Table of Contents

See Appendix REF – A Reformation Example

"The priesthood have, in all ancient nations, nearly monopolized learning. Read over again all the accounts we have of Hindoos, Chaldeans, Persians, Greeks, Romans, Celts, Teutons, we shall find that priests had all the knowledge, and really governed all mankind. Examine Mahometanism, trace Christianity from its first promulgation; knowledge has been almost exclusively confined to the clergy. And, even since the Reformation, when or where has existed a Protestant or dissenting sect who would tolerate a free inquiry? The blackest billingsgate, the most ungentlemanly insolence, the most yahooish brutality is patiently endured, countenanced, propagated, and ap-plauded. But touch a solemn truth in collision with a dogma of a sect, though capable of the clearest proof, and you will soon find you have disturbed a nest, and the hornets will swarm about your legs and hands, and fly into your face and eyes."

– John Adams, <u>The Letters of John and Abigail Adams</u>
[Letters to John Taylor, 1814, XVIII, p. 484]

Monopoly on Learning: Mr. Adams letter suggests an intellectual view in his time that the pro-gress of his age was a long-term process of wresting the monopoly on knowledge away from the clergy – noting also that the Church provided legitimacy to the Crown and the elite. I believe he shared this belief with Denis Diderot, who was born 30 years before Thomas Jefferson.

GGDM makes the standard science-fiction assumption that knowledge is empirical, secular, and widely available – when I was in 11th grade, before the internet, my astronomy teacher taught us how to build an atomic bomb and worked through the equations as an extension of the lesson about the Sun – that is, mirroring the conditions of our time, and that something amounting to societal collapse would be required to restrict knowledge to a chosen group, such as the clergy, shamans, mystics, or such (e.g., Alfred Coppel, "The Rebel of Valkyr" (1950)). However, par-ticipants are welcome to explore situations where knowledge and education are restricted.

The World Turned Upside Down: *Listen to me and you shall hear, news hath not been this thousand year...* You have reached a milestone in gaming; no other game has ever attempted to model Reformations or Kairotic Moments. I play civilization games, I have played games about The Reformation (e.g., GMT's Here I Stand), but I have never seen a civilization game, no mat-ter the scale, that addressed reformations. Most do not even think of reformations as a process, but instead, limit the term to a specific historical period and geography called The Reformation.

A game design is bounded by the mechanics imagination of the designer; Reformation as a social process is a direct result of the game mechanics designed to answer the original question asked in GGDM (see The Problem of Immersion, 1 Culture, p. 352, *supra*). Unfortunately, attempts to model a Reformation in GGDM will be required to conform to the game, to make the story emer-gent, and will only vaguely resemble a historical reformation-like process. Like Culture in GGDM, Reformations will seem mechanical; they are, after all, a set of game mechanics de-signed to bridge the gap between Fundamental Realities and the current game milieu, to simulate macro- and systemic-level changes that eventually roll into the next civilization's Fundamental Realities. They are the echoes of the footfall in a large empty hallway, not the footfall itself; this is also true of Kairotic Moments in GGDM. It is up to the participants to provide whatever color and quirk is necessary to make a good story.

✓ In the original vision of Reformations and Kairotic Moments, probably before 2015, I had some vague idea that Reformation would transition a Major Race in the game

into an 'Elder Race' (probably in conjunction with 3rd Era technology). However, there was never a mechanic written for it, and I had no specific idea of what Elder Race would mean in the game. Like 'prophecies' as a mechanic for Kairotic Moments, and ages and epochs as measures in the game, the idea of Elder Races as a position status went by the wayside, but still might be useful for creative participants.

➢ General Systems Collapse: *Warning, at any point after this, GGDM may begin general systems collapse.* Revisiting the discussion in Diminishing Returns, 2 Disruption, p. 269, *supra*, regarding problem solving, complexity and diminishing returns (e.g., Tainter) in GGDM game design, it is the game mechanical complexity of the GGDM simulation (e.g., Thorngate) and the imagination of the designer that enables the GGDM to model Reformations and Kairotic Moments. Is the problem solving a return that validates the complexity of GGDM?[1]

✓ The phenomenology of GGDM to the designer: Every time I work on GGDM, it gets bigger, every time I open a file, something gets added, modified, or moved, rarely is anything subtracted. GGDM consumes time, space, and worlds, even Galactus trembles before the onslaught. The phenomenology of GGDM to potential players... ?

"We have always watched the stars and mused about whether there are other beings who think and wonder. In a cosmic setting vast and old beyond ordinary human understanding, we are a little lonely. In the deepest sense, the search for extraterrestrial intelligence is a search for who we are."

– Carl Sagan, Cosmos, Episode 12

Enculturation of GGDM: Throughout GGDM, I have stressed repeatedly the idea of scale. I believe that one of the main impediments to humanity is the lack of appreciation of scale based on our limited point of view – and I don't mean merely taking the long view of things, which is the subject of macro-history and macrosociology and the various studies in evolution – but instead, to *grok* as a species what we know scientifically and mathematically about the universe. How do we get there? I do not know; it might be a physiological change in the state of humanity, or it might be a long slow sociocultural development. It took most of the 20th Century for the main pre-WWII quantum physics discoveries to trickle down to the consciousness of Western civilization. Considering the enculturation of Protestant ideas over the last 500 years, what appreciation might our descendants have around 2300 A.D.? And only well after the year 2000 have we begun to make engineering use of quantum entanglement in communications.

✓ "A doctrine or philosophy insinuates itself into culture by means of rumor as much as by persuasion occasioned by reading its founding, or even subsequent, texts." – Theodore Dalrymple, Admirable Evasions: How Psychology Undermines Morality (2015), discussing enculturation of Freudianism.

