REVOLUTIONARY SOCIAL TRANSFORMATION

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Ever since Marx focused on the nature of social revolutions, virtually every marketing scheme in the West has claimed that its product is "revolutionary." Every new idea is claimed to be revolutionary; every new change technology is claimed to be revolutionary; every new preparation is claimed to be revolutionary. So what, on earth, exactly is "revolutionary," anyway? And how can it apply to my own life?

Let's pause in the theoretical account and give some concrete historical examples of the emergence of new probability waves, using as a point of departure some of Karl Marx's enduring insights about sociocultural transformation.

We hear much today of the need for transformation, the need for new paradigms, and even the need for a "revolution" in society, and certainly in leadership and new modes of thinking. What we see less of is any in-depth analysis of what actually constitutes societal transformation, genuinely new paradigms, or authentic revolutions. So let us see if an AQAL analysis of these key terms—transformation, paradigm, revolution—can shed any light.

Base and Superstructure Must Tetra-Mesh

Start with the nature of some of the major and acknowledged societal transformations that we have seen in history—such as from foraging to agrarian, or magic to mythic, or feudal to industrial. What drives these major shifts or transformations from one mode to the next?

One of Marx's central points, and a point that still rings true, is that around a particular "base" or mode of techno-economic production (e.g., foraging), there grows a

particular worldview or "superstructure" (e.g., a magical worldview). Now for Marx, of course, the base (LR) determines the superstructure (LL), whereas for us they tetra-evolve (as a play of all four selection pressures; and the "superstructure" is not "resting" on the base; they are the interior and the exterior—the Left-Hand and Right-Hand—of the same occasion). It is not that "the base" is more real or more fundamental, and "the superstructure" is an afterthought resting on and determined by the prior material base. Rather, they both arise together and mutually tetra-act as part of the AQAL Matrix. (We will still refer to "base" and "superstructure," but unless otherwise stated, we mean the AQAL version.)

One of the easiest ways to get a sense of the important ideas that Marx was advancing is to look at more recent research (such as Lenski's) on the relation of techno-economic modes of production (foraging, horticultural, herding, maritime, agrarian, industrial, informational) to cultural practices such as slavery, bride price, warfare, patrifocality, matrifocality, gender of prevailing deities, and so on. With frightening uniformity, similar techno-economic modes have similar probabilities of those cultural practices (showing just how strongly the particular probability waves are tetra-meshed).

For example, over 90% of societies that have female-only deities are horticultural societies ("horticultural" means a simple form of farming using a digging stick or hoe, contrasted with "agrarian," which is a more complex farming using a heavy animal-drawn plow. The first forms of farming were everywhere horticultural). This means that wherever you find a "Great Mother" society, you are almost always dealing with a horticultural society. Great Mother deities just don't show up in any other societal types.

97% of herding societies, on the other hand, are strongly patriarchal. 37% of foraging tribes have bride price, but 86% of advanced horticultural do. 58% of known foraging tribes engaged in frequent or intermittent warfare, but an astonishing 100% of simple horticultural did.[1]

The existence of slavery is perhaps most telling. Around 10% of foraging tribes have slavery, but 83% of advanced horticultural do. The only societal type to completely outlaw slavery was patriarchal industrial societies, 0% of which sanction slavery.

In short, the type of techno-economic base of a society constrains its various probability waves in very strong ways. Thus, it appears that there is a crucially important (if partial) truth contained in Marx's most famous statement about these facts, namely (to paraphrase): "It is not the consciousness of humans that determines their reality but their economic-material realties that determine their consciousness." That is, the Lower-Right quadrant (which includes the techno-economic base) clearly has a profound influence on the types of beliefs, feelings, ideas, and worldviews of men and women. For us, of course, this is in every way an AQAL affair—we needn't buy into Marx's tendency to absolutize the LR quadrant. At the same time, it is very hard indeed to overestimate the impact of the LR quadrant on the various modes of consciousness and culture.

There is another way to state this important point: namely, *3rd-person materialities have a profound effect on 1st- and 2nd-person realities*. That was Marx's essential and enduring insight, and it remains true to this day because it reflects an important and enduring aspect of the AQAL Matrix.

To continue Marx's historical overview: around a particular techno-economic base grows a particular superstructure of cultural beliefs and worldviews (including religious systems). But sooner or later there occur *technological innovations* (which means, for example, that at some historical moment, some forager figured out how to plant seeds and harvest crops—thus moving from a foraging base to a horticultural base). Precisely because there are obvious survival advantages to planting and harvesting (advantages so obvious that virtually all foragers everywhere adopted them whenever they were discovered), and thus the techno-economic base fairly quickly transformed from foraging to horticultural in most parts of the world. Once this happened in more and more tribal holons, it eventually settled into a Kosmic habit in the LR available readily to subsequent human holons.

But the fascinating point that Marx spotted was this: the technological innovation happens very fast (in the LR), simply because you can change the *materials* of production fairly quickly: put down your bow and arrow, pick up a hoe, dig a hole like this, put in the beans, watch. But the superstructure—the worldview, the cultural accoutrements of religion, meaning, beliefs, shared values, and so on (LL)—*moves much more slowly,* because this involves not just picking up a new piece of matter (in the Right-Hand world), but an interior subjective transformation of consciousness (in the Left Hand)—a notoriously slow and difficult process. Therefore, with almost any widespread technological innovation, the superstructure of values and beliefs *now lags behind the transformations in the techno-economic base*. In short, there is a disjuncture between Lower Left and Lower Right (between old superstructure and new base, between old

paradigm and new realities, between old culture and new social system, between old meaning and new functional fit, between old semantics and new syntax). And that spells disaster.

As we would put it, technological innovations, in order to be innovations that actually supplant their predecessors, are ones that are more evolved and carry more depth (i.e., in this case, planting that is attuned to the seasonal cycling of nature demands extensive foresight and temporal planning—demands, that is, a concrete operational wave of cognition (amber altitude), whereas much of foraging-in-the-moment demands only preoperational (magenta or red). This *increased technological depth* (the product of increased cognitive depth) is evidenced in the fact that technological innovations show an irreversible evolutionary sequence. That is, if we look at the technological evolution from foraging to horticultural to agrarian to industrial to informational, that sequence has never, *ever* run in the reverse. Barring social disintegration, no industrial society ever decided to go back to agrarian, which decided to go back to horticultural, which decided to go back to foraging. There is an Eros to the sequence: time's arrow, as Prigogine would say, is asymmetrically evolutionary.

In short, this increased technological depth (in the LR) from foraging to horticultural could now support an increased depth in the worldview (in the LL)— namely, a move from magic to mythic.[2] But the foraging tribes that first started horticultural planting *still had a magical worldview* that was originally adapted to, or tetra-meshed with, the old foraging mode. Thus, there was a disjuncture, a friction, a contradiction, between base and superstructure (for us, between LR and LL). They had a

techno-economic base capable of supporting a new and advanced mythic worldview, but they were stuck with an "old paradigm"—the old magical worldview adapted to a foraging base that no longer existed as the significant mode of production. (As Marx would put it, the relations of production were out of sync with the forces of production.)

Because the LL and LR no longer meshed, something had to give: some quadrant will get a painful deconstruction. There will have to be a profound *cultural revolution* (LL) in order to tetra-mesh with the techno-social revolution (LR) that just occurred.

It was Marx's genius to spot these internal tensions and contradictions between base and superstructure (LR and LL) as new techno-economic bases historically emerged, and he intuitively understood that if there is not tetra-mesh, all hell is about to break loose, as the *newly rising culture* (meshed with the *new base*) is attacked by the old culture (functionally fitted to the old base). This is usually translated as the idea that history is driven by class warfare, but the crucial point for Marx was that classes themselves are defined in relation to a particular mode of production—the warfare is between different techno-economic modes and the worldviews they support. As new technological modes emerge, more progressive and expansive worldviews become available, but societal revolutions are often required to put the quadrants back in sync (more about this in a moment). Time, history, depth, and Eros are on the side of the newly rising culture, but the transition from the old paradigm to the new paradigm is usually less than pleasant.

To put it bluntly, one of the main causes of culture wars is that there is a break in the AQAL Matrix, a disjuncture between LL and LR that tears the communal fabric, often

violently. And that happens because transformations in the LR or techno-economic base (which only involves changing matter) can be put into play much more quickly than changes in the LL, the superstructure, culture, or reigning worldview (which demands a change, not just in material, but in consciousness). Thus, as is often said, technological developments run ahead of our wisdom in how to use them (among other things).

Now, of course, this is not a one-time or singular affair. What Marx failed to see is what virtually everybody else has failed to see in this regard: it is not that each society has a single monolithic technological mode and a single monolithic worldview, and that the two somehow have to match up. Rather, each society is a spectrum of AQAL actualities: there are different percentages of individuals at every level of the spectrum of consciousness, at least up to the average level of that culture (with a few moving beyond). And there are pockets of every mode of techno-production up to the leading edge: even in industrial societies, there are red street gangs foraging for their existence; individuals with gardens in their backyards are using digging sticks and hoes; and the farmers of Kansas are still out there with heavy (animal-drawn or machine-drawn) ploughs planting seeds. So there is no single base and no single superstructure, such that an internal contradiction between them could propel the major transformations that have marked history. Marx's general idea—that of a mismatch between LL and LR causing internal communal contradictions and tensions—is still true, but the mismatch spans the spectrum of consciousness up to the highest average wave in that society, and in all four quadrants with their many waves and streams (all of which have to tetra-mesh in the AQAL configuration, or something has to give).

