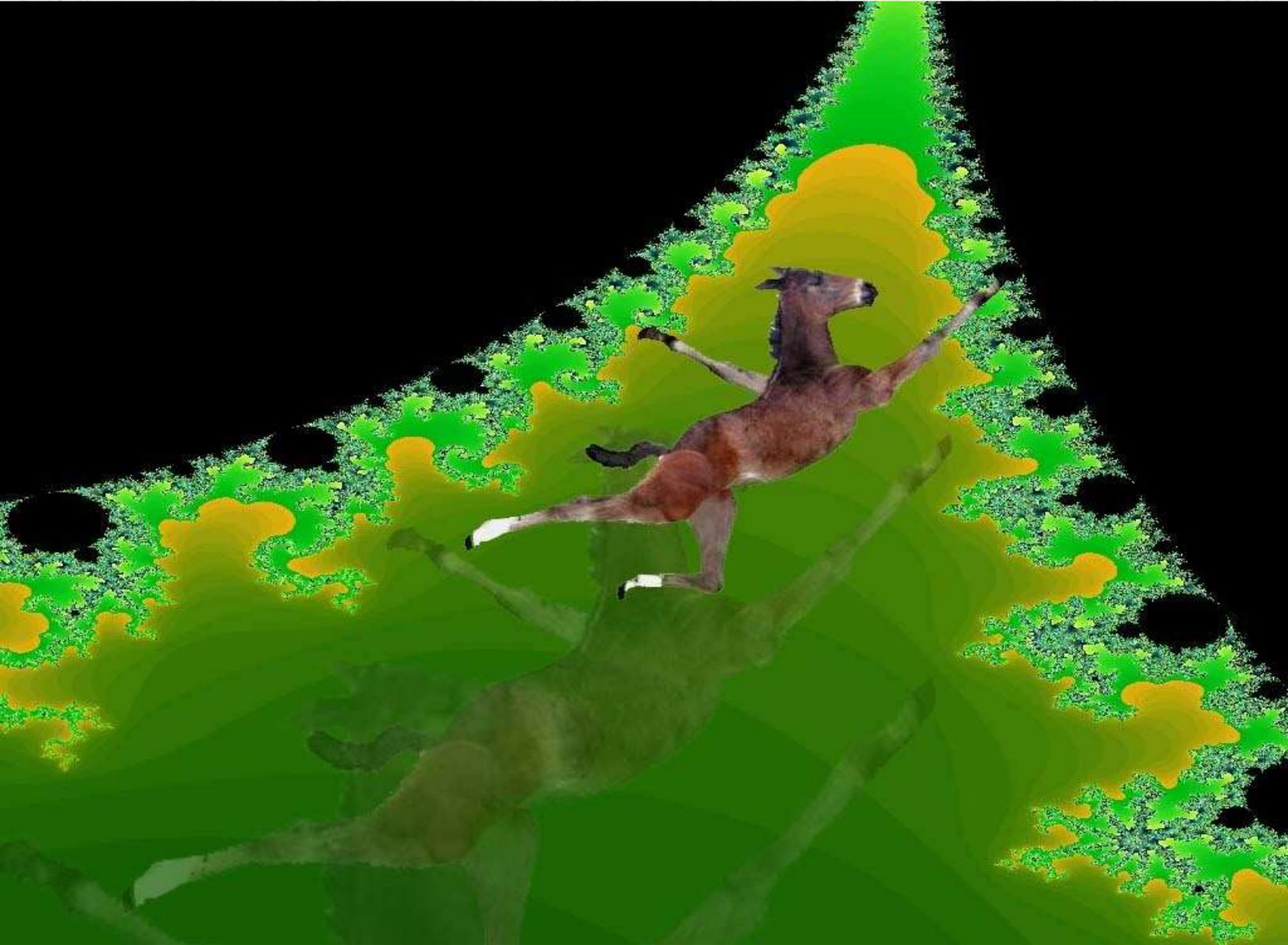


Your guide to joining a

fractal cult

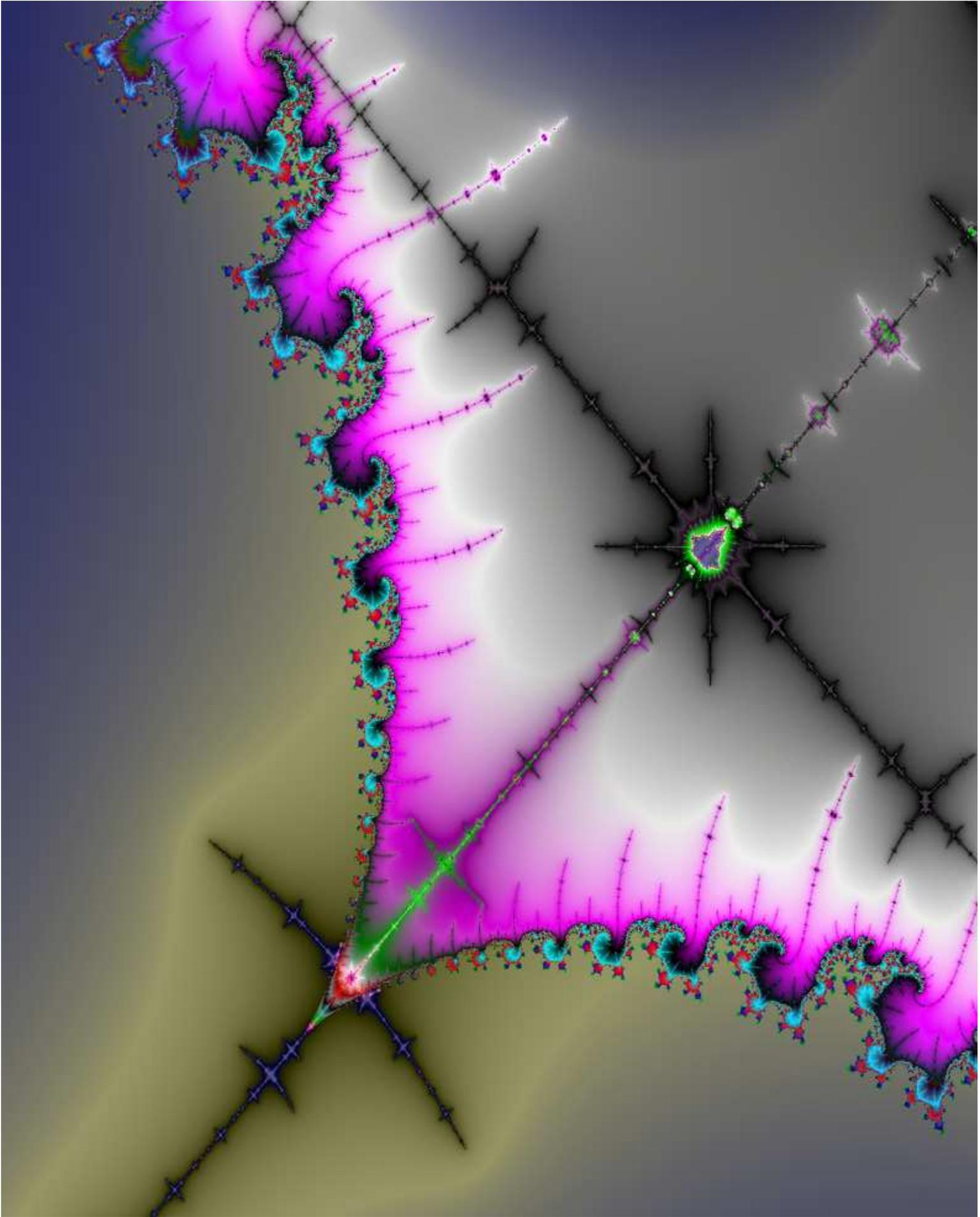


By

Professor Cramulus

KSC, OJC, WOMP, FOOP, ASS

Fractal Cult



Over time, established symbolism, classical revivalism, or other ancient reconstruction traditions seem less and less useful for describing our strange post-modern world. Science, religion, and philosophy have been racing for a good model of the world we live in. We live in a dynamic world of changes and complexity; few symbols are able to capture that.