I am aiming for nothing less than enculturation of the ideas of GGDM over the next century or two; GGDM would be easy to plagiarize, if there is anything worth stealing – few will have read it, and it won't be in plagiarism software check databases editors use now – see Truman quote.☺ Surprised? Aside from being completely absurd – as James Baldwin said, "Action is a lack of balance. In order to act you must be somewhat insane. A reasonably sensible man is satisfied with thinking." – it should not be: As a practical extension of Kant's Categorical Imperatives or universal legislator (I am sure this was said long before Kant), why would one present a serious

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1 Reformation – Reformation of History

philosophical or intellectual work if the author didn't desire to see the ideas contained therein enculturated? Faith in one's own ideas, perhaps, even if they cannot now be proven empirically?

- ✓ Sometimes I feel like Kenny Rogers' song "She Believes in Me" (1978).

In other words, one who presents ideas they don't actually believe, as if serious, is a charlatan (see discussion of Leibniz' 'Best of All Possible Worlds,' PANGLOSS DOESN'T VISIT OFTEN, 1 Fallen to Earth, p. 1495, *infra*). And how many people go to that much effort for falsehoods (e.g., Adolf Hitler, the Big Lie, see Propaganda and Cartoonworld with feature quote, 1 Diplomacy, pp. 1091, 1106 respectively, *supra*)? As a corollary, we must believe that the Nazis and others who have put forth ideas *that we find abhorrent* or that have been subsequently rejected, did so with sincere internal belief in their ideas, no matter how horrific they seem to us now (and who is to blame for that?); sometimes it is difficult for us to accept that those people really believed those things when history (see Encomienda and Pragmatic Ethics discussions, 3 Order, pp. 549-551, *supra*), empiricism and logic have shot them so full of holes. Not all *fourth order facts* are happy social phenomenon.

"There is nothing new in the world except the history you do not know."

– Harry S. Truman, 33rd President of the United States of America

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"The Reformer is always right about what's wrong. However, he's often wrong about what is right." – G.K. Chesterton

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The Human Thing: To the extent that I might be considered ever a 'reformer' of anything (e.g., macrosociology), I believe that G.K. Chesterton was spot on correct, I know more about what is wrong than what is right. It's the human thing, we can more easily list what is not than what is, we most often decide truth by what is not true than by what is true, we are not inherently *a priori* beings. See discussion of (T) or (F) Conflict Checks, 4 Government Titles, pp. 628, 633, *supra*.

A Reformation of History: The Reformation, as commonly taught, is a specific period of European history describing the violent Protestant revolt against the Catholic Church-legitimized imperial rulers that began in 1529, when German cities and princes protested an edict of the Diet of Spires that was intended to destroy the Lutheran movement and 'ended' in 1648 at the conclusion of the Thirty Years War. The Reformation 'followed' the Renaissance, was followed by the Wars of Religion and preceded the Enlightenment (1648-1815[2]) as taught in Western history.

- ✓ The seeds of the Reformation may have already formed as early as the Cadaver Synod in 897, where the charges against the *cadaver* of Pope Formosus amounted to a declaration that the people have been corrupted if they express a preference to have a particular bishop rule them and second, that no one not approved by the church could practice ecclesiastical office. Yet, it was acceptable for political and ecclesiastical factions *in Italy* to determine by bribery, struggle, murder, theft, adultery, and deceit, the next Pope of all Roman Catholics in the world, which still tentatively included the Eastern Church since the Great Schism didn't occur until 1054.

Although there is a specific period of time, that was recognized and named in hindsight, as The Reformation, there is no basis to hold that this was the only 'reformation' of Western civilization

of that magnitude. Thus, when there are at least two widely separated periods *in Western history* that could equally be called 'Reformations' with a capital "R," a 'Reformation' becomes a recognizable historical cycle rather than the singular historical period which it has been presented for the last several hundred years.

Because the result of a reformation is the shift of the most fundamental widespread views of reality, the reformation usually involves conflict on many levels (political, economic, religions, etc., the old saying "may you live in interesting times" was not intended to be a blessing), and is only generally recognized for what it is in historical hindsight. The catalyst for the reformation is the perceived 'collapse' or decay or revolt against the preceding order of the world (but should not be confused with a mere revolution, most revolutions don't really change anything, only destroy, and then fade before they can fully replace the old order). For example, the time period known as The Reformation was, in large part, a result of the collapse or decay of the feudal system, a class struggle between the established nobility and royalty and the new aristocracy and up and coming powers, and ultimately, a social and political revolt against the deeply corrupted Church which upheld and legitimized the old order:

- ✓ "There are monasteries where there is no discipline, and which are worse than brothels – *ut prae his lupanaria sint et magis sobria et magis pudica*. There are others where religion is nothing but ritual; and these are worse than the first, for the Spirit of God is not in them, and they are inflated with self-righteousness. There are those, again, where the brethren are so sick of the imposture that they keep it up only to deceive the vulgar. The houses are rare indeed where the rule is seriously observed, and even in these few, if you look to the bottom, you will find small sincerity. But there is craft, and plenty of it – craft enough to impose on mature men, not to say innocent boys; and this is called profession. Suppose a house where all is as it ought to be, you have no security that it will continue so. A good superior may be followed by a fool or a tyrant, or an infected brother may introduce a moral plague. True, in extreme cases a monk may change his house, or even may change his order, but leave is rarely given. There is always a suspicion of something wrong, and on the least complaint such a person is sent back." – Desiderius Erasmus, Letter to Lambertus Grunnius (August 1516) (discussing the rule of celibacy in monastic orders).

- ✓ "There is no doubt about Martin Luther's marriage, but the rumour about his wife's early confinement is false; she is said however to be pregnant now. If there is truth in the popular legend that Antichrist will be born from a monk and a nun (which is the story these people keep putting about), how many thousands of Antichrists the world must have already!" – Desiderius Erasmus, Letter to François Dubois (13 March 1526).

  - ▪ If there is one case where we ought to be happy that the bell cannot be unrung, it is that we have the critical writings of Desiderius Erasmus. The Church has not been able to un-ring Erasmus for 400 years. It is quite surprising that he was not rung up on some heresy charge and dismissed or muzzled during his lifetime. Notably, though loyal to Rome, and awarded with permanent dispensations, he always stayed a safe distance from Rome in his travels. In his travels through Holland, Belgium, southern England and northern France, he also, perhaps intentionally, avoided the hotbed of Protestant controversy, the German city-states and principalities.

