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See Appendix CTC – Continuous Turn Cycle Example

*“The fellowship was a brief beginning, a fair time that cannot be forgotten.
And because it will not be forgotten, that fair time may come again.”*

– King Arthur, *Excalibur* (1981)

“Time does not exist. Only the illusion of memories exist.”

– Seiichi Kirima, *Boogiepop Phantom* (2000)

Time Unwind: There is a line of thought – possibly related to Avicenna’s Floating Man argument – that absent external stimuli and references, time does not exist in the human mind, that is, humans do not possess ‘time sense,’ we cannot ‘feel’ time (see Just Don’t Call Me Late for Dinner and Timesense discussion, 3 Reformation, pp. 1403, 1406, *infra*); this is not a denial that time exists objectively in the universe, but that organic existence (and memories) – from which the mind emerges, is also the only thing tying the mind to the universe.

Effectively within the mind, the mind has always existed and will always exist, it does not recall coming into existence and does not anticipate not existing always (e.g., Isaac Asimov’s “The Last Answer” (1980), see excerpt in Information, *infra*). It is the dividing line between the mind and the brain (which is of the body) and a reason why mind is associated with divinity that is commonly envisioned as timeless. Sit in an absolutely quiet, sealed dark room with no windows for awhile and try to figure out how much time has passed as you think, daydream, or sleep. Many such experiments have been done, and it has been used as a form of disorientation torture or interrogation technique called sensory deprivation.

- ✓ “For modern man one of the most troubling aspects of eternity lies in getting used to the slippery quality of time. With no clocks and no calendars and lacking even the alternation of day and night, or the phases of the moon, or the pageant of seasons, duration becomes subjective and ‘What time is it?’ is a matter of opinion, not of fact.” – Robert Heinlein, *Job: A Comedy of Justice* (1984).
- **Time Passages:** The ability to be elsewhere – in memories, or anticipated futures, or literary construction of places and times that have never existed and never will – of suspension of disbelief – is a key element of sapience. One of the primary mental abilities of humans is to be somewhere else without moving. This is the basis of *Dune*’s (1965) navigator guild, the ultimate form of moving without moving.
 - ✓ “Imagination will often carry us to worlds that never were. But without it, we go nowhere.” – Carl Sagan.
 - “You reach out your hand but you are all alone in those time passages...” – Al Stewart, “Time Passages” (1978).

*I have squandered my resistance
For a pocket full of mumbles, such are promises
All lies and jests
Still a man hears what he wants to hear
And disregards the rest*

– Simon & Garfunkel, “The Boxer” (1982)

Peering Over the Dish: In primary school, one gets the impression that history is infallible, that is, that we know everything about every historical person. Everyone has a place and date of birth, and of death, and a blurb of historical accomplishments and why they are important to history. This is history and this is what is going to be on the test. John Taylor Gatto might opine (and I don’t specifically know if he has commented on this) that it is all part of the design to impose the idea that everyone is being watched all the time, that everyone is accounted for, and maybe I might add that it is also part of our religious ideals that everyone will be remembered after they die, and that an important few will be immortalized in history lessons. Most people never go beyond that, the lid having been put on the dish so that they learn to not jump so high.

When you peer beyond the dish in later life, you will discover that we know the names of one hundredth of one percent of the billions of humans and human ancestors that lived. Many, we know little about but their names (e.g., Simonides of Ceos, famous ancient lyricist, or Ptolemy Philadelphus, Cleopatra’s youngest son by Mark Anthony) and/or of others who simply disappear from historical records (e.g., the embezzling Spartan commander Gylippus who fled, or the infamous sister of Emperor Venetian III, Justa Grata Honoria who may have died or been murdered, or the last Western Roman Emperor, Romulus Augustulus who may have simply walked away) – all of these people vanish into the masses once they flee outside the sphere and time in which they were important people.

Kepler’s Laws

Johannes Kepler, working with data painstakingly collected by Tycho Brahe without the aid of a telescope, developed three laws which described the motion of the planets across the sky.

1. The Law of Orbits: *All planets move in elliptical orbits, with the sun at one focus.*
2. The Law of Areas: *A line that connects a planet to the sun sweeps out equal areas in equal times.*
3. The Law of Periods: *The square of the period of any planet is proportional to the cube of the semimajor axis of its orbit.*

Kepler’s laws were derived for orbits around the sun, but they apply to satellite orbits as well.

– From <http://hyperphysics.phy-astr.gsu.edu/hbase/kepler.html>, captured October 6, 2017

The Law of Periods: Each position will have a set time period within which to submit their Actions. Each position may only submit Actions once during that period, to avoid the confusion of multiple partial and complete sets of Actions and various amendments. Actions may not be amended once submitted; the Actions received by the Concierge within the turn period are final for each position. Actions received outside the allowed period are void, and will not be considered by the Concierge. Because of the manual effort required to process Regular Turn Actions and the continuous streaming nature of the game, these rules must be strictly enforced.

- **Three Daze:** The period for submission of Regular Turn Actions will be based on the calendar system and time zone used by the Concierge. Each position will have a period of specific days to submit one set of Actions. For example, Position A might have the period of Monday, Tuesday, and Wednesday to submit their Actions. Actions for Position A would not be accepted before 12:00 a.m. on Monday and after 11:59 p.m. on Wednesday, based on the time zone where the Concierge resides.
 - ✓ While three-day turn periods would be optimal for the flow of the game, it is unlikely that the game will run on a three-day cycle as ‘real-world’ (whatever that is...) tasks pull players away. This is one of the many good reasons why each position should be run by a player team. While three-day turn periods may not be practical, the game should not be allowed to drag.
- **Forward Fumble:** Because of the continuous action principle, all days of the week will be used for running the game to keep it continuous; that is, there are no ‘off days’ or weekends off when the game is not running. Any position that fails to submit their Regular Turn Actions within the time period will have no Actions run in the Turn Cycle, however, ships that are in transit will continue moving toward their destination (law of conservation of momentum) until they arrive and the position will be subject to the effects of the Actions submitted by all of the other positions.