To that end we propose the **Fractal**. It is a relatively new concept, coined by Benoît Mandelbrot in 1975: "*Many important ... patterns of Nature are either irregular or fragmented to such an extreme degree that ... classical geometry ... is hardly of any help in describing their form. ... I hope to show that it is possible in many cases to remedy this absence of geometric representation by using a family of shapes I propose to call fractals...*" (Mandelbrot, 1977)

At a glance, an image of a fractal set is very complex. One can see a general shape characterized by rough, irregular edges. If we zoom in to examine these mysterious borders, we discover new shapes within them, new truths and nuances that were hidden to us at the lower levels of magnification. And these truths, upon inspection, are similarly muddy and complex. But they are familiar to us! They carry a structural-similarity to their parent shape.

The Fractal is one of the only symbols which does not seek to reduce complexity. Through complexity, many things are hidden from us. But the universe is ultimately knowable because it is recursive, self-descriptive, it features recurring patterns through which we can know both the large and the small.

This is the first teaching of the Fractal Cult.

The universe is infinitely complex, but recursive.

This is why your biological systems are a pretty good description of our society. (Your circulatory system, for example, has a lot in common with both the transportation system and the economy.)

You, Einstein, and Jeffery Dahmer have basically the same problems.

This is why it makes sense to talk about organizations with the same language we use to describe individuals.

The trials you face in day to day life are a synecdoche of the greater spiritual trials you will face during your life.

This is why you can see the truth in clouds.



EXPLORATION

Initiates in the Fractal Cult should download software with which they can explore fractal images. We recommend **Chaos Pro** for the novice and **Apophysis** for the advanced fractalonaut.

We find that the sublime beauty of fractal imagery is the perfect backdrop for contemplation of many of life's problems.

There is a relationship of structural similarity between the big and the small, the internal and the external, the past, the present, and the future. The small, mundane problems one faces on a day to day basis are not isolated from life's greater spiritual trials—they are one and the same.

Fractals remind us that everything we've done or not done, everything we desire or avoid, everything we've been or will one day be, are all equally important parts of the big picture.

TRANSFER OF LEARNING

If you already know how to play the saxophone, it's a lot easier to learn to play the trumpet. If you already speak Spanish, it's easier to learn French. This is called **Transfer of Learning**, the ability to use knowledge of one skill when learning another.

If you're learning similar skills, there's a lot you can transfer. If you already know one programming language, it's much easier to learn others. But your ability to bake a pie does not usually play a role in that learning.

Psychologists have wondered what if there is a way to amplify the amount of transfer that takes place. *Priming* techniques have been somewhat successful - that is, explicitly telling people that they should draw on existing knowledge. This points their attention to the ways that the thing they are learning is similar to the things they already know.

In the Fractal Cult, our thinking is that if *ALL IS ONE* and *AS ABOVE, SO BELOW*, we may be able to transfer skills from very unlikely places.