The Reformation was not the only, there probably have been many, smaller, more localized processes, however, the one other event in Western history that reaches and perhaps surpasses the scale of The Reformation (deserving of a capital "R") are the two centuries preceding and following the 'fall' of the Roman Empire, which signaled the final 'passing' of classical civilization. This I call the First Reformation; the Church, contrary to some belief, was not the cause of this collapse, the symptoms were already present, but the phenomenal (and unprecedented) spread of the Church, far transcending the time and place of the events giving rise, through the areas of the late Roman Empire, the conversion of the Germanic and Goth invaders, made the Church the major defining force of the new worldview following the First Reformation.

Interesting to compare circumstances.

- ✓ The Reformation associated with the fall of the Roman Empire was a result of a combination of centuries of internal power struggles in the Empire coupled with massive invading human waves from the East.

- ✓ The Reformation of Martin Luther was an internal religious matter stemming from centuries of Church corruption and abuse of clerical legitimacy amid European poverty, although Europe also faced the threat of Ottoman military invasion up to 1683.

Working definition of a Reformation, stripped of historical context: A cyclic process of protracted struggle between the significant minority and those who hold political and military power for certain very fundamental changes that will eventually alter society (or the system) at all levels through future generations. A Reformation is more than just a struggle for political power or legitimacy, or economics, in civilization, though all play a significant part.

- ✓ See further discussion, The Core of Christianity, 1 Kairotic Moments, p. 1423, *infra*.

➢ Fracture and Complexity: A Reformation should not be confused with a general systems collapse or societal collapse (e.g., the Samnites', Aztecs' collapse were not reformations!). A Reformation is instead a struggle in problem solving that usually leads to both fracturing of the society and new layers of complexity to solve the problems. A Reformation is not a rewrite. The reformation of the West did not end with the historical period called the Reformation, and neither did the Church end, but is much diminished now that other problem solvers have taken bits of its role over the centuries, e.g., what we now call Family Law and Orphans Court was wrested from the Ecclesiastical Courts through the 16th to 18th Centuries.

- ✓ Reformations and Kairotic Moments in GGDM were significantly reformed late in 2018 based on better intellectual tools and deeper knowledge of the subject matter. I am now entering the middle ages.

➢ Understanding the Question: One of my professors – and I am sorry that I do not recall with certainty which one, but it could have been Dr. Paul T. Mason, opined that in the Reformation, the Catholics simply did not understand the question asked by the Protestants: How do I know I will be saved? To the Catholics of that milieu, one did not have a personal relationship with God, one had a relationship with the Church, which was God's intermediary, the House of God on Earth, and one was assured of ascension in the afterlife by being faithful to, adhering to, and practicing Catholicism and being properly interned as a Catholic.

The Protestants, on the other hand, were asking about their personal relationship with God (because the Church was corrupt and mortal, *how could it be a part of one's relationship with God*?). Now, it may seem silly to us, with over half a millennia of historical hindsight that

the Catholics did not understand the question, but this simply attests to the cultural and intellectual impact of Protestantism, and to the enculturation of ideas over time – the essential process of civilization at all levels. It also demonstrates, as Prof. Oswald (University of Warwick) stated, that "It is hard for a human being to absorb ideas that are of first-order originality; such ideas, by definition, barely compute."

✓ This is perhaps the same sort of question that the Rabbinic asked the Sadducees before the destruction of the Second Temple. A theme of the Reformation was a return to *early* Christian forms, mainly communalism and a Rabbinic relationship with God.

✓ Though we like to think of our worldview as broader than that of the pre-Reformation world (and if that is true, then the Reformation has succeeded... we have been Enlightened), many of the questions I have asked in GGDM may be as incomprehensible now, in the same way, as the Protestant Question was then.

It seems to me, with 500 years of historical hindsight, that the Protestants 'won' the Reformation; ultimately, the Catholic Church adopted many of the reforms sought or moved away from certain objectionable practices. Much of the Protestant victory is also caught up in various macro-historical trends, for example, the Protestant Historical Coincidence, rejection of scholasticism, rise of empiricism and science (see, Loren Eiseley, The Modern Dilemma, 1973), and the whole bundle of what is now called modernity (see Modernity, 3 Constructural Elements, p. 207, *supra*).

Had the Reformation not occurred, had there been no great wars of religion, had the New World not been discovered, how would history have unfolded in the world of Catholic Europe? Would they have looked, would they have tinkered, would the European obsession with tinkering have developed, or would the path to knowledge have been shut away as an encroachment on the realm of God, the path to the end of times, divine wrath?

✓ It is amazing, after all that has happened, that the Roman Catholic Church continues to embrace the concept of Papal Infallibility when Popes have proven so fallible! There are people who will say that I have misunderstood the concept. In another, satirical sense, one might say that Papal Infallibility is the essence of faith – the human preoccupation that ignores the lessons of history and other inconvenient facts to maintain a waking dream state against the Existential Void.

➢ Heavens Apart: Heaven (i.e. eternal afterlife) is rather relative, and that should be the first and only clue you need to understand that it is a completely subjective human cultural construct; humans across cultures don't even envision the same heaven or afterlife (but is still a 'fact' within the *fourth order of natural phenomenon* and thus cannot be simply dismissed).

What would be heaven to a cat? A painless place with other cats (but not too many) and birds singing, no dogs allowed, where the mice and birds run free, plentiful and are easy to catch, there is running water and streams of milk nearby, endless canned cat food, no upset tummies, every day is sunny, it's never too cold, and there are lots of great places to lay, dens to have kittens, and maybe some toys, cat tunnels, cardboard boxes, crinkly paper and plastic, strings, stuffed furniture, carpet, and catnip and flying bugs to chase for amusement. Maybe even a kind human caregiver (a sort of 'benevolent god' I guess), if the cat ever knew one.