In the modern West, the major culture wars involve not just *traditional* versus *modern* versus *postmodern* values, but techno-economic modes of *farming*, *industrialization*, and *informational* sectors, with worldviews of *mythic*, *rational*, and *pluralistic* (respectively and correlatively). In the nonwestern world, the major conflicts are between tribal-foraging and mythic-agrarian at war with modern-industrial and postmodern-pluralistic modes.

Thus, the socio-cultural tensions (and legitimation crises) span the spectrum, with various cultures and sub-cultures in various mixtures of stable and unstable mesh. With regard to the LR social system and its techno-economic base, what generally happens is that a technological innovation begins in the mind of some creative individual (UL)— James Watt and the steam engine, for example. This novel idea is communicated to others through the inventor's verbal and cognitive behavior (UR), until a small group of individuals eventually understands the idea (LL). If the idea is compelling enough, it is eventually translated into concrete forms (e.g., the building of actual steam engines), which now become part of the socio-economic base (LR). Precisely because adopting the base requires only a change in material, and not a change in consciousness, then the technological revolution can speed through the social system extremely quickly—leaving the old cultural worldview completely out of sync with the new realities.

To change that cultural worldview requires, of course, a difficult subjective transformation of consciousness in order to tetra-mesh with the new social realities of increased depth. And the only way that generally happens is: a group of individuals who have precociously developed to the higher wave of culture and consciousness eventually

—through means peaceful or not—end up at the helm of a novel governance system whose characteristics are those of the new probability wave (in consciousness, culture, and technics)—that is, the same new wave that produced the new technics.

Thus, for example, concrete operational cognition, which produced horticultural technology, could also support a move from preconventional tribal governance to sociocentric, conventional, trans-tribal forms of governance that united various tribes into larger non-kinship-lineage political blocks, as well as a shift from magic worldview to mythic worldview. And in turn, the new horticultural technics itself, created by and embodying a greater cognitive depth, supported and actively inculcated a mythic worldview: hence the tetra-evolution. (Marx was right in that, for most people, the techno-economic base is a major determinant of their consciousness; but he overlooked where the base originally came from: namely, the consciousness of the inventor, which clearly determined the base. In other words, Marx overlooked the AQAL Matrix and tended to absolutize the Lower-Right quadrant, an absolutism we needn't share in order to appreciate his important if partial truths.)

Likewise, formal operational cognition, which could produce a steam engine, could also support the move from conventional to postconventional modes of governance (e.g., from aristocracy to representative republican democracy, outlawing slavery at the same time for being immoral, which from this level—and only this level—it is indeed)— as well as a shift from mythic to rational worldview—so that, once again, all of the quadrants, at the same level of depth, would tetra-inculcate the others.

Using the example of the shift from tribal-magic-foraging to village-mythic-horticultural, even though the new mythic culture is *governed* from the leading-edge of collective evolution, nonetheless there are still pockets and subcultures of archaic and magic values—the existence of which causes internal culture wars of great significance (the historical battles between magic and mythic are legendary; see *Up from Eden*). The point is that everybody is born at square one (the archaic), and grows and develops from there up to, possibly, the highest expectable level in that society (and occasionally a stage or two beyond)—and they can stop at any level, leaving the society as a "layer cake" of individuals at different levels of development. So it is not that there is simply a wrenching culture war between one epoch and another, but that within any given epoch, there are internal culture wars representing the pockets of Kosmic habits still available on their own. Each society, as we said, is an amalgam of different percentages of individuals at virtually all levels of development (up to that of the culture itself), and their internal squabbles often reek havoc. (This is yet another reason that the Integral transformation now facing us is so truly *revolutionary*—for the first time in history, the leading-edge would embrace all previous worldviews, finding room for each and all, essentially ending sanction for the culture wars from the leading-edge itself.)

Paradigms

Incidentally, this account of historical change via AQAL selection pressures is consonant with Kuhn's observations on scientific revolutions, which are simply a subset of the AQAL transformational matrix we are outlining. Briefly: certain factual discoveries in the Right-Hand world cannot be accounted for by any scientific worldview in the Left Hand, and thus a severe disjuncture occurs between base and superstructure (between LR and LL), such that an often painful revolution in belief structures and worldviews is now required to keep pace with factual information. Thomas Kuhn, in *The Structure of Scientific Revolutions*, outlined hundreds of such paradigm shifts or revolutions in scientific practice.

The way Kuhn used the term "paradigm," of course, has been badly misunderstood by the public and by most critics and appropriators of the term, who incorrectly use it to mean some sort of overarching theory or super theory. Fritjof Capra, Stan Grof, Duane Elgin, Richard Tarnas, Charlene Spretnak—the list is virtually endless —would say that a new holistic or ecological theory should replace the old atomistic, Newtonian-Cartesian worldview, and that would be a new paradigm. But that typically incorrect use has Kuhn exactly backward. "Paradigm," for Kuhn, does not mean the theory or the superstructure, but the base or social practice. Paradigm is an almost exact equivalent of techno-economic base, social practice, behavioral injunction, or exemplar (the term "exemplar," meaning "practice to ideally be followed," is the term Kuhn finally chose for "paradigm," since the latter term was so often misinterpreted in ways I'm

outlining, which infuriated him, and eventually led to his using an entirely different term, which clearly doesn't mean "theory" but more like "injunction").

That is, a paradigm is a set of social practices and behavioral exemplars—specific types of experiments, for example, that generate a specific set of data or factual occasions. A paradigm, exemplar, or injunction brings forth, enacts, and illumines a particular set of phenomena, data, experiences, or apprehensions. (This is why my own broad theory of good science has three major strands: injunction or paradigm, enacted data or apprehensions, and confirmation/rejection. The first strand was modeled to take account of Kuhn's important work, while setting it in a larger context of phenomenology, falsifiability, and other equally important if partial factors.)

Thus a paradigm, as Kuhn used it, might be a particular set of experiments that produce X-rays. These experiments, injunctions, or social practices (the Lower Right) become the models or exemplars of how good science in that field is to be done. Other scientists use and model those exemplary practices to produce (enact and bring forth) more data, phenomena, or factual occasions. And—almost exactly as in Marx (because they were both onto the AQAL nature of this thing)—around this base or paradigm (LR) grow various superstructures, theories, or worldviews (LL) that are molded and determined by the base.

Thus, for example, around an entire set of physical experiments and paradigms had grown the entire edifice of Newtonian physics theory. That is, around the LR base of technological production grew LL theories and worldviews. Or again, around the LR base of data production and injunctive paradigms (which enact and bring forth various

types of data, experiences, and phenomena) grew various LL theories, superstructures, and worldviews that attempted to explain the factually enacted data. The base or paradigm helps determine the consciousness of the scientists in this regard (just as the techno-economic base helps determine the consciousness of individual in any society—although, again, for us it is an AQAL affair that does not privilege any single quadrant, level, line, or state). As we saw with Marx, the essential point is that 3rd-person materialities have a profound effect on 1st- and 2nd-person realities.

This arrangement—which is Kuhn's "normal science"—works well as long as the data generated by the paradigm continues to fit within the prevailing worldview. The Newtonian theory, for instance, worked very well for a very long time to explain all of the data that had been generated to date. With a few exceptions… such as black body radiation and Brownian motion. And as more and more sophisticated experiments were invented, new data were generated that could not in any way be explained by the old theories. Thus, the base of technological production—the new paradigm—was generating experiences that could not be accounted for by the old theories. The new base needed a new worldview, and thus science was set for yet another "revolution," or dramatic change in worldview to account for the progressive increase in depth of the new paradigm demanding an increase in depth in a new theory.

And yes, this was scientific *progress*, as Kuhn made very clear ("I am a firm believer in scientific progress"—Kuhn), again showing his (correct, I believe) agreement with Marx in this essential regard (namely, there is a progressive Eros to the sequence, or else "revolutions" are not really revolutionary but are merely the old cyclical going

nowhere). Kuhn felt the necessity to reaffirm his belief in progress because of what postmodern pluralism/relativism was doing with his ideas—namely, make it appear that "facts" were social constructions of scientific theory, and changing the theory would change the facts—again, exactly backwards.

Of course, virtually all of today's "new paradigm" theorists—including all of the authors just mentioned, and literally hundreds of others—claimed that they had a new paradigm, when in fact they had no such thing. All they had was a new theory, not a new base, not a new set of injunctions to generate new data, not a new exemplar at all. The wildly popular version of "paradigm" had the cart before the horse, and simply presented a new theory with no new paradigms at all—that is, the "new paradigms" were entirely a boomeritis version of Kuhn's important research (see *Boomeritis*, chap. 8).

Whenever a new (and real) paradigm enacts and brings forth new data, the old worldviews and theories are thrown into a crisis that can only be resolved by a progressive increase in depth to keep pace with the increase in depth in the new paradigm or techno-productive base. Whether this crisis (or *paradigm clash*—which means, clash between various technological forces of data production, or a clash between the types of experiments and exemplars that will be taken as producing the most significant data)— whether this crisis is resolved through overt *revolution* or quieter *reform* (see below), the results are the same: an increase in depth in both Lower Right and Lower Left (and therefore Upper Right and Upper Left for all those involved). In short, all four selection pressures in AQAL space swing into play and conspire to move Eros yet another notch forward in the Kosmic game. (This does not mean that all progress is sweetness and

light; as we will see below, new progress and new pathologies often go hand in hand, but that fact in itself is not enough to deny the aspects of development that can and do represent genuine and progressive increases in depth.)