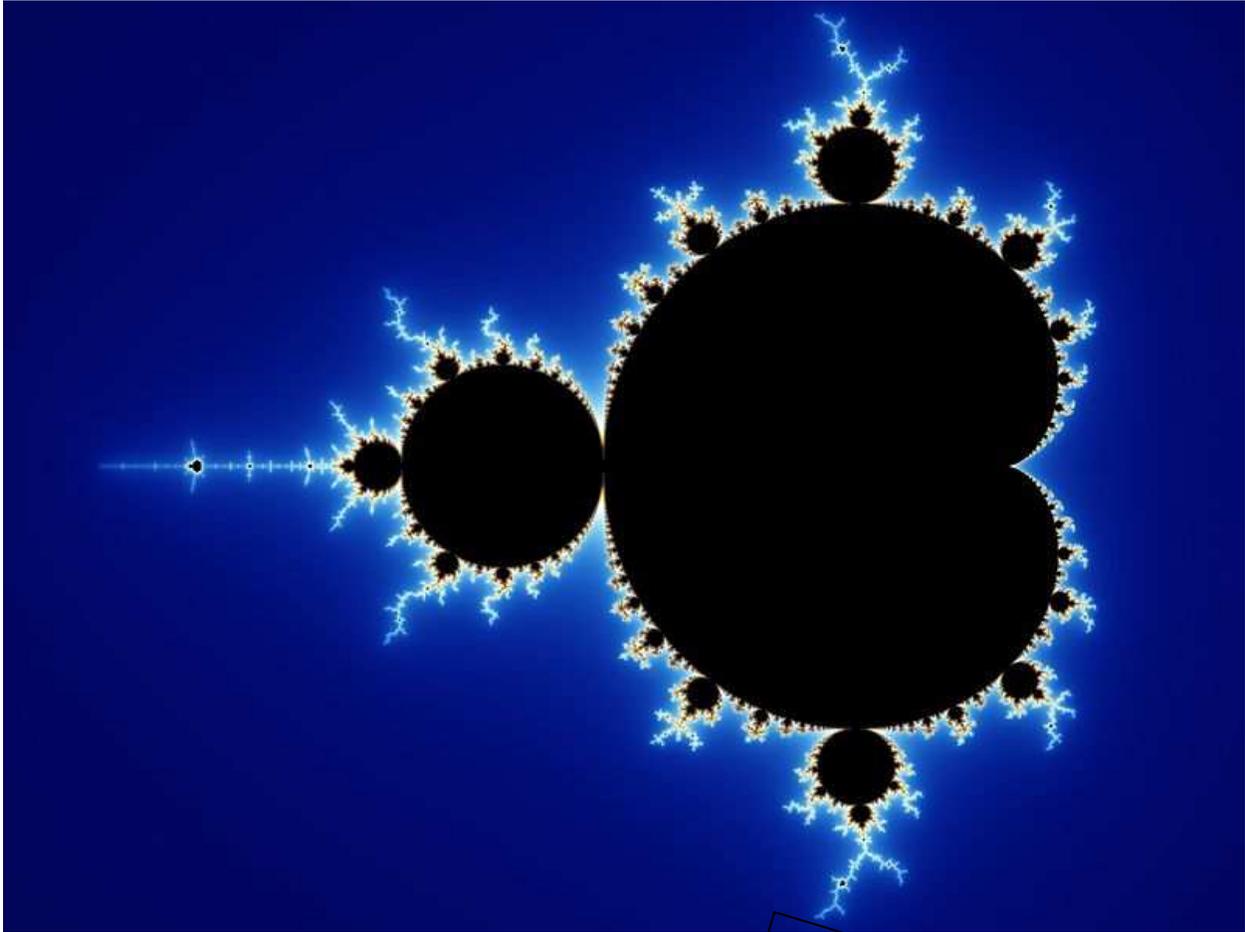
Improvisation skills learned in drama also apply for living an interesting and engaging life. There is a link between picking up a girl in a club and trying to sell somebody a mobile phone. A first date and a job interview are kissing cousins.

Transfer of Learning is made easier by thinking of the universe like a fractal. We are reminded that no matter what we look at, we are looking at different parts of basically the same shape. Even though throwing a party and painting a picture are two entirely different activities, one may still teach you a little bit about the other- They both require a certain aesthetic sensitivity, an attention towards emotion and experience.

The patience and discipline we learned in school is a source we can tap into when cleaning the house or fixing a car. Great cooks, writers, and lovers have developed sensitivities and attention to details that will be useful anywhere else in life, if only they can tap into it.

The Fractal Cult uses the Fern to represent the idea of **relevant structural similarity**. ("relevant" being the key word) Each leaf of the fern resembles every other leaf on the fern-- even though they are all unique.

When you are facing a challenge, learning a skill, or confused about something, visualize the fern. You are this fern frond, and you are growing a new leaf. While the shape of this leaf is unique, it is also not a new invention; it is a reiteration of something deep within you.