✓ A man looks out for women, children and small animals. If a man cannot look out for small animals, he has no business with women and children.

Like a perfect cat Earth. But their vision of such a place, if they had it, would not include eternal life in the hereafter, because, as Roger Caras points out (and also common observation), they have no concept of their own mortality (or that of their human caretaker) or of greater good, and such a vision *would not* include harps, wings, greater cosmic struggles, blessings, morality, the possibility of punishment, or any other such abstractions or nonsense. A cat's heaven would be just the purrfect continuation of their life on Earth and they might not even know the difference.

- ✓ What would be heaven to an elephant, who mourn their dead? No mice or big cats?

> *"But if we're willing to live with the growing likelihood of nuclear war shouldn't we also be willing to explore vigorously every possible means to prevent nuclear war? Shouldn't we consider, in every nation major changes in the traditional ways of doing things? A fundamental restructuring of economic, political, social and religious institutions? We've reached a point where there can be no more special interests or cases. Nuclear arms threaten every person on Earth."* – Carl Sagan, Cosmos, Episode 13

Transformations: Domestication of the horse was a major transformation of human civilization (quite aside from general domestication of animals and advent of agriculture); it changed space and time for humans on Earth, bringing into contact groups that would have never met, tilling our fields, and pulling the heavy loads building the architecture of civilization. Two or three days of walking became a day ride on horseback, a day ride on horseback is now an hour or two in a car on the highways between population blots on the land.[3] River-going and coast-hugging boats (and later navigation on open waters) accomplished the same effect. A similar effect has occurred through the late 19th Century to the present with mechanical travel (trains, planes and automobiles, 'fly over country'), it is the root of what we now (and what some derisively) call globalization (see discussion, Spheres in Six Degrees, 3 Commerce, p. 1220, *supra*). It is the root of World War II. According to Joseph Tainter, however:

- ✓ "Complex feedback relations emerged among agricultural production, conflict, and complexity. Productivity fluctuations made military adventures tempting, even essential, while in turn military strategy came to influence agriculture. Dispersed, shifting swidden plots were essentially indefensible (at least at any reasonable cost), and yet were highly vulnerable and essential to subsistence. Concentrated, intensive systems, such as raised fields and terraces, were at the same time more easily defended (being compact, concentrated, and stationary) and productive enough to be worthwhile defending. The same consideration applies to centralized storage facilities. While it would be simplistic to suggest that warfare was the sole reason for agricultural intensification, it certainly made intensification that much more attractive." (The Collapse of Complex Societies (1988), see 2 Government Titles, EN 9, p. 604, *supra*, for full quote).

Thus, transformation and conflict play together through human history (this is hardly news to anyone who understands history), whether called Reformation or not. The fullness of the space expanding transformation of horses and wagon wheels is expressed first in the Great Migrations, and later in the conquests of nomadic steppe peoples from the Turkic Cumans to the Mongols.

Although all of these space-expanding transformations (i.e. horses, chariots, wagons, boats) have been appropriated in warfare and other struggles and perhaps caused them via contact and competition, and certainly enabled them (e.g., Alfred Thayer Mahan feature quote, top 1 Commerce, p. 1181, *supra*), none of them were, as far as we know, the direct result of struggle.

   ✓ One could, of course, invent a mythopoeic origin heroic story set in the Neolithic age in the Pontic Steppes where the hero domesticates a horse to rescue his female companion and children who have been kidnapped by warriors of another tribe. Perhaps he first thinks that he can overcome their lead by riding the horse, but then discovers that the horse is also a weapon against which the opposing warriors on foot will not stand. The same sort of story could be written for the invention of the boat. Not saying it didn't happen that way, but we have no record.

From this perspective then ('space expanding transformations'), the invention of space travel (and perhaps FTL or Stardrive in the future) does two things: It not only expands the space we can cover, but also expands the available space to be covered. This is different than all of previous human history: Human ability to travel distance has improved vastly, to the point that any place on the globe is just a day or two travel by air (taking into account waiting in the airport bar time), but the Earth is not now larger than it was in prehistoric times. But as the primary yardstick of human travel is time, we haven't really conceptualized space as distance yet.

➢ Reformation or Transformation?: These fundamental transformations challenge the 'working definition' of Reformation above (lacking fundamental change related to struggle), in the sense that GGDM Reformations are about more than the classic Reformation (with a big r or little R), Reformations are a subcategory of transformations. But for GGDM purposes, Reformation is a sexier term, at least in the West, and for game purposes, and thus the mechanics in GGDM are referred to throughout as Reformation.

   ✓ In the Merriam-Webster online thesaurus, at *transformation*, reformation is considered a related word.

Thus, Reformation in GGDM whether reformation or transformation, is merged into this Reformation section. This has two practical implications. First, the participants need not assume or believe that a Reformation in GGDM necessarily or automatically involves violent conflict or struggle, it might be possible to shape Reformations or parts of in non-violent transformation terms. Second, the result of a Reformation process in GGDM, in part, is an expansion of the Public Space which is arguably similar to both the domestication of the horse (a transformation) and the Age of Discovery (or Age of Exploration, late 15th Century into the mid-16th Century) during the late Renaissance and into the Reformation period.

➢ Duo Decei Millenii: Arguably, the Age of Discovery influenced the course of the Reformation; e.g., it provided an outlet for population to emigrate to the New World (colonization in GGDM, an outlet factor that should not be ignored), and New World resources certainly financed Spain's and to some extent, the Habsburg's wars against the Protestants (and everyone else) in central and western Europe.

But it was much more than that. It was, and still is, a transformation in GGDM terms that equals the Neolithic revolution. It was perhaps a once in a 20,000 year event (or 20 *chiliad* – yes, it's in the dictionary!). The 'transformation' wasn't a reformation-like fight between

Protestant rebels and imperial Catholics, it was the sailing ship, which transported people and horses over the watery majority of the Earth's surface.

