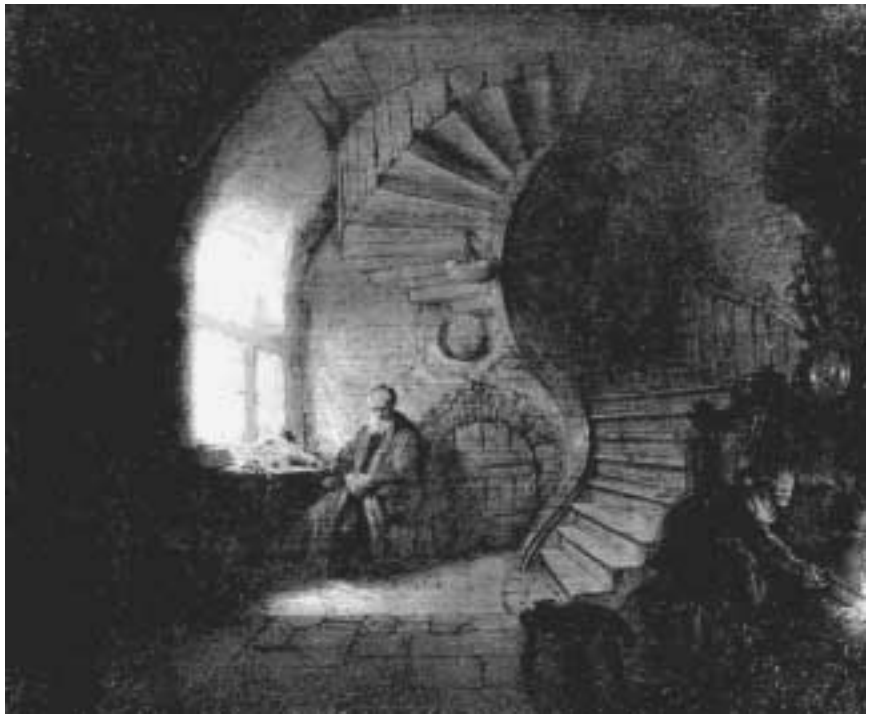
We're not going to go into the details of exactly how this doubles the cube, but there's a couple of things that have to be pointed out about it: That, first of all, this solution lies outside of the domain in which the problem was posed. You've got a cube; you want it twice as big. Where did *that* come from? It lies outside that domain, in the same way that Gauss, in his elaboration of the complex domain, went outside the domain of algebra, when he had to answer a question about algebra. This gets you out of the senses, and into the

invisible, internal relations of the universe; and what we're seeing—this self-elaborating, rotational aspect, even here, which later gets developed by Bernoulli in a different treatment of power.

Now, another meaning of Archytas' finding of the two means, is that, it is itself a mean: a mean between our sensual understanding, and then the idea of the generative domain of powers and means that was living in Archytas' mind. This image of Archytas' is a means to understanding an actual idea, which you can't see.

Now, this generation behind the scenes, so to speak, of this Sensorium, is not performed by extensions in the Sensorium; and, although we can—yes—make a doubled cube with that, this exists only in the mind. It is a thought-object.

FIGURE 2.10
Rembrandt's 'The Philosopher'



The Creative Hypothesis

It's precisely this reasoning process employed by Archytas, that leads us, as a mean, from our senses, to the universe. And, this is taken up and elaborated by Plato, in Book 6 of his *Republic,* in which he introduces the idea of a division of objects of thought: of one being the visible, and the other the intelligible. Which he then further subdivides each of the two, between the more obscure part, and the clearer part. So, for the visible, for example, you have shadows, reflections, hazy images of things; and then you have the objects, of which these images are the likeness.

In the domain of the intelligible, the first, murkier division, is "understanding." Here's how Plato's Socrates described it—he says of it: "For I think you are aware that students of geometry and reckoning, and such subjects, first postulate the odd and the even, and the various figures, and three kinds of angles, and other things akin to these in every branch of science; regard them as known, and treating them as absolute assumptions, do not deign to render any further account of them, to themselves or others, taking it for granted they are obvious to everybody. In this way, understanding does not proceed to a first principle, because of its inability to extricate itself from, and rise above, its assumptions."

So, we interpret our senses, based on our understanding of how we believe the universe to work, help us to make sense of this mess of light and sounds and everything else that Merv is talking about it. But, how do we get above these assumptions? The higher domain is that which reason itself takes hold of by the power of dialectic, treating its assumption, not as absolute beginnings, but literally as hypotheses, underpinnings, footings, and springboards, so to speak.

So, we have images, objects, understanding, and reason.

Then, Glaucon, whom Socrates is speaking with, says this: "I think you call the mental habit of geometers and their like, 'understanding,' and not 'reason'; because you regard 'understanding' as something intermediate between opinion and reason." "Intermediate": Here you have a mean, again. Again, as a thought-object. Understanding is the mean between your senses and actual reason.

So, this where the passion of being human comes in. Understanding is based on principles, that you use to comprehend the real nature of the universe, but you can't have new thoughts of understanding alone. Reason picks up, where the mean of understanding ends; but how?

The act of reason, the hypothesis, takes us directly to our immortality, to the "undiscovered country, from whose bourne no traveller returns" (see **Figure 2.10**). This puzzles the will. There's no formula, or comfort of the senses, or of understanding here. But it's precisely our human passion to "go there," that allows us to live as human beings in a domain unreachable by animals. And without this determined passion, to seek for, and adhere to the truth, we'll be unable to live as humans, and most of us will die as animals. And you, personally, have to develop, and act, on that passion.

Thank you.