But let us immediately note that a paradigm clash is actually a small subset of a much larger and more important phenomena, so let us move forward to that larger discussion.

Legitimation Crisis

A paradigm clash is actually a good example of what is more generally known as a *legitimation crisis*.

First, a few technical terms. In my own approach, *legitimacy* refers to *adequacy in horizontal* **translation**, and *authenticity* refers to *adequacy in vertical* **transformation** (see, e.g., *A Sociable God*, CW4). Thus, *authenticity* is a measure of the degree of depth or height of a belief system (so that a turquoise worldview is more authentic than an amber worldview), and *legitimacy* is a measure of how well that worldview functions at its own level. A particular worldview can be very legitimate (or happily accepted by most members of the culture) but not very authentic (e.g., it might be a magenta or red belief structure). On the other hand, some worldviews might be very authentic (representing, say, turquoise or high vision-logic cognitions) and yet not very legitimate (or not accepted by the ruling or ruled classes).

A *legitimation crisis*, in the broadest sense, is a breakdown in the adequacy of a particular mode of translating and making sense of the world—that is, a breakdown in the

adequacy of a particular worldview and its capacity to command allegiance among those it is supposed to be influencing in one significant way or another. This can occur in any culture or subculture (including the scientific, as we just saw), but it has particular relevance in the *political arena*. Thus, a governing body (chieftain, ruler, monarch, plutocracy, aristocracy, democracy, etc.) is said to be *legitimate* if it is widely accepted by the governed (or if, alternatively, there are good legal/moral reasons for supporting it). *Legitimation* is the process by which members of a particular culture believe (and thus follow) the governing agencies (from theoretical to political) of that society. And *theories of legitimacy* attempt to explain (and/or justify) why a particular governing system has the acceptance and allegiance of its members (the explanatory reasons for this acceptance can range across a spectrum from mere functionality at one end to more substantive, moral/normative reasons at the other).

A political legitimation crisis therefore means a sociocultural crisis in the prevailing modes of translation (at any given level) in reference to the governance systems of that culture (whether that culture be political, scientific, medical, educational, etc.). A legitimation crisis, in the broadest sense, is a crisis of faith in the prevailing worldview and in the governing bodies representing that worldview.[3]

At the turn of the century, Max Weber authored an extremely influential treatise (*Economy and Society*) in which he identified three major sources of political legitimacy (or reasons that people have followed a particular governance system or regime): customs or traditions; legal-rational procedures (e.g., voting); and individual charisma. Although those three *sources* of political legitimation do indeed exist, Weber's *analysis* of those

sources of legitimacy was mostly functional—that is, those sources were not viewed as good or right, but simply as ones that have worked. This essentially functionalist view of legitimacy continues (implicitly or explicitly) to be embraced by most systems theorists, including most famously Niklas Luhmann.

Other theorists, disturbed that Weber's analysis was merely functional and not moral or normative (and thus could be used to confer legitimacy on, say, the Nazis, as long as they functionally worked—i.e., in functionalism, legitimacy is reduced to the state's capacity to generate belief in its legitimacy: the standard systems theory reduction of all Left-Hand values to LR functional fit), have added other views of legitimacy and its justification, particularly those focusing on *rights* (a view running through Hobbes, Locke, Kant, Rawls, Habermas). In this view, a governance system is legitimate (and thus deserves the allegiance of its members) if it guarantees certain human rights, usually secured through some form of *social contract* between the governed and the governing. We will return to this important view in a moment.

A fifth view of legitimacy might be added, namely, the *postmodern*, which abandons a search for universal grounds of justification and returns to local narrative traditions under the banner of plurality and diversity (at which point it becomes pragmatically indistinguishable from the first form of legitimacy, that of customs/ traditions, and thus is forced to justify every form of local barbarism: as with so much of postmodernism, it degenerates into regressive displays).

Now, all of those sources and views of legitimacy (rightly or wrongly) are present in today's world, including traditional customs, charismatic leadership, and implicit or

explicit social contracts. A *legitimation crisis* occurs when the belief in the governing

worldview and its representatives begins to break down, and this breakdown is in every

way an AQAL affair—factors from all the quadrants, levels, lines, states, and types swing

into play, summarized as "selection pressures in all four quadrants"—and if this

turbulence is severe enough, then "societal revolutions" are often set into motion.

Societal Revolutions

During any widespread political legitimation crisis (just as we saw with any

profound scientific crisis), when turbulence in the AQAL Matrix reaches a critical

threshold point, translation breaks down and transformation ensues—that is, horizontal

modes of translation cease to be effective and vertical transformation to new modes

altogether are required in order to meet the new selection pressures.

But "societal transformation" can be either progressive or regressive—that is, the

vertical shift in levels can be either breakthrough or breakdown, a leap to higher levels of

organizational complexity or a retreat to lower, less complex, more primitive states. We

will see examples of both.

At the same time, many "societal revolutions" are really neither higher nor lower;

they are simply different ways of translating at essentially the same level of culture,

consciousness, and complexity. In fact, the original meaning of "revolution" was not

progressive or transformational at all, but merely circular. That is, for virtually all

political theorists throughout most of history, a social or political "revolution" was not

any major breakthrough to a higher or deeper level of anything, but merely a cyclical,

circular, or revolving affair—the very word "revolution" comes from "revolving," and it meant just that, a revolving "same ole same ole" pattern basically going nowhere. Thus, Plato and Aristotle analyzed the *cyclical* changes in governments from aristocracies to tyrannies to democracies and back again. Renaissance Italian scholars introduced the term *revoluziones* to describe the *alternating* pattern of popular and aristocratic factions. Thomas Hobbes used the English word *revolution* to describe the *circular* transfer of power from king to parliament and back again. Nothing in any of those changes was thought to be progressive, permanent, or transformational.

And then, for the first time in history, "revolution" was used by a political theorist to mean a vertical shift or transformation to higher levels or modes of being and governance. The theorist? No surprise: Karl Marx (and Frederich Engels), in *The Communist Manifesto* (1848), which attempted to demonstrate that all of history is actually a series of revolutions (or higher transformations) tied to economic progress. Believers in transformation and new paradigms have been talking about their "revolutionary" new ideas ever since.

Still, as we were saying, Marx was on to a series of enduring insights. First and foremost, he was writing in the wake of the historical realization that history is significant: that is, the realization that evolution touches all areas of the manifest world. This crucial insight, first enacted by the orange probability wave—and intensified with teal—had driven the profound changes in humanity's understanding of itself that were expressed in the rise of the evolutionary interpretations of the Kosmos that began to appear in everything from biology (Darwin) to sociology (Spencer, Comte) to psychology

(Baldwin) to philosophy (Schelling, Hegel): not only species, but ideas themselves evolve and have a history.

It was Marx's peculiar genius to realize the need to link these evolutionary historical unfoldings to techno-economic structures (even if he went a bit overboard), and that is why it is always a good idea to at least touch bases with Marx whenever we talk of social "transformations" and "revolutions," because otherwise the discussion becomes focused merely on changes in ideas, consciousness, or culture, without understanding the absolute necessity of linking any real changes to the Lower-Right quadrant of social materialities as well. (As we saw, a real paradigm is a LR social practice, not a LL theory or worldview—as we earlier put it, 3rd-person materialities have a profound effect on 1st- and 2nd-person realities—and it was Marx who first spotted that crucially important point.)

For Marx, history was therefore marked (at least in part) by a series of revolutions linked to *progressive* (or vertically transformative) changes in techno-economic capacity. In each case, an older, more primitive, backward, and often oppressive economic class (with its outmoded worldview, philosophies, and belief structures), which had benefited from the old techno-economic base, was overturned by a new and rising class whose power stemmed from more advanced forces of techno-economic production. The important moment of truth in all this is that there is indeed a slow, overall Eros to the sequence—there is a slowly increasing developmental depth in cognition, culture, and techno-economic forces of production (rock to spear to bow-and-arrow to plow to steam engine to computer). And if a particular societal crisis happens to occur on the cusp of

one of those major increases in developmental depth, then the only thing that will resolve

the tension and turbulence in the AQAL space is a vertical social transformation and

cultural revolution (or, at the least, profound cultural reform). In short, the only real cure

for a crisis in legitimacy is an increase in authenticity.

Marx's initial insights into that process are sound and enduring. But, much like

Freud, although Marx's general ideas were often sound, he got virtually every detail

wrong. And his notorious reductionism, also like Freud's, is something we can happily

jettison. (Marx's statement that we earlier quoted—"It is not the consciousness of men

that determines their reality but their economic-material realties that determine their

consciousness"—becomes interesting only insofar as the meaning of the word

"determines" approaches "causes," which in fact it never does, not even in Marx. Rather,

the social-economic realities of the LR are part of the crucial elements that tetra-

determine the nature of any actual occasion.) But for just that (limited) reason, Marx's

insights are an important part of any AQAL analysis of social transformation and cultural

revolution. Every revolution, every transformation, every shift in consciousness and

culture that actually sticks has *of necessity* a Lower-Right component, and if that

component is not present and prominent, you can dismiss any claims to have a new

paradigm, a great transformation, or a new and revolutionary anything.