There is no provision in GGDM for losing Monads on the Public Space. It might be possible, perhaps through a complete collapse of civilization, to construct such a scenario, but overall, GGDM follows the macro-trend of human history of expanding perceptions.

✓ See also Science Daily feature quote regarding Neolithic horse domestication and Battle of the Tollense River, 2 Reformation, p. 1396, *infra*.

While regression and stagnation may occur on a local level and has oftentimes not expanded much; it seems *overall* the 'reality' of humanity (i.e. the Public Space in GGDM) has never receded, has never regressed. Perhaps this is a function of sapience and the arrow or flow of time. European oceangoing sailing ships had the same magnitude of effect as the Neolithic revolution and the domestication of the horse. The disparity of realities is as good an explanation as any other of the half-millennia of European colonial domination and a much more interesting, perhaps Soja-Diamond-esque, angle on history, offering an explanation of why the current world feels orders of magnitude different than just a millennia ago.

✓ Of course, as every writer knows, increased space reality for humans has carried over to the same for wild and domesticated animal and plant life, including microbes that follow humans: "A large factor in the worldwide occurrence of this flu was increased travel. Modern transportation systems made it easier for soldiers, sailors, and civilian travelers to spread the disease." – from Wikipedia article, "Spanish flu."

➢ Post-Apocalyptic Reality: Stark reduction in the macro-reality of humanity to the stone ages or to some sort of neo-medieval agrarian setting is a common feature of post-apocalyptic fiction. While not often explicitly stated – usually presented as a return to barbarism, superstition and ignorance – it is what you feel most strongly in those settings – nascent global civilization smashed like a pumpkin; the pieces of our current world laying on the ground. The difference from a character in historical fiction is that the post-apocalyptic characters know on some level that human reality has receded, shrunk, and in most cases, that we did it to ourselves (i.e. we effectively gave ourselves a lobotomy).

✓ "This you know: the years travel fast, and time after time I done the tell. But this ain't onebody's tell. It's the tell of us all, and you've gotta listen and to 'member, 'cause what you hears today you gotta tell the newborn tomorrow. I's lookin' behind us now into history back. I sees those of us who got the luck and started the haul for home, and I 'members how it led us here and how we was heartful 'cause we seen what there once was. One look and we knewed we'd got it straight. Those what had gone before had the knowin' and the doin' of things beyond our reckonin' – even beyond our dreamin.' Time counts and keeps countin,' and we knows now: finding the trick of what's been and lost ain't no easy ride, but that's our track. We gotta travel it, and there ain't nobody knows where it's gonna lead. Still in all, every night we does the tell so that we 'member who we was and where we came from. But most of all we 'members the man who finded us, him that came to salvage. And we lights the city, not just for him, but for all of him that are still out there. 'Cause we knows there'll come a night when they sees the distant light and they'll be comin' home." – Savannah Nix, ending narration, Mad Max: Beyond the Thunderdome (1985).

➢ <u>Reformulation of Existentialism</u>: You are free to think you can do whatever you want until you don't agree, then you find out there are barriers bounding your existence. The universe is rather petty on this point, if I think I should be able to swim with the fishes and breathe water, I will soon be struggling to the surface gasping for air, my body will fight to survive regardless of my wishes. Existentialism seems to be more an observation than a philosophy, Viktor Frankl was a psychologist observing humans under the most horrific conditions.

    ✓ Time is the ultimate existential tyrant and boundary as we are trapped in it, moving in a direction against our will simply because we exist. We are 'punished' for existing.

"One of the things that I find interesting about Dwarf Fortress is that (to use programming jargon) it's sort of a declarative game rather than an imperative game. In e.g. StarCraft you select an individual unit and demand that it move to a specific point on the map; in Dwarf Fortress you configure which dwarves are allowed to perform certain tasks, then you place a task in a queue, and some dwarf somewhere will (eventually (hopefully)) take care of it (until they get distracted by a party, or decide to go fishing, or get hungry and wander off to the dining hall, or fall asleep in a stockpile, or drop anything they're carrying and run screaming from the forgotten beast hurtling down the hallway at them). It's a fascinating difference in paradigm, and I wish more games would explore the idea of actors in the world being chaotic/free agents which will only somewhat prioritize your wishes."

– By kibwen, "The Brilliance of Dwarf Fortress (2011) (nytimes.com)," found on forums at
https://news.ycombinator.com/item?id=13754307

Imperative Game: GGDM has been the classic, standard imperative game: Positions give orders to or demand actions from far flung ships, units, and colonies and – no matter how distant – the unit immediately does as directed (or tries), even if it means certain or near certain destruction. This is the essence of military command and discipline. As discussed in Communications Breakdown, *et seq.*, 1 The Streams of Time, p. 76, *supra*, this is not realistic, but GGDM tap-dances on a high wire over the problem, with tools such as Constructural Elements, Entropy (see 1 Entropy, p. 228, *supra*), participatory group-fiction ideas, and mumbled vagaries about time, distance, and unknowable future technology (e.g., the *Uber Alles*, see 2 Eras, p. 767, *supra*).

    ✓ Merriam-Webster online dictionary at *imperative* (adj.): **1:b** expressive of a command, entreaty, or exhortation, **c:** having power to restrain, control, and direct, **2:** not to be avoided or evaded: necessary; *imperative* (n): **2:** something that is imperative (see imperative entry 1): such as a: command, order, **b:** rule, guide, **c:** an obligatory act or duty.

There are some elements of GGDM, for example, the operation of Corporations and MegaCorporations, that were written back around 2000-2002, that operate in vaguely similar ways to Dwarf Fortress-type games except that they are really automated imperative routines that replace Power Activations.

    ✓ Mars rovers are 'driven' from Earth ground control, the communications lag is between 4 and 24 minutes. Thus, control must be declarative, local intelligence a must.