**FIRST MEDITATION:
THE UNIVERSE
IS FRACTAL**

The universe is infinitely complex,
but graspable because it contains
recurring patterns.

Every bit of the big picture
is present
in the most minute detail.

All is one.

Chao te Ching, Chapter 11
The Mandelbrot grows in infinite complexity
based on the empty space at its center.
Knowledge is built on facts;
A scaffolding to support ignorance.
The lines in a coloring book give the page form
but crayons give it life,
not staying constrained inside the lines,
nor reducing the pattern to scribbles.
We stick apart and stay baffled,
yet keep coming back
to the very same thing.
The lens of the first microscope revealed fractillian
ignorance.
Shaped words, unraveled meanings,
interpret, corrupt, adapt or construe.
We knew all along
words don't count.
See what exists, use what does not.

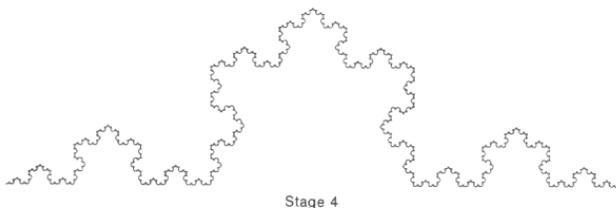
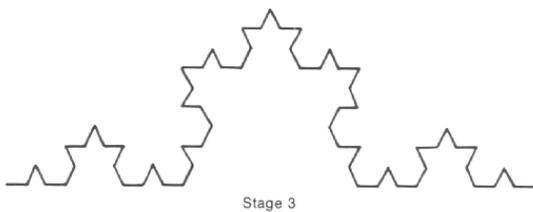
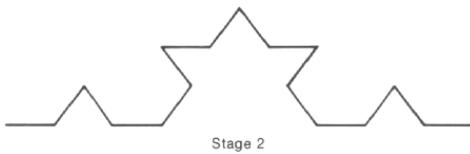
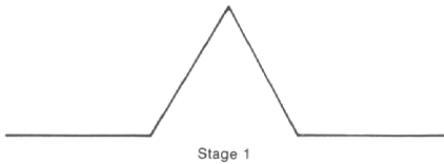
SECOND MEDITATION: COMPLEXITY

There are no simple answers.

The closer you observe something, the more complex it becomes.

Try to measure the length of a coastline. The more accurate ruler you use, the more detail is revealed, and the longer the coastline will become.

When we talk about complex things like the economy, we are only capable of describing it by generalizing, by observing recurring patterns. Even economists do not understand it.



Adapted from Benoit Mandelbrot, *Fractals*.

All truths contain caveats and footnotes, inconsistencies that are hidden as soon as we view them with confidence and certainty.

To be comfortable with complexity, we must accept that what we understand contains things we do not understand. We must not be certain, firm, or unyielding.

We can only know the world using human tools. These tools contain our flaws and biases.

THIRD MEDITATION:

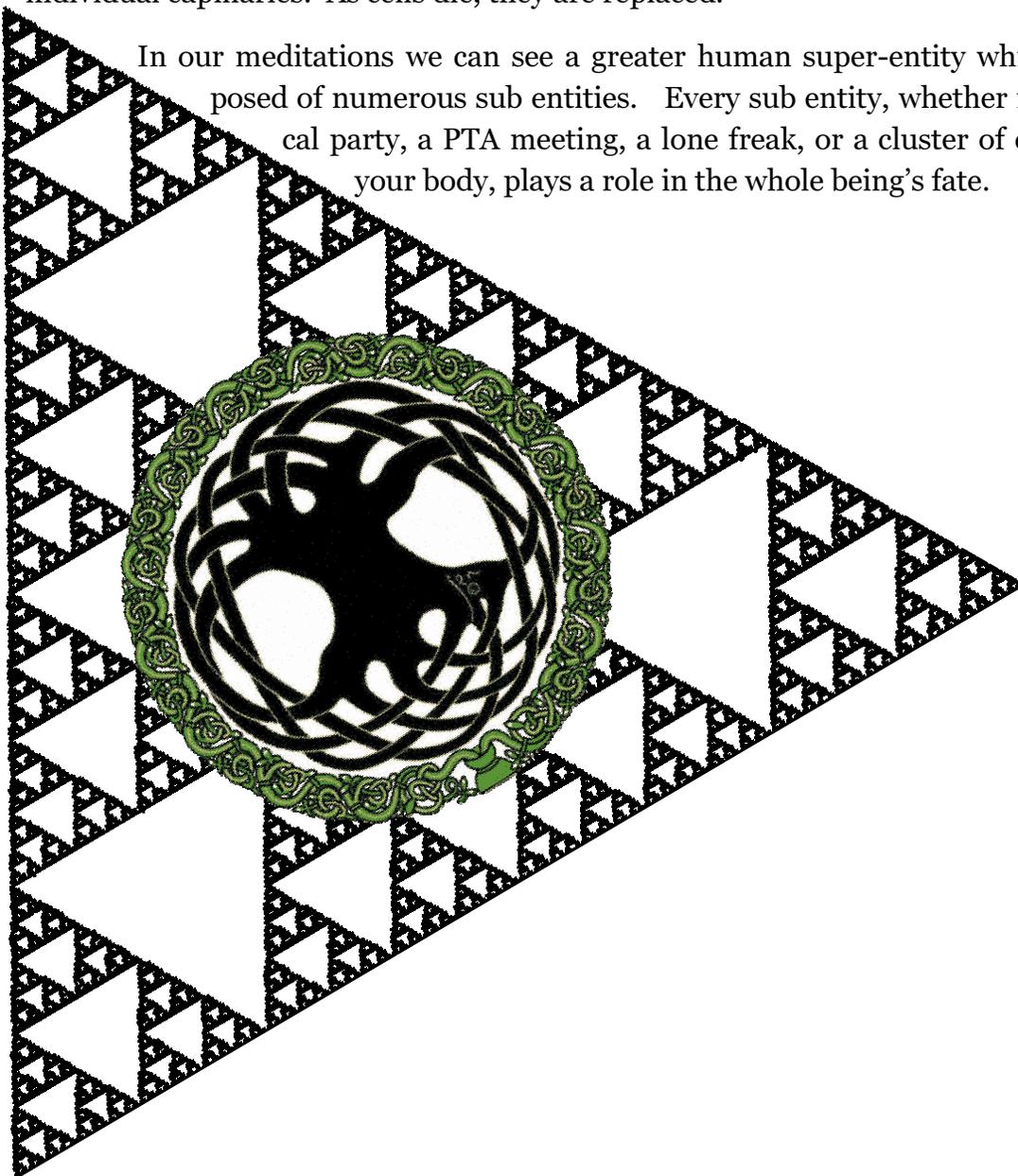
AS ABOVE, SO BELOW

Structural similarities appear regardless of scale. The big picture can be observed in small things and vice versa.

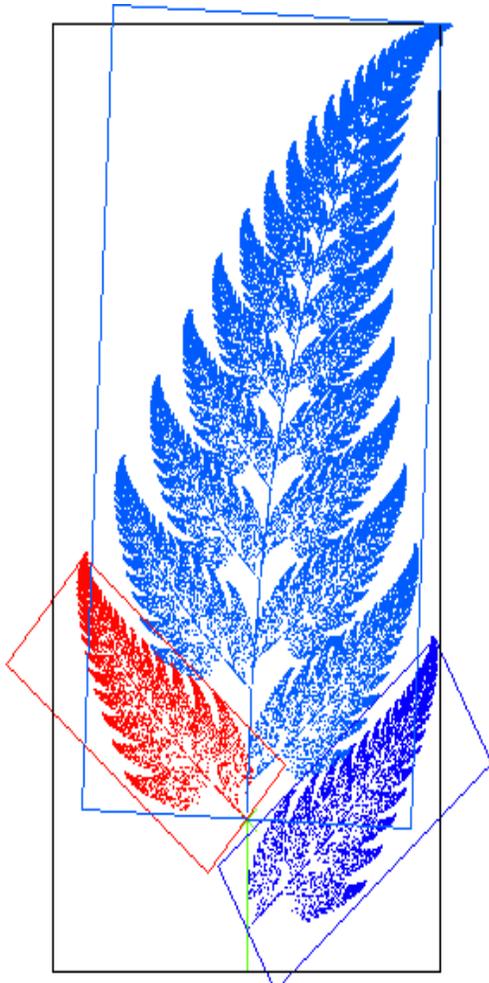
Our existence is the sum of numerous interrelated individuals called cells. Cells are organized into tissue, tissue is organized into organs, all have their own jobs and ecosystems and motivations and are essential players in the fate of the individual.