For the most part, of course, most political "revolutions" have not been riding the

cusp of any truly vertical shift in any of the quadrants. Like mutations in nature,

revolutions in politics are usually lethal, not beneficial, or are at most what their name

originally meant, merely a circular or superficial change of the guard in the

fundamentally same underlying regime (i.e., they are a surface structure shuffling in the same deep structure in AQAL space). Only a small handful of true revolutions are riding the cusp of Eros. The American revolution caught the beginning wave from amber to orange, and therefore represented a profound vertical transformation (from mythic to rational, from ethnocentric to worldcentric, from conventional/conformist to postconventional/individualist). But in the twentieth century there have been over *one hundred* "revolutions"—most of them merely a barbaric reshuffling of the cards (and many with anything from slight to significant regression, or downward transformation).

As one historian has pointed out, "What is perhaps most striking about revolutions in this century is their sheer volume and variety. From the beginning to the end, in every area of the world, revolutions have shaped political life." Mexico, Saudi Arabia, China, Turkey, Iran, Russia, Germany, Poland, Hungary, Czechoslovakia, Vietnam, Algeria, Nicaragua, Argentina, the Congo, Zimbabwe, Cuba, Columbia, Portugal, the Philippines, Cambodia, Egypt, Libya, Syria—the list of twentieth-century revolutions is virtually endless. Few of these revolutions were hooked to any vertical current in any of the quadrants, but rather were "cyclical" or surface-structure changes in essentially the same AQAL space. Call these "horizontal revolutions," if you will.

Historians, such as Jack Goldstone, have identified *four major factors* that account for most of these horizontal revolutions, and the more of these factors you find in the AQAL configuration of any given culture, the more likely there will be a (horizontal) political revolution:

1. A weakened government, usually due to economic reasons. This weakness leaves an opening for a revolutionary coup.

2. A change in the balance of power between the major elites in the culture. Typical elites include army officers, political leaders, high bureaucrats, cultural and religious leaders, labor and business leaders, and intellectuals. These elites usually compete for power following various implicitly understood "rules of the game" in that culture, but occasionally, due to various factors, there is an upset in elite power distribution and one elite seizes control or a new elite emerges—"*such elite leadership is a prerequisite for revolutions*" (Goldstone, *Revolution and Rebellion in the Early Modern World*). Contributing to elite turmoil in the AQAL Matrix are international trade of goods and ideas, new investment, foreign aid, military support, new economic modes and opportunities.

3. Rapid population growth, which tends to increase poverty and resource depletion, undermines workers and peasants, and stresses governments.

4. Erratic international intervention. International consensus often halts revolutions, and lack of it encourages them.

Empirically it has been the case that the more of those factors present in any society, the greater the likelihood a revolution will occur. As we would put it, the more of those factors that are present in the AQAL configuration of any society, then the greater the probability that this AQAL space will also contain, as an actual occasion, a legitimation crisis that will reach a critical threshold, followed by a (horizontal; although very, very rarely, vertical) political-social revolution.

Further, scholars agree that such (horizontal) revolutions usually increase nationalism, mass mobilization, and state power, all of which often lead to war, which are common byproducts of revolution.

The only places in today's world not significantly touched by those four factors are Europe and North America, which means that the rest of the world is still open to—and will very likely continue to suffer—violent revolutionary altercations, and human suffering will rise proportionately.

In fact, apart from the world wars, the most human suffering in the twentieth century has come from revolutions and subsequent attempts to prop up revolutionary institutions: in the Soviet Union, Eastern and Central Europe, China, Africa, Asia, Cambodia: tens of millions of people were executed, starved, tortured, or imprisoned to create revolutionary states, all of which promised sovereignty to the people when the people were nowhere near capable or even desirous of such. The difficult fact for "revolutionaries" of all varieties—political to academic to cultural—to realize is that an authentic revolution is in every way an AQAL affair, demanding not just a "new paradigm," not just a new worldview, not just a new techno-economic base, not just a new social system, and not just a new set of ideas—but all of them and all together. Failing that, social revolutions are more often than not simply an occasion for more human carnage of one variety or another.

The Fifth Factor

Another item that is often missed in any understanding of social transformation is the "all level" part of the AQAL parameters. An increase in exterior or social or economic development can only be sustained with a corresponding increase in interior development in consciousness and culture. Simply trying to put a new form of governance, political system, or social distribution network in place without a corresponding development in the levels of the interior dimensions of consciousness has historically guaranteed failure in societal transformation.

For example, the very notion of a *social contract* (which is the basis of most forms of sophisticated legitimation, including today's representative democracies) is itself the product of an orange (or higher) wave of moral development. And yet the orange probability wave emerged on a fairly widespread scale only three centuries ago. For this reason, it is no accident that democratic governance systems (of a social contract nature) are very recent developments in human evolution, emerging only after the Western Enlightenment on any widespread scale.

In fact, it was the historical emergence of the orange probability wave in the Left-Hand quadrants (i.e., the Gebserian move from mythic to mental-rational, or from amber to orange level worldview), coupled with profound advances in techno-cognitive capacity represented by, for example, the steam engine over the windmill (in the Right-Hand quadrants), that inserted Eros into the sequence of historical-developmental unfoldings and thus profoundly increased the likelihood that of the revolutions occurring at that time, at least some of them would be of a significant, vertical, truly transformative nature.

That is, the existence of a *fifth factor*—namely, the significant increase in depth in any of the quadrants in a particular society's AQAL configuration—when added to the other four factors (outlined above), substantially increases the likelihood that a merely horizontal revolution will actually give way to a vertical revolution as well.

Put differently, when the AQAL configuration of a society possesses the standard risk factors for horizontal revolution, plus a fifth factor (namely, an increase in depth in any of the quadrants), then the AQAL selection pressures will include an element of Eros (or the morphogenetic pull to greater depth, complexity, consciousness, and care), and thus the AQAL selection pressures will agitate toward an *increase in authenticity* in *all* of the quadrants, or an increase in the developmental level of consciousness, culture, and complexity, because only by an increase in depth (or an increase in authenticity) in all of the quadrants can the tension, turbulence, and turmoil created by the breakdown in translation processes, signaled by a legitimation crisis, find some sort of resolution. In short, the effective increase in depth in any one quadrant creates a tension that can only be resolved by a corresponding increase in depth in the other quadrants as well.

The exact nature of this resolution, and the exact nature of the surface structure configurations that will satisfy the agitated selection pressures in AQAL space, cannot be determined or specified ahead of time or before the fact (due to the inherently creative or novel aspect of all vertical transformations and authentic emergents: if we could predict it, it would not be emergent); but, as with any complex vertical transformation, its pathways can be understood *after the fact* by a reconstructive inquiry that tells us *what*

happened, and an AQAL interpretation that can better help us understand *why* and *how* it happened.

Major vertical social transformations are relatively rare, certainly in any widespread and significant fashion. Historians alive to verticality (in consciousness, culture, and complexity—that is, in any of the quadrants) have found only a half dozen or so truly profound society-wide transformations (e.g., foraging-magic, horticultural-magic/mythic, agrarian-mythic, industrial-rational, informational-pluralistic).[4] Marx focused on the vertical shifts in techno-economic modes (or the Lower-Right quadrant), which is clearly one of the critically important dimensions in societal change simply because techno-economic materialities constantly touch all members of a society (and are, as hinted in an endnote, probably the single strongest determinant of the average mode of consciousness in a culture).[5] Gerhard Lenski's work on the stages of techno-economic development is probably the most sophisticated in this line of approach, and his techno-economic stages are now virtually uncontested by scholars: *foraging, horticultural, agrarian, industrial*, and *informational* (with side branches into *maritime* and *herding*, both roughly at the level of horticultural to agrarian). These stages are a standard part of my own version of the Lower-Right quadrant in the AQAL matrix.

It was *Jean Gebser* who gave the first compelling account of the correlative cultural transformations in the Lower-Left quadrant (although the breakthrough insights in this regard were first made by theorists from Schelling to Hegel to James Mark Baldwin). Although Gebser had no clear understanding of their internal relation to modes of production (i.e., Gebser possessed a pre-quadratic approach), his stages of cultural or

worldview transformation are likewise generally uncontested by relevant scholars (although the interpretations of their significance sometimes differ): *archaic* (infrared), *magic* (magenta), *early mythic* (red), *late mythic* (amber), *mental-rational* (orange), *integral-aperspectival* (green and higher, but especially teal). These general stages (conceived as probability waves) are one influential way to interpret the stages in the Lower-Left quadrant of the AQAL Matrix (because Gebser was writing at a time that green had not yet widely emerged, he tended to treat all higher structures—starting with green and including teal and turquoise, plus any higher states—as belonging to "integral-aperspectival"; I generally break these down into aperspectival or pluralistic—green—and integral or 2nd tier—teal and turquoise).