➢ <u>Declarative Game (sort of)</u>: Reformations (and Kairotic Moments, *infra*) in GGDM are treated differently, they are treated in a declarative fashion. The declarative game is one in

which the units are free agents and have a certain amount of free will, in a declarative game, the player puts tasks into a queue and the free agents perform the task whenever they get to it. In GGDM, Reformations great and small (i.e. 'reformations') are going to happen, but when and how they happen will be a bit chaotic and they will happen whenever they happen.

➢ Queue Ball: In GGDM, Reformations and Kairotic Moments are always in the queue for each position theoretically, but players cannot declare them, though it is possible, though highly unlikely, that players could conspire broadly to prevent a Reformations in the game.

➢ Hangovers: GGDM could be redesigned along declarative game lines, but that would be equally problematic in that, for example, it is desired that some ships move to system X, and maybe a couple of ships go this turn, but others don't feel like moving this turn, so maybe they go the next turn, or the turn after, whenever they finish their Pac Man tournament. This is a situation that is not realistic for combat movement, exploration, and such (except perhaps in a Confederation) where the ships belong to a centralized military command. Further, Taxation is not in the least declarative, it must be imperative, whereas Census is a species imperative of the highest order, and the activation of the Census power is only a matter of Looking to see the resultant population growth.

   ✓ The possibility that units (i.e. Ships and Colonies) will fail to obey Power Activations, including Taxation – for whatever reason – due to inactive Constructural Elements (see Power Off, 2 Constructural Elements, p. 193, *supra*), tends to blur the line a little between GGDM as an imperative game and GGDM as a declarative game – who knows, perhaps the Power Activation actually failed because the crew and captain had a hangover from a great party the night before and wanted to sleep a few more hours, and they'll get ready to move whenever they feel up to it? That is, next turn. But they love their jobs and are sworn patriots. Think this hasn't happened?

"Once your faith, sir, persuades you to believe what your intelligence declares to be absurd, beware lest you likewise sacrifice your reason in the conduct of your life. In days gone by, there were people who said to us: 'You believe in incomprehensible, contradictory and impossible things because we have commanded you to; now then, commit unjust acts because we likewise order you to do so.' Nothing could be more convincing. Certainly anyone who has the power to make you believe absurdities has the power to make you commit injustices. If you do not use the intelligence with which God endowed your mind to resist believing impossibilities, you will not be able to use the sense of injustice which God planted in your heart to resist a command to do evil. Once a single faculty of your soul has been tyrannized, all the other faculties will submit to the same fate. This has been the cause of all the religious crimes that have flooded the earth."

– Voltaire (Translation from Norman Lewis Torrey: Les Philosophes. The Philosophers of the Enlightenment and Modern Democracy. Capricorn Books, 1961, pp. 277-278)

Subsequent History: Alternatively, this is frequently quoted as, "Those who can make you believe absurdities can make you commit atrocities."

Injustice and atrocities being related terms, separated only by scale and severity, it is not likely that Voltaire would object to either translation, especially in light of subsequent European history. It is not too difficult to imagine what Voltaire would have said of the Bolsheviks, the Nazi

party, the Khmer Rouge, or the Islamic State. Voltaire, fortunately perhaps, died a few years before the French Revolution to which he contributed greatly.

✓ There are certain people in the world upon whom one should not inflict a good Voltaire quote, as it would be a complete waste of intellect to do so.

Invoking God: The addition of God to any argument does not improve the argument because, to add God to an argument, the speaker must necessarily make statements about something (God) that they cannot possibly know anything about. Consider Hitchens' Razor: "What can be asserted without evidence can be dismissed without evidence."[4]

✓ This is not to say that one cannot *speculate* about a supreme being – speculation is not either an assertion or dogma – but in religion, *it is never presented as speculation*. Admission that it is all speculation and visions would be deleterious to religion.

To the extent that the addition of God to an argument is an appeal to authority, that is a fallacy. And the witness oath in Court certainly doesn't scare anyone into telling the truth!

✓ "I think God is as much a basic ingredient in the universe as neutrons and positrons... God is, for lack of a better term, clout. This is the prime force, when we look around the universe." – Gene Roddenberry quoted in Karen Anijar, Teaching Toward the 24th Century: Star Trek as Social Curriculum (2004), p. 38; also quoted in Terrence A. Sweeney, 1995:8.

That said, however, there is a complex emotional package attached to the concept of God in our culture, and the addition of God to an argument provides (parental) emotive force that regular reason cannot in our current state; it is the thing that is more likely to motivate some or many listeners to the desired result than reason can (the source of clerical rule). This is an example in the ways that Aspects must be considered and recognized as part of our culture. Appeals to God are an adult continuation of the way children appeal to parental authority in childish disputes.

✓ It seems that perhaps one of the origins of religion lie in the time when intellectuals discovered the emotive power of a supreme being, superstitions (and mythopoeic concepts) and the mysteries and rituals. It became the tool of emotive force that their reasoned arguments could not provide, and they in turn, became its tool in a self-perpetuating process and worldview, the institution of organized religion.

Appealing to God in arguments simply became a linguistic habit that has finally slowly faded in the last two centuries. When I was growing up, there were people who said 'man' or 'fuck' in every sentence, and of course, valleyspeak became famous for repetition of words, punctuating every other sentence with 'like' (e.g., the movie Clueless (1995): "Duh, it's, like, a famous quote."). When I was in the Marines, I listened to a conversation between two Marines one afternoon and counted the number of times one of the speaker said 'man' in two minutes (as in, "Man, that sucked!" etc.). When he finished speaking, I informed him that he had just said the word 'man' at least ten times in two minutes of speaking; they just gave me blank looks. I am surprised they didn't respond with the typical exaggerated, 'Ahhhh, man!'

✓ The best line in Clueless (and, like, the only one I actually remember, dude!): "So, okay. I don't wanna be a traitor to my generation and all, but I don't get how guys dress today. I mean, c'mon, it looks like they just fell out of bed and put on some baggy pants, and take their greasy hair – ew! – and cover it up with a backwards cap and, like, we're expected to swoon? I don't think so!" Amen, dudette!