Likewise we humans organize ourselves into networks of varying scale: interest groups, families, corporations, religions, nations... We have built a society which looks like us. There is a large branching infrastructure designed to carry nutrients to small individual capillaries. As cells die, they are replaced.

In our meditations we can see a greater human super-entity which is composed of numerous sub entities. Every sub entity, whether it's a political party, a PTA meeting, a lone freak, or a cluster of cells within your body, plays a role in the whole being's fate.



**FOURTH MEDITATION:
RECURSION AND REITERATION**

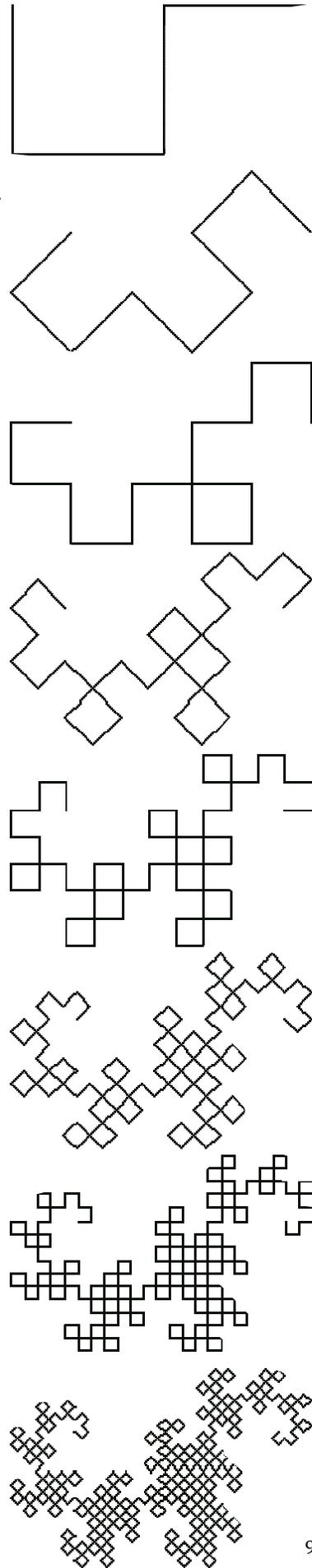


At a fixed level of magnification, the same pattern can be observed all over the place. But each iteration is unique.

We compartmentalize our lives into different parts. Your social circle, your workplace, your family, your online identity... you may seem like a very different person depending on your context. But you probably face similar challenges in each compartment.

That is because each element of your self is like a fronds on the same fern.

You must connect the **solutions** you have found in one frond to the **challenges** you face on other fronds. Each problem will require a unique solution, but bear similarities to the trials you have already faced.



TIME AND MAGNIFICATION

Patterns repeat themselves over time.

There are two dimensions involved in understanding the world as a fractal. The first is the relationship between the macro and the micro, the recurring patterns which occur in all parts of nature including the social world of humans. The second is the relationship between past and future, the recurring patterns which occur as a pattern is reiterated over time.

One way of understanding any topic is to diagram its appearance at multiple points in time and levels of magnification.

Biology -> The Self -> Groups of Individuals -> Local Politics -> Global Politics -> The Whole World

Relationships exist between higher and lower levels of organization.

Vocab terms: Iteration. Tessellation. Homology. Homomorphism.