Since everybody in every culture is born at square one and begins their growth and development from there (in all their lines or multiple intelligences)—and any individual can stop at any major level—then any given culture is a "layer cake" of different percentages of its population existing at various levels. Generally speaking, the culture (and especially any of its subcultures) will have a "center of gravity" at a particular level—which is the developmental (rainbow altitude) level at which its nexus-agency is primarily operating—and this cultural center of gravity represents the level of "dominant discourse" or "dominant resonance" through which the culture at large operates. And if an individual is below this cultural center of gravity, that center will act as a "pacer of transformation" helping to pull up (or transform) the individual to that same level; and if the individual is higher or beyond that center, it will act to pull them down—any higher transformation (in structures or states) will have to be engineered by

the individual on his or her own (generally by finding a micro-community and micro-culture—such as a "sangha"—whose own center of gravity is that which the individual is seeking to incarnate). The tensions between these various subcultures—each with a different developmental level of their nexus-agency (in the overall "layer cake")—drives all sorts of various "culture wars" internal to the society; if intense (and combined with factors discussed above), this can lead to "civil wars" and "revolutions" (and with greater frequency but less intensity, these often happen within particular subcultures as well).

When these cultural worldviews first arose, the level of cognitive complexity embodied in them could, when turned to the exterior world, produce *correlative* modes of techno-economic production (which in turn tended to inculcate the same level of depth in the users of the base). Thus, when the interobjective dimension of an actual occasion appears as a foraging mode, the intersubjective dimension appears as an archaic-magic worldview; when the interobjective dimension appears as horticultural, the intersubjective dimension tends toward early mythic (or magic-mythic); agrarian, late mythic (or mythic proper); industrial, mental-rational; informational, pluralistic.

I said these correlations hold "when they first arose," because the whole point about techno-economic modes is that, once they are produced by a particular level of consciousness, they can be used by virtually any level of consciousness (whether it could itself produce them or not). Thus, one of the horrors of the modern world is that morally ethnocentric tribes, which on their own could only produce a bow and arrow, could now get their hands on orange technology (material Right-Hand artifacts), including anything from gas chambers to nuclear weapons, and thus couple a very low level of moral

development with a very high level of techno-cognitive development. Most of the nightmares of the twentieth century—from Auschwitz to the Gulag—which have wrongly been blamed on modernity, are actually the product of premodern consciousness attaining modern technology and weapons. It is this possibility of a jarring disconnect between LL and LR that drove Marx to some of his original insights (e.g., a new and more advanced techno-economic paradigm throws the old paradigm and the worldviews that it supported into a legitimation crisis that can only be finally resolved by a corresponding vertical transformation in cultural worldviews to match the increased depth in the new paradigm/ exemplar).

My point for the moment is simply that, once a material artifact (including a force of production) is created by a correlative level of consciousness and cognition, it can take on a life of its own. Although the artifact (and the force of production) itself, precisely because it *embodies* a particular level of cognition, will always tend to *evoke* a similar level of consciousness in the user of the artifact, this is not in any way a causal or deterministic affair (not, anyway, after its first emergence). Ethnocentric tribes can use gas chambers, even though they haven't the cognitive capacity to produce them themselves: this is the horror of disjunctive development that can occur precisely because material artifacts and the consciousness that produced them can take on an independent life of their own, so that "levels and lines" (i.e., different degrees or levels of development in different lines of development—which is very common: e.g., high cognitive development and low moral development—such as Nazi doctors) becomes a nightmare of global proportions in today's world: high technical development, low moral

development, a mixture of which leads straight to Wounded Knee, to Dachau, to

Treblinka, to Sorbibor, and to September 11th .

Eros and Authenticity

We have seen that when any of four major sociocultural factors are present, the

likelihood of a societal revolution increases. We have also seen that, if a fifth factor is

added (namely, a vertical increase in depth in any of the quadrants of the AQAL

configuration of a particular society), then there is an added selection pressure that

agitates not just for a circular ("revolving") translational change in surface structures but

a vertical (or authentically "revolutionary") transformational change in deep structures

(following the morphogenetic gradient of increased complexity and consciousness, or

Eros by any other name).

As it turns out, these (exceedingly rare) vertical societal transformations (as we

have seen, there have only been a half-dozen or so truly profound ones in generic terms—

although each of those, at their original emergence, produced several dozen examples

around the world, among the hundreds of merely "revolving" revolutions also occurring)

are not necessarily of the dramatic *revolutionary* variety; some are the quieter *reform*

variety. Both occur and have historically occurred. For example, with regard to the

vertical shift from amber (late mythic-agrarian) to orange (industrial-rational), and its

corresponding shift from feudal-aristocracy-monarchy to implicit social contracts and

representative democracies, *revolutions* that attempted to ride that evolutionary wave

included the American Revolution (which succeeded fairly well due to strong factors in

all four quadrants), the French Revolution (which aborted badly and reverted to amber Napoleonic), the Russian Revolution (which never had a chance due to a pre-industrial AQAL configuration, and ended up imposing Marxism on its nexus-agency, which remained arrested at an amber/collectivist/conformist level), and the Chinese Revolution (which eventually ended up substituting Marxist amber for Confucian amber, with an industrial edge).

Where revolutions thus had a fairly poor track record, reform movements that attempted the same essential vertical transformation faired somewhat better. Prussia (in 1806-1812) and England (1828-1832) managed, via relatively quiet reform and not overt revolution, to implement many of the quadratic potentials of the orange probability wave, including a reduction in the privileges of aristocracy, extending citizenship, and progressive economic and political restructuring. These reforms were "revolutionary" in the sense of being profound, vertical, authentic transformations, but were not "revolutionary" in the overt sense of being accompanied by political insurrection, war, or physical altercations.

But whether the vertical transformation occurred via revolution or reform, the essential point is that in either case *a majority of the elite faction leading the transformation was at the orange probability wave.* As with any profound social transformation, it must be inaugurated and channeled by an elite, and the elite, in every case of genuine vertical transformation, has itself been riding the edge of the new and emerging probability wave (in this case, orange). If this is not the case, then the revolution/reform is merely of the old "circular" or "cyclical" variety, being merely a

change in surface structures in the AQAL configuration of the society. But should a

majority of the elite (or at the very least, its major ideas adopted by the elite) be

representing the leading edge of the newly emerging probability wave, then the fifth

factor is introduced into the increasingly chaotic translations of the AQAL landscape, and

selection pressures therefore begin to agitate toward a vertical transformation to a new

and higher spacetime niche, a new and higher probability wave in the cascading AQAL

ocean. The crisis in legitimacy is finally resolved only by an increase in authenticity.

Moreover, in the case of successful modern revolutions/reforms, a significant

fraction of the population at large was also at the orange probability wave (at least in the

cognitive line—although it turns out that what "significant" means is surprising—see

below). As history has demonstrated time and again, it does no good to introduce a new

mode of governance (e.g., stemming from the orange probability wave) if the

consciousness of the population itself is nowhere near that wave. Representative

republican democracy is a governance system where sovereignty resigns in systems of

holons at the orange probability wave; such a democracy has never occurred at amber,

red, or magenta. Representative democracies and the reforms they carry are only around

300 years old in any sort of enduring fashion; they are dated with the Western

Enlightenment and the emergence of the orange probability wave on a widespread scale.

But just how "widespread" does widespread have to be? As it turns out—at least

according to a preliminary survey of the last few vertical transformations—not that great,

due to a peculiar social phenomena knows as a "tipping point." It appears, for example,

that when around 10% of the population reaches the particular leading-edge wave, that

creates a tipping point where the values of the leading edge tend to permeate the entire society, even though only 10% of the society itself is actually at that higher level.

Thus, when just 10% of European and American society became orange, we find the French and American revolutions (replacing monarchy with representative democracy); the writing of the American *Constitution*; the complete legal abolition of slavery; and the replacement of mythology with science as the dominant legitimated mode of knowledge acquisition. All of this occurred, even though, again, only 10% of the society was actually at the level that espoused those values. Likewise, in 1959, about 2% of the population of the United States was at green pluralism (postmodernism); by 1979 (when Jacques Derrida was the most widely quoted academic in America), it had reached 11% on its way to 20%. In the ensuring "revolutions of the sixties," we thus find the emergence of the civil rights movements; the emergence of the worldwide environmental movement; the rise of feminism as a strong political, legal, and personal force; the rise of multiculturalism and "sensitivity movements"; anti-hate legislature, and so forth—again, even though only slightly more than 10% of the population was actually at the green levels that fundamentally embraced those values. But somehow, with this tipping point, the values of the leading-edge level become more acceptable to virtually all lower levels, and widespread societal reforms occur in that wake. (Another reason we are anxiously awaiting 2nd tier reaching 10% of the population.)

But at least that tipping point percentage seems necessary. Thus, throughout the twentieth century, every time that Western industrial democracies attempted to introduce orange social-contract democracy into red societies, the result was always the "free

election" of red military dictators and regimes. Communist insurrectionaries likewise attempted to introduce socialism into similarly red societies, and the result was once again a red military dictatorship. Exterior developments (in social structures and institutions) demand correlative interior developments (in consciousness and culture) in order to be sustained, and simply forcing "democratic" behavior from a population is worthless without correlative interior growth (a fact that can be adequately tracked only by using something akin to an AQAL analysis).

Summary: Eros and Revolution

That is simply another way of emphasizing the fact that most "revolutions," "transformations," or "new paradigms" are, like mutations, usually lethal (or at best inconsequential), not beneficial—which is why the original meaning of "revolution" was "a circular or cyclical going nowhere." But part of the brilliance of Marx (and the Idealists themselves) was to spot that, in the long run, there is an Eros to the evolutionary sequence: a slow, fitful, but unmistakable increase in developmental depth and evolutionary unfolding, and therefore the possibility of new and more authentic modes of being, consciousness, culture, and politics continually emerging at the chaotic, frothy, leading edge of the probability configuration of the AQAL Matrix in any society, and this new emergence (in any of the quadrants) throws the old forms of being into a destabilizing crisis of legitimacy, which, if profound enough, can only be resolved by an increase in authenticity.