1 Reformation – Reformation of History

> **Lucifer:** *Theology is never any help; it is searching in a dark cellar at midnight for a black cat that isn't there. Theologians can persuade themselves of anything. Oh, my church, too – but at least mine is honestly pantheistic. Anyone who can worship a trinity and insist that his religion is a monotheism can believe anything just give him time to rationalize it. Forgive me for being blunt.* – Robert Heinlein, <u>Job: A Comedy of Justice</u> (1984)

How Many Angels: The pointless question, "How many angels can dance on the head of a pin," describes how I feel when reading about certain intellectual debates in history, for example, the topics debated at the Marburg Castle Colloquy in 1529. Were I in the place of Phillip of Hesse, I would have been tempted to hang Luther and Zwingli upside down by their ankles from the castle's parapets until freshly oxygenated blood replaced hot air and ill will in their heads and they sufficiently appreciated a new upside-down view of the countryside. Their pointless debate over the Eucharist completely defeated Hesse's attempt to prevent rifts in the Protestant movement and create a unified front in the face of threats of Imperial aggression. Had they actually tried to debate the question, "How many angels can dance on the head of a pin," they probably would have resorted to personal violence. Throughout GGDM, I have tried to stick to the practical, profound, and keep the commentary grounded in rules and real world examples.

While reading, I saw a comment to the effect that most people don't understand what is at stake in Christology arguments, and wholeheartedly agree: I am one of them. Christology arguments – Nestorians, Luther and Zwingli arguing at the Marburg Colloquy and Diet of Augsburg over the Eucharist, Arianism/Semi-Arianism, Trinitarians, hypostatic union, dyophisitism – and the various Synods, Councils, Church suppressions and Christian on Christian persecutions – make my head spin and my eyes roll up into my head. Prof. Michael Kulikowski comments in "Christians were Strangers..." (Aeon, January 30, 2017) that, "...theologians have always been able to render Christianity subtle to the point of incomprehensibility...." All other factors aside, I just can't see what is the practical difference, what difference does it make in our daily lives, or our civilization whether we believe in a Trinitarian or non-Trinitarian Jesus or God?

✓ And for the comfort of numbers, Robert Heinlein seemed to be aware of this argument – being careful not to impute on the author the words of his characters.

Whether Jesus was of one nature or two, whether Jesus was God actually, or not actually God? All are seemingly *pointless mythopoeic philosophical debates*, like in the movie Conan the Destroyer (1984) when they are arguing over whether the god of the sky or god of the earth is supreme (i.e. something like the god of the sky is over your head, above you and the earth, but you stand on the god of the earth, are born on and buried in the earth). What if Jesus was just a charming schizophrenic and all of those other guys were just ambitious fervent sycophants? Wouldn't be the first time in history or the last. What I see, rather, is the practical and long term effect of exiles, executions, displacement of populations, suppression of ideas, and conflict between powerbrokers.

And that, of course, is the crux of the matter. Is what is offered in GGDM more or less abstruse to the majority of the population than the debates of Christology? I have always held that what Luther and Zwingli debated didn't matter a damn to the common people and the soldiers (mostly mercenaries) fighting in the conflicts of the Reformation – noting for example, that the mercenaries who looted the Vatican in 1527 were both Catholic and Lutheran. Despite the populism

triumph of Luther, the majority of the population was uneducated and there were certain debates that were not widely publicized.

Are Christology debates abstruse to me because the world has moved on, our time is different, or because I simply don't personally embrace that worldview? Is what is offered here more relevant and accessible to the now and the future, or just a product of a late Cold War-millennial intellect? Have I offered sufficient argument for the importance of meanings?

> *"In an interview with Independent Investigations Group member John Rael, Minchin explains that what upsets him most about paranormal beliefs is 'special pleading' by people who say vague things such as 'there is no harm in it.' Minchin states that there is very little harm in something like reiki, but asks 'where do you draw the line?' when it comes to needing real evidence if a therapy works or not. He states that he is an atheist as well as a skeptic, and cannot understand how someone can be a skeptic and still be religious. 'If you apply doubt to anything...the whole religion thing is obviously a fantasy.'"*
>
> *– from Wikipedia article, "Tim Minchin," citing July 10, 2011 interview (https://www.youtube.com/watch?v=_YGbsQkeMsA)* [5]

Endnotes.

[1] Commentary & Citation: Humans have 46 chromosome pairs, less than that of a dog (70) or a potato (48). Scientist caution that there is *no correlation* between chromosome counts and complexity, e.g., "So the number of chromosomes has nothing to do with what or how complicated something is. And neither does the number of genes or the number of base pairs of DNA. What matters is what those genes are and how the cells and the organism use its set of genes. This is what makes a dog a dog and a dove a dove even though they both have 78 chromosomes. Which of course is way more than we do!" – Dr. D. Barry Starr, Stanford University, May 25, 2017, in response to question on The Tech Interactive. Humans... dogs... potatoes ... don't even go there!☺

[2] Commentary: However, as Dr. Paul T. Mason, History Professor at Duquesne University commented to my graduate History of the Enlightenment class, "Historians cheat." I too, for example, have a slightly difficult time accepting that the Enlightenment 'ended' at the Battle of Waterloo in 1815; though I do generally understand the concept of the relationship of the Enlightenment to the French Revolution, why not say the Enlightenment ended in 1804 when Napoleon (a product of the Enlightenment to be sure) crowned himself Emperor of France (literally, took the crown right out of the Pope's hands), and became the last 'enlightened despot' and ended the French Revolution?

[3] Citation: "But how far could a fit, trained person walk in eight hours? Many trained walkers finish a 26.2-mile walker-friendly marathon in about seven hours, with no breaks. If a walker is well-trained and is taking breaks and a meal stop, then 20 miles a day is reasonable. If you take no breaks and are going fast, you may be able to cover 30 miles if you have steadily built your mileage over the course of three to six months. Walkers on the month-long Camino de Santiago trek typically walk 12 to 20 miles per day on terrain that includes many hills. ... The Western pioneers usually covered 20 miles a day with the wagon trains, most of them walking rather than riding." – Wendy Bumgardner, "How Far Can a Healthy Person Walk?" Very Well Fit (www.verywellfit.com), October 21, 2018.