(This Eros, or slow but inexorable increase in differentiation-and-integration and therefore increase in wholeness, unity, consciousness, and complexity, is inherent in the very nature of moment-to-moment existence, as the subject of one moment becomes the object of the subject of the next—that is, as it "transcends and includes" its predecessor—and thus each succeeding moment is more unified, more whole, more inclusive, more encompassing—and thus each moment "includes" or "prehends" its predecessors, but also adds a degree of novelty, transcendence, creativity, or emergence, with this overall "transcend and include" of necessity growing in the direction of increasing wholism. Overall, the universe is not winding down—it is winding up—as the simplest look at the evolutionary record—quarks to atoms to molecules to cells to organisms—makes painfully clear. Only when you selectively focus on dead matter in a closed system does disorder increase; but as Schroedinger pointed out, life lives on "negative entropy"—it lives on increasing order. Every now and then the cumulative results of this increasing order forces the system to jump into higher levels of organization altogether, and this we see in everything from stellar evolution to biological evolution to human evolution—Eros is an *intrinsic* force in the unfolding of the Kosmos.)

We saw that in the original Marxist version, a legitimation crisis occurs when the superstructure (or relations of production) no longer mesh with the advances in the base (or forces of production), and therefore the *meaning structures* of that culture are no longer supported in a believable way. In other words, the prevailing worldview—and the prevailing governing bodies—suffer a loss of legitimacy, a loss of believability. The intersubjective meaning (LL) no longer meshes with the interobjective social realities

(LR), and thus a profound legitimation crisis shakes the entire culture.[6] Meaning no longer matches fact; truth no longer matches truthfulness; semantics and syntax are out of whack; base and superstructure no longer support each other—and something has to give, as all four selection pressures swing into play in the violent turbulence of the disturbed AQAL Matrix.

We also saw that in the *scientific world*, this means that the old theories (the old superstructures), which were adapted to, and generated by, the old social practices and paradigms (the old base), now no longer fit with recent and anomalous evidence. A new paradigm (i.e., a series of new scientific experiments and behavioral injunctions) have generated new data, new evidence, and new experiences that cannot be fitted into or explained by the old theories. The old theories therefore suffer a legitimation crisis: their meaning structures (LL) no longer functionally fit with new material evidence (LR). Old semantics and new syntax clash, and only a new series of theories and meaning structures can match the evidence generated by the new modes of scientific production (i.e., the new paradigms that generate, enact, bring forth, and produce new types of data or evidence). A *scientific revolution* (or at the least, profound *reformation*) therefore occurs which ushers in a new series of theories or meaning structures (LL) that are adapted to, and tetra-mesh with, the new modes of scientific data production (LR), so that the new scientific culture (LL) now matches the new social system (LR).

A similar type of legitimation crisis occurs in the academic world of the humanities, not just the sciences. To give only one example, over the last thirty years, there has been a particularly influential type of data production machine (or techno-

economic injunction), but one that was itself malformed to a significant degree, namely, the behavioral injunction and set of social rules for deconstructing texts (or deconstructing systems of signifiers without an equally widespread mode for putting something positive in their place: it was merely deconstruction without reconstruction). This malformed mode of data production and behavioral injunctions (or paradigms) supported a worldview of faux egalitarian postmodernism (i.e., a malformed mode of the green wave often known as "the mean green meme"). This mode of production or social behavior practice helped to determine the consciousness of the humanities professor and his or her unsuspecting students. However, as new forms of social practice and new theories based on them began to generate more integrated and more authentic modes of consciousness and culture, the worldview of extreme postmodernism has been thrown into a profound *legitimation crisis*, which itself can only be overcome by a revolution or reform to more authentic, more integral modes of consciousness, culture, and complexity in the academic landscape. This particular revolution—*an integral age at the leading edge*—is, of course, only now beginning to form (and is one of the main themes of this essay).

In *politics* at large, a legitimation crisis means that there is a new and rising culture that does not believe the ideas and practices of the old governing bodies. The new and rising culture possesses a degree of depth and complexity that is beyond the grasp of the old governing bodies, and therefore the entire structure of governance suffers a legitimation crisis for the new culture (at the hands of Eros). A political revolution— perhaps violent (revolution), perhaps not (reform)—will therefore have to occur in order

for new governance systems to take into account the new increases in depth of cognition and technology. (As we have often put it, the only cure for a profound legitimation crisis —in any domain, scientific to academic to political—is an increase in authenticity.) If those revolutions/reforms are successful, the new (and more authentic) governance systems will possess a sturdy legitimacy for the new (and more authentic) culture. Failing that, there are only culture wars, as various cultures and subcultures vie for ruling legitimacy.

All sorts of pleasant and unpleasant solutions to internal culture wars have historically been devised. A fun one exercised by mythic believers was the mass murder of magic witches (possibly hundreds of thousands of them in Europe's medieval history, as mythic Church battled magic pagans). But many solutions were very positive: the United States *Constitution*, for example, stemming mostly from the rational probability wave (orange), demanded that, although you are allowed to have any private beliefs that you want—primitive archaic, egocentric magic, or ethnocentric mythic—nonetheless in the public space you *must behave* according to rational, worldcentric laws. The democratic *Constitution* was more authentic (greater depth for greater span) than the previous aristocracy, and thus time's arrow was on its side (and time's arrow is indeed an arrow with directionality, as Prigogine pointed out in his amendments to the second law of thermodynamics, because it works to create "order out of chaos"—i.e., Eros). Of course, as we said, in order to support such an arrangement, a significant percentage of the population itself (and not just the revolutionary elite) must be at a sufficiently evolved wave of consciousness (in this case, orange or higher), or the social contract will simply

degenerate into red regimes and amber dictatorships of one variety or another. A

significant percentage seems to hover around 10%, which, although modest in size,

seems enough to set off a tipping point that sediments the leading-edge's values (in, of

course, watered-down versions) throughout the lower levels.

The advantages that any greater technology and deeper cognitions have over their

predecessors were many (in addition, of course, to the new forms of pathology introduced

by the new modes: the dialectic of progress). We were looking at the example of

horticultural-mythic over foraging-magic in its positive forms: one central advantage was

that the mythic worldview had a relatively greater depth (which could include and

embrace a larger number of individuals and therefore unite many tribes into a social

communion much larger than their merely kinship lineage ties which dominated foraging

modes). This relative increase in cognitive depth was shared by an increase in the

technological depth of horticultural over foraging (evidenced in a higher degree of

complexity and integration in the social system)—which is why foragers by the droves

adopted horticultural modes wherever they were introduced.[7] And once the new

worldview arose to match the new base (e.g., once mythic supplanted magic), then the

higher mythic worldview and the deeper (more complex) horticultural mode were in

mesh; they reflected different dimensions of the same probability wave, and thus could

tetra-evolve more harmoniously…. (until industrial modes arose to displace

horticultural-agrarian, and the old mythic-membership worldviews were challenged by

the rising rational-egoic worldviews, and so would go yet another round of world-

wrenching cultural and social wars of transformation, whether by overt revolution or quieter reform….)

The advantage of any higher worldview is not in the "include" but the "transcend" side of the equation: there is an Eros to the sequence, such that the transcendental value of the new and higher worldview moves into a new probability space (or a new niche) where it can flourish outside of old Kosmic habits (while initiating, in that new niche, its own forms of new Kosmic habits)—just as, for example, mammals found a new space outside of reptilian probability waves (although the mammalian brain, of course, transcended and included a reptilian brain stem, which transcended and included vegetative life functions, which transcended and included inorganic molecules, which transcended and included atoms… all the way back to the Big Bang). The new and deeper/higher worldview is therefore selected and carried forward in the new probability space, even though there are fewer holons there than in the previous space (whose Kosmic habits have now become subcomponents of the new holons).

Thus, foraging-magical modes of governance gave way to agrarian-mythic modes of governance, which gave way to rational-industrial, which is now on the cusp of pluralistic-informational. But even though the leading edge takes control of the major forms of governance systems, *all* of the previous waves remain as sub-pockets in the culture, even while the culture itself, on the whole, is subjected to the new governance system. Individuals and subcultures span the entire spectrum of the different waves of consciousness (up to the average, and a few beyond). And that is the major source of internal culture wars in the "layer cake" of culture.

In this summary it is therefore important to repeat: What Marx failed to see is what virtually everybody else has failed to see in this regard: it is not that each society has a single monolithic technological mode and a single monolithic worldview, and that the two somehow have to match up. Rather, each society is a spectrum of AQAL actualities: there are individuals at every level of the spectrum of consciousness, at least up to the average level of that culture (with a few moving beyond). And there are pockets of every mode of techno-production up to the leading edge: even in industrial societies, there are red street gangs foraging for their existence, and the farmers of Kansas are still out there planting seeds. So there is no single base and no single superstructure, such that an internal contradiction between them could propel the major transformations that have marked history. Marx's general idea—that of a mismatch between LL and LR causing internal communal contradictions and tensions—is still true, but the mismatch spans the spectrum of consciousness up to the highest average wave in that society, and in all four quadrants with their many waves and streams (all of which have to tetra-mesh in the AQAL configuration, or something has to give). It is still true that a given culture has a dominant mode of discourse, or a dominant mode of resonance, usually consisting of the highest plus most influential developmental level in its nexus-agency, which is enough to identify the culture at large as "magic" or "magic-mythic" or "mythic" or "rational" or "pluralistic" (and in the future, "integral"). And when this dominant level was first emerging, it was almost always as part of a clash between the old correlative techno-economic modes and the new modes with their "rising culture" (the culture identified with the newly emerging higher cultural level). That aspect of general Marxism is still

valid. But the rest of the culture is subdivided into numerous subcultures (the "layer cake"), each at a different level of LL worldview and LR technology (although now, the LL worldview can also utilize virtually any level of LR technology in existence, since it is only a material artifact whose use does not demand change in levels of consciousness and culture—hence, e.g., tribal red consciousness and orange gas chambers).

The emergence of the Integral levels of consciousness and culture will prove to be a truly, deeply, and genuinely revolutionary occurrence, simply because, in all of human history, there has never been a culture anywhere on the planet whose dominant nexus-agency was truly all-inclusive, non-marginalizing, non-dominating, and non-oppressive (as an Integral level is, this "monumental leap in meaning"). This will be such a radically new and unprecedented mode of societal organization that we literally have no historical precursors that could give us any idea of what this might be like; it promises to be such a wildly new expansion in inclusivity, embrace, care, consciousness, differentiation-and-integration as to be virtually unimaginable by any of today's standards anywhere in the world.

The Idea of Progress

Only such an AQAL interpretation can allow us to handle the *idea of progress* in a way that makes sense of actual historical realities. The problem with virtually all previous notions of progress—from the Enlightenment to Marx to present-day liberal democratic versions—is that they made the wholly unwarranted assumption that society has merely a single basic worldview and a single basic techno-economic mode, and

therefore history must be a progressive, step by step increase in liberal values, with single-step techno-economic modes, clunking up the great ladder of linear progress. Thus, if the Enlightenment represented the emergence of industrial-rationality over feudal-mythology, then modernity must embody nothing but progress, pure and simple.

But, of course, a society whose governance system embodies industrial-rational modes (orange), still has pockets of archaic, magic, magic-mythic, and mythic subcultures (infrared, magenta, red, and amber). All cultures are this "layer cake" system, or a percentage mixture of different levels of consciousness evolution (although each specific culture or subculture usually has a dominant mode of discourse or resonance, representing the most powerful or significant level of consciousness present in that subculture and governing the "nexus-agency" of that subculture). Moreover, the artifacts or products of orange can now be used by pre-orange waves. Orange moral consciousness, for example, demands that all people be treated fairly, regardless of race, color, sex, or creed. Orange cognition is also powerful enough that it has to the potential to produce assembly line gas chambers, but orange moral consciousness would never use them. But tribal-red moral consciousness can easily seize orange products and artifacts and will gladly use them—hence, Auschwitz.

In other words, "levels and lines" (different developmental lines—cognitive, moral, emotional, spiritual, etc.—possess different rates of development and thus possess different levels of development)—which becomes an important ingredient in the AQAL analysis of any idea of "progress," because the higher the level of development in any line in a society, the greater the possibility that those higher products can be seized by

lower levels of development in other lines. Thus, the greater the genuine depth in any society—that is, the more there is genuine, real, authentic progress—the more types of pathology that can follow in its wake, due to "levels and lines." This allows us to track the "good news, bad news" nature of all social transformations, and not fall into the only two widely accepted options, which either see *only* progress or deny *all* progress and see nothing but ruptures.

In short, no matter how "high" a society is in terms of developmental depth, every human being must start its development at square one, and thus the greater the depth, the more transformations an adult human must undergo, and since each transformation can miscarry, then the more problems that can occur the more advanced the society becomes. An indigenous tribal society at magenta magic only has one major transformation that a human must navigate to be mature—he or she must transform from infrared to magenta (and indigenous societies recognize when that transformation goes wrong and produces illness, which the shaman or medicine man or woman is trained to deal with). But a postmodern human has at least 5 major transformations to undergo (sensorimotor-infrared to magenta-magic to red-magic/mythic to amber-mythic to orange-rational to green-postrational—and something can wrong at every one of those stages! Postmodern societies can be sick in ways indigenous societies literally can't even imagine). Even in a society whose governance systems were at leading-edge turquoise, with enormous depth and wisdom, individuals would still have begin at infrared, then magenta, then red, amber, orange, green, teal, and finally turquoise—if they develop fully. But many individuals will remain at junior waves of development, which is certainly their right in

all post-orange societies. But just that fact accounts for the peculiar distresses of advanced cultures: the higher the culture, the more stages of development involved, and since every stage has its own pathologies, then the higher the culture, the more ways you can be sick. Thus, good news, bad news.

(The same "layer cake" phenomenon is behind one of the most widespread and *inaccurate* interpretations of modernity and religion. Namely, almost every commentator on modernity—noticing the sharp rise of rational science and the drop in mythic religion —pronounced the eventual and complete "death of religion"—only to be met with a continued presence of mythic religion, long past the point where it was supposed to have disappeared, whereupon commentators began noticing this and announcing that all previous commentators had been wrong—with none of them understanding why, which is that everybody is born at square one and begins their development from there, so that before a person enters any rational science stages, they have to pass through mythic religious stages—and many of them undergo arrested development at those stages and hence occupy mythic religion as a station in life. This will *never* go away, although, if the cultural center of gravity continues to rise, then the average level to which individuals develop will also continue to rise—to rational science or higher—and this would involve the decrease in the overall percentage of individuals remaining at mythic. But they will never simply disappear, because mythic is a genuine stage in overall human growth and development.)

Accordingly, due to "levels and lines," we can indeed allow both the idea of progress in any line, and the fact that higher cultures showing authentic progress can

nonetheless be subjected to barbarities that primal cultures literally could not even imagine.

This fact also leaves all societies open to internal culture wars, as pockets at different waves of consciousness vie for legitimation. As we have seen, in today's industrialized West, there are three major subcultures still at war: the traditionalist mythic-amber wave (best adapted to agrarian-feudal modes), the modernist orange-rational wave (best suited to industrial mass-production modes), and the postmodernist green-pluralist wave (best suited to pluralistic informational modes). The governance systems of Western societies are in the slow and painful transition from industrial-orange to informational-green (with significant push-back from traditional mythic-fundamentalists). And the major hazard in today's world is that the green wave is emerging in too many instances in its malformed mode, with its AQAL Matrix significantly fractured by a flatland pluralism that erases depth from the Kosmos wherever it finds it. But that's another story, the story of boomeritis, yes?[8]

Summary

We have covered a lot of ground up to this point. Here is a quick summary of the central conclusions:

- Each holon has at least *four major dimensions of being-in-the-world*: subjective ("I"), objective ("it"), intersubjective ("we"), and interobjective ("its").

- In the subjective dimension (UL), the moment-to-moment nature of flowing existence involves *prehension*—or this moment's feeling of the previous moment—which is a holarchical transcend-and-include of the previous moment. This is one example of the fact that each dimension of being-in-the-world *inherits* a type of influence (or Kosmic karma) from its predecessors.

- In the objective dimension (UR), the moment-to-moment nature of flowing existence involves, among other things, *morphic resonance* and *formative causation*, where the objective form of a holon resonates with similar forms across spacetime, influencing them to some degree (just as a vibrating string causes other similar strings to vibrate at the same frequency. The two strings vibrating together is called morphic resonance, the one string causing the other to vibrate is called formative causation). In the UR dimension, this inheritance appears most essentially as the past forms of an individual holon influencing its present form. This UR influence, as we will see, also appears to involve various types of subtle energies. Another equally important form of UR inheritance is *autopoiesis*, whereby living holons self-organize and self-reproduce, so that a holon's previous moments of existence are inherited by its subsequent moments of existence.

- In the intersubjective dimension (LL), the moment-to-moment nature of flowing existence involves the inheritance of a cultural background of

shared meanings and mutual prehensions. In essence, this is the basis of *habitus* and *cultural memory*.

- In the interobjective dimensions (LR), the moment-to-moment nature of flowing existence involves collective morphic resonance and collective formative causation that sets up various morphogenetic grooves that will strongly influence, and sometimes directly guide, the unfolding development of individual holons that arise in mesh with those grooves. This is simply a subset of the general phenomena of *systems memory*.

- Thus, all four dimensions of being-in-the-world are influenced to some degree by their predecessors.

- Put differently, each holon inherits, as a given or *a priori* ground, the AQAL matrix of the previous moment.

- These inheritances involve deep patterns of being-in-the-world that are not archetypal givens but *Kosmic habits*.

- Kosmic habits are not rigid concrete structures but *probability waves* of finding a particular type of holon in a particular spacetime locale in the creatively unfolding AQAL matrix.

- In order to survive, each holon must *tetra-mesh* with its AQAL inheritance or face extinction. This tetra-evolution involves *selection pressures* in all four dimensions of its being-in-the-world (truth, truthfulness, meaning, functional fit—indeed, pressures from all of the elements in the AQAL Matrix).

- If the AQAL Matrix of this moment inherits the AQAL Matrix of the previous moment, it also adds it own spark of *creative novelty*, *emergence*, or *transcendence*. Each actual occasion is "*transcend and include*," giving rise to the Whiteheadian holarchical nature of each moment, which not only inherits or prehends its past, but transcends it by adding its own moments of creative novelty and newness.