✓ Personal experience, I walked five days a week down the hill and up the hill from my house to my employment in center city Pittsburgh. The walk was about 45 minutes down and 50-55 minutes up, year round, sometimes longer when it snowed and was cold and blowing, frequently it was very hot and sunny, and often I was carrying loads, many of them heavy. According to my Fitbit, I averaged regularly over 100,000 steps (and sometimes up to 125-130,000 steps) per week, because this was in addition to walking for groceries and haircut, running a business, selling games on Saturdays, and walking around center city on errands. I also was getting about 80 floors per day during the week I think, a trip up the hill to my house on the walk home was equal to 60+ floors. It took its toll after 20 years on knees, feet, and tiredness.

✓ "All horses move naturally with four basic gaits: the four-beat walk, which averages 6.4 kilometres per hour (4.0 mph); the two-beat trot or jog, which averages 13 to 19 kilometres per hour (8.1 to 12 mph)

(faster for harness racing horses); and the leaping gaits known as the canter or lope (a three-beat gait that is 19 to 24 kilometres per hour (12 to 15 mph), and the gallop. The gallop averages 40 to 48 kilometres per hour (25 to 30 mph). The world record for a horse galloping over a short, sprint distance is 88 kilometres per hour (55 mph). Besides these basic gaits, some horses perform a two-beat pace, instead of the trot. In addition, there are several four-beat 'ambling' gaits that are approximately the speed of a trot or pace, though smoother to ride. These include the lateral slow gait, rack, running walk, and tölt as well as the diagonal fox trot. Ambling gaits are often genetic traits in specific breeds, known collectively as gaited horses. In most cases, gaited horses replace the standard trot with one of the ambling gaits." – from speedofanimals.com, "Horse *Equus ferus caballus*" captured February 26, 2019.

- The maximum speed for an unencumbered human walking on good pavement is about 3 mph. The U.S. Marines expected an average six minute mile (10 mph) running over flat ground (hard dirt or pavement) over three miles distance; that is, finishing three miles in 18 minutes was the perfect score of 100 on that part of the Physical Fitness Test (I never did it, my best time at 20 years old was 18:45 over three miles in Okinawa, Japan, but we had a couple of Marines who did it in under 16 minutes). Encumbered vs. unencumbered movement (as in hauling bags of loot and food supplies) over various terrain discussions were a regular fixture of Dungeons & Dragons articles in the 1970s and 1980s (an extension of military advance rates in wargaming, e.g., it took Braddock's column from May 29 to July 9, 1775, 41 days, to carve a road 110 miles ('Braddock's Road') through the Allegheny Mountains wilderness moving heavy cannons, supply wagons, tents, ammunition, equipment, about 2100 men total, a rate of 2.68 miles per day).
- "Usain Bolt has apparently never run a mile. The Jamaican sprinter's agent Ricky Simms broke the news in an email to the New Yorker, which attempted to guess how quickly the world's fastest man would be able to go the distance. Most agree Bolt wouldn't be able to break the world record set by Morocco's Hicham El Guerrouj. He ran the mile in 3:43.13 in 1999. Bolt, meanwhile, who holds the world records in both the 100- and 200-meter dashes (9.58 and 19.19, respectively), takes 2:10 to run 800 meters. That's a snail's pace relative to Guerrouj. That comparison has many thinking Bolt would be lucky to break the five-minute barrier – a feat many high school-level runners can achieve. Here's the thing, though. Bolt is a sprinter, so the way he's trained his muscles isn't meant for running the mile." – Marissa Payne, "Usain Bolt has apparently never run a mile," Washington Post, August 3, 2016.

✓ "I found this answer by googling 'how far can horses travel.' Essentially, it depends on the horse. Horses are athletes, and well-conditioned horses that are used to travelling long distances can travel much further than horses that are not used to such activity. If your horses don't get out and do this particularly often, then 20-30 miles (30-50 km) per day is probably a good estimate. Wikipedia supports this, with a claim of 30 miles (50 km) per day for a small mounted company. This involves the horse walking for most of the duration of the day, with short breaks. Of course, a fit horse can travel further than this. Mounted soldiers would ride their horses 50-60 miles (80-100 km) in a day. This is more taxing on both the horses and the riders. Over the course of 6 weeks of travel, it's possible that good riding horses would get into better travel shape, and be able to go further, perhaps in the 40 mile (65 km) per day range. This would involve spending much of the day at a pace faster than a walk, such as a trot, though not at a canter or gallop. Trotting would be interspersed with periods of walking to allow the horses to rest while still moving forwards. ... Note that, at the upper end of this, the riders may have more trouble than the horses. During the middle ages, long rides were usually taken on horses referred to as palfreys, which possessed a smooth, ambling gait rather than a trot. This made them much more comfortable to ride for long distances, since a trot is quite bouncy. This isn't something that the horses are trained to do or learn to do over the course of a ride. Rather, it is a breed characteristic of certain horses. If your riders are not on such horses, they will probably be travelling more around the 20-30 mile per day range, and as such their total distance will be more around 1200 miles for 6 weeks." – User ckersch, https://worldbuilding.stackexchange.com/questions/6411/possible-distance-travelled-by-horse-over-6-weeks, December 12, 2014.

[4] Commentary: If GGDM were making a macrosocial argument, *would the totality of the simulation itself serve as self-referential evidence in support*? As a demonstration? Thus, is GGDM being offered without evidence?

[5] Commentary: Voltaire in the 18th Century and the experience of World War II in the 20th Century, has already shown us 'what is the harm.' World War II made Voltaire prescient; it is odd that Voltaire invokes God in the argument... I think the cognitive point of separation for Voltaire was that he didn't have a problem with God exactly (but I do), but with the abuse and distortion by human Abrahamic religions and legitimized royal authority.

1 Reformation – Reformation of History