- Therefore, evolution is marked not just by the inheritance of past forms in tetra-mesh, but the emergence of new forms in transcendental leaps of creativity. As Jantsch summarized it, evolution is "*self-organization through self-transcendence*" (with "self-transcendence" being one of the many names of "Eros").

- These emergent leaps therefore create new niches in the AQAL matrix marked by probability waves of *greater depth*, consciousness, complexity, and inclusive capacity.

- These niches take on specific forms as Kosmic habits when that space is *quadratically enacted* by a sufficiently large number of holons (which then pass on this inheritance to subsequent holons, who will transcend and include it).

- Higher potentials become concrete actualities through this process of *creative enactment in tetra-mesh*. At no point are *pregiven* levels, structures, or stages required.

- Whenever a new niche is in the process of tetra-emergence, the old niche is thrown into a *legitimation crisis*, which can only be resolved by an increase in authenticity—or a *transformation* to the new niche of greater depth, consciousness, culture, and complexity.

- Authentic vertical transformations to greater levels of depth do not automatically spell progress, however, because higher developments in some lines can be accompanied by lower developments in other lines (a phenomena called *levels and lines*, whether in individuals or societies).

- For this reason, historical development is always a painful, dialectical mixture of "*good news, bad news*"—the "dialectic of progress"—as individuals and subcultures in the society span the entire spectrum of consciousness in all of its available waves, in both their healthy and unhealthy forms.

- Thus, the greater the depth of any individual or culture, the more *potentials and pathologies* available to it.

- An *AQAL* or *integral analysis* of all of those factors very likely represents the best chance of increasing the good news and diminishing the bad news in any AQAL configuration (in an individual, family, society, species, planet, or Kosmos), because only an integral analysis takes into account the widest variety of evidence from the greatest number of sources, and is therefore the least exclusionary and least violent approach to self-and-other understanding.

The fact that each moment's AQAL configuration is handed to the next moment as a karmically inherited past fact—which the next moment must therefore include or preserve it in its own amalgamated makeup—doesn't prevent the next moment from also adding its own bit of freedom, newness, emergence, creativity, or transcendence. Put differently, each new moment has a degree of *interpretive freedom* in the face of the factual givenness of the previous moment. It is this transcendental freedom, driven most generally by Eros, that allows the evolutionary sequence itself to show continued, inexorable "transcend and include"—meaning increasing wholeness, increasing differentiation-and-integration, increased unity, increased care and concern, increased consciousness, and increased complexity. The universe is inexorably winding up, and this "winding up" is the very nature of time's arrow that governs the entire manifest realm—including human beings' own ongoing existence in this world. It's time to look closer at this astonishing fact.

Notes

1 See Gerhard Lenski, *Human Societies*.

2 More technically, the stage beyond Magic is called Magic-Mythic. It is something of a transition from Magic proper (magenta) to Mythic proper (amber). "Magic" means where the source of "miracle" power is located. In pure Magic, the self itself is capable of performing miracles—if I do a Rain Dance, this will (magically) force nature to rain. If I make a doll representing a real person and stick a pin in the doll, the real person will (magically) be hurt. But by the time of Mythic, humanity increasingly understood that it alone could not actually perform miracles; however, supernatural beings—God, Goddess, Spirit, spirits—could perform miracles for me, if only I know how to approach that Spirit properly—what ritual, rite, or prayer would please that Spirit and make it bring in the crops, make it rain, insure the day's hunt, and so on. In between those two there was "Magic-Mythic," where humans could still perform miracles, but only special types of humans—very powerful ones. Spiral Dynamics actually calls this stage "PowerGods," and that's a good name for it. Mommy, for example, could turn the yucky spinach into candy if she wanted—she's a PowerGod. Every leader of all of the major military Empires that began to spread across the globe at this time historically was thought to be, literally, a God—a PowerGod. In talking of the shift from foraging to horticultural, we are talking of the shift from Magic to Magic-Mythic or PowerGods.

3 A legitimation crisis can happen, of course, regardless of the level of the worldview. Even highly authentic worldviews must seek and find legitimation. Authenticity is no guarantee of legitimacy, nor vice versa. See *A Sociable God*, CW3.

4 This is not to overlook the hundreds and thousands of micro-transformations or micro-increases in depth that can and often do happen in individual and societal affairs. It is simply that profound macro transformations (e.g., foraging to horticultural to agrarian) are relatively rare.

[5] As previously noted, what remains of the Marxist argument, when viewed through an AQAL lens, is that the Lower-Right quadrant, although not the sole determinant of men and women's consciousness or being, is the single greatest determinant of the average level of consciousness in the Lower Left. Thus, for example, a techno-economic mode of agrarian in the LR will be the single strongest (but not sole) factor that will predispose and support a traditional mythic worldview in the LL as the most *average* mode and stage of development for that culture (and, indeed, this is what we see generically around the world, including in the U.S., where the farmers of Midwest—and its agrarian LR techno-economic mode—have a strongly average traditional, fundamentalist, mythic-religious worldview, with a correlatively conservative tendency; while the LR-industrial mode Northeast has a strongly average orange rational worldview, and is more likely to be liberal; the Northeast also has a higher proportion of LR-informational mode bases, and thus a consequent green average mode of consciousness in those areas, and hence likewise liberal or post-liberal [postmodernist] in tendency). There are, of course, any number of exceptions, but these are sturdy conclusions vis a vis averages, tendencies, and general modes. I asked Charles Taylor [[[]], noted historian of human societies, what he thought of this notion (that "the Lower-Right techno-economic mode of production is the single greatest—not sole— determinant of the *average* level of consciousness in the Lower Left"), and he thought for a long time and replied, "That's exactly right."

[6] That is part of the AQAL reconstruction of Marx and his contributions: the importance of Marxist-historical materialist *component* is that it includes the Lower-Right dimensions of social systems and the institutional power they embody. What is entirely lacking in new paradigm and postmodern versions of "transformation" is that they usually rely on subjective and intersubjective factors alone, thus often totally overlooking objective and interobjective realities. Further, as we will see in our historical survey of the Lower Right (see **Excerpt E**), Marxism is a form of **developmental systems theory** in the broadest sense (or interobjective forces of production and relations of production: that is, relations of signifiers and systems of syntax). This can only be adequately analyzed using an AQAL Framework.

[7] One of the many insuperable difficulties with the eco-primitivist view—which sees foraging tribes as an ecological, social, and political Eden—is that such a view has a very hard time explaining why, if that is the case, the foragers themselves abandoned that mode and adopted the horticultural mode in virtually every case it was offered. Why would cultures by the droves abandon such an alleged heaven? To voluntarily jettison heaven, either the foraging tribes were incredibly stupid (which they weren't), or they were not in any real heaven at all (but more like a relative hell they were all too eager to transcend, which transcend they did via horticulture). The history of ecological damage to this planet is largely a history of unintended consequences—no society intentionally set out to ruin the environment—the Mayans, for example, would not have practiced slash and burn if they knew the resulting rainforest depletion would directly result in the death of their civilization. But it wasn't even until the late modern era that humanity had a scientific understanding of ecology itself, and thus understood for the first time its crucially important networks of interaction connecting virtually all living organisms in vital life-supporting meshes. By then, the industrial revolution had begun a series of massive unintended consequences (pollution to toxic wastes to hot-house gases) that would make it a horse race between ecological understanding and planetary destruction. We are presently awaiting the results of that race.

[8] Boomeritis is a form of the pre/post (or pre/trans) fallacy—the confusion of *pre*-conventional and *post*-convnetional modes simply because both are *non*-conventional, and thus appear similar to the untutored eye. The Boomer generation was so anxious to move beyond (or transcend) the rational, conventional, orthodox ways of doing things—which the Boomers believed were corrupt, degenerate, and inauthentic in almost every way—that they embraced not only post-conventional modes but pre-conventional modes, and thus confused "all of us" with "me" on too many occasions. Combined with the rampant nihilism and naricissism of the green postmodern wave (and particularly its mean green meme form), the Boomer's ended up as the "Me" generation, and deconstructed every human knowledge discipline and social practice, prior to them, as being helplessly inauthentic and oppressive, and replaced them with "the wonder of being Me." Since all previous systems were deconstructed, but very few were re-constructed, the results were indeed, not only a rampant narcissism (e.g., Christopher Lasch, *The Culture of Narcissism*) but a blood-letting, depression-inducing, values destroying nihilism. "Me" and "irony" is all that remained ("irony" being the saying of one thing will meaning its exact opposite —"Oh, hey fellow, nice tie"). All previous approaches to knowledge and reality were pronounced dead—the death of man, the death of history, the death of humanities, the death of science, the death of rationality, the death of spirituality, the death of being—leaving, again, only that tag team from postmodern hell, nihilism and narcissism.

It is only in the last decade or so that to that list, we could finally add, "the death of postmodernism"—probably officially with Terry Eagleton's announcement, in the annual pomo literary conference a decade or so ago, that "postmodernism is as dead a movement can be." What we are looking for now is the return of Big Pictures, the return of value, the end of mere irony, the end of rampant narcissism, the discovery of good-enough universals, and the evolutionary glory of continuing growth, development, and novelty touching all aspects of the Kosmos. We are looking, that is, for more Integral and Comprehensive Worldviews.