This game operates optimally with ten positions playing (not only in terms of the rotation of turn submission periods, but also in the level of creativity of the players and complexity of the game), on which basis, each position should have to submit Actions approximately twice to three times per month. Less positions may mean longer turn periods (or, alternatively, greater frequency of Regular Turn Actions if a faster-moving game is desired) for each position. To the extent that processing requires manual handling by the Concierge, the Concierge’s schedule will also become a factor in determining the length of turn periods.

- **Lapping Effect:** While each position has a specific period during which it may submit Actions, the periods during which positions may submit Actions will overlap.
 - ✓ For example, Position A might be allowed to submit Regular Turn Actions on Monday, Tuesday, and Wednesday; while Position B may submit Actions on Tuesday, Wednesday or Thursday, and Position C will be allowed to submit Actions on Wednesday, Thursday, or Friday, and so on continuously, until all of the positions have had one opportunity to submit Actions, and then the cycle returns to Position A.

Note that Regular Turn Actions will be processed in the order they are received, therefore, if, in the above scenario, Position B submitted their Actions on Tuesday, and Position A submitted theirs on Wednesday, Position B’s Regular Turn Actions would be processed before Position A’s Actions. Some players may find this advantageous.

“Arvast Nade, just turning from the screen, jerked back to take another look. Between his fleet and the planet, a swarm of blurs had materialized.

The things were visibly growing large on the screen, testifying to an incredible velocity.

Abruptly the blurred effect vanished, and he could see what appeared to be medium-sized scout ships, all bearing some kind of angular symbol that apparently served as a unit identification.

Now again they blurred.

Nade activated his suit communicator.

‘Secondary batteries open fi—’

The deck jumped underfoot. A siren howled, changed pitch, then faded out. Across the control room, a pressure-monitor needle wound down around its dial, then the plastic cover of the instrument blew off.

The whole ship jumped.

A tinny voice spoke in Nade’s ear. ‘Admiral, we are being attacked by small ships of the Storehouses!’

‘Fire back!’ shouted Nade. [funny that they have to be told to return fire!]

‘They’re too fast, sir! Fire control can’t keep up with them! Look out! HERE COMES—’

Nade raised his battle pincers.

Before him, the whole scene burst into one white-hot incandescence.

– From “The Claw and the Clock,” by Christopher Anvil (1971)

The Claw and The Clock: Combat is fought in rounds, with each side submitting Combat Actions for each Combat Round. Combat Rounds are run at any time that the Concierge receives sufficient Combat Actions based on the type of combat being fought (see Combat Categories, 2 Combat, p. 959, *infra*). Several Combat Rounds may be processed in one day, or a combat may continue indefinitely (as long as there are combatants) with nothing happening. Players are never required to submit Combat Actions, other than during the first round of a combat.

- ✓ In a dilatory combat, it is quite likely that one or both sides will exceed their Operational Supply Limitations and be forced to retreat to a supporting colony for resupply. Maintaining a siege or combat over several Regular Turns at an **alien colony**, or in an un-colonized starsystem, requires a significant logistical effort. See Supporting Colonies, 1 Movement, p. 840, and extended logistics discussions 3 Movement, *infra*.
- **Relativity:** Combat Rounds are run independently of, and concurrently with the Regular Turn cycling of the game. The rest of the game does not stop for the resolution of combats. While a combat is in progress, it will or may be affected by events associated with player positions taking their Regular Turn, including, but not limited to, diplomacy, news events, the arrival of additional forces, shipbuilding, and supply and other logistical issues. Units involved in combat may not move away or execute any other Regular Turn Actions until they are either victorious or successfully withdraw from the combat.
 - ✓ The Battle of Pork Chop Hill (a militarily useless piece of terrain) in 1953 during the Korean Armistice negotiations (the first part of which was depicted semi-fictionally

in the 1957 movie) is an example of how ‘other things’ are going on (that is, how the rest of the game moves on as scheduled) during an ongoing combat. In GGDM terms, this would reflect a combination of player communication-negotiation between the sides while concurrently submitting Regular Turn actions and Combat Actions.

- **Bells Rung:** Combat Actions will only be accepted for one Combat Round at a time. The Concierge will process each position’s Combat Actions and resolve the Combat Round. Random die rolls will be handled by a random die roller, with the results being emailed to all combatants (out of fairness). Once the results are received and applied, the combatants may submit the next Combat Actions. In this way, it would be possible, with everyone online, to process four or five Combat Rounds in one evening, if desired (most combats will be over in less than five Combat Rounds). The Concierge will never divulge to anyone not involved in the combat the results of the combat or any Combat Round; that is a matter for player diplomacy and intelligence.

Clara: *How can you have a grave?!*

Dr. Who: *Because we all do, somewhere out there in the future, waiting for us. The trouble with time-travel is you could actually end up visiting it.*

– Dr. Who, “The Name of the Doctor” (2013)

X-Factor: When Dr. Who began in 1962, the world was divided by the Cold War and recovering from the social-psychological shock of WWII. It is entirely fitting that Dr. Who is a BBC production as Great Britain was the closest to and most traumatically affected country of the Anglo-sphere by the massive conflict of WWII (it is possible that Perry Rhodan served the same purpose in German culture). Dr. Who was a reaction to the creeping, palpable dread overtaking civilization at that time, and it was and is still most successful when it fills that role. To this day, Dr. Who studiously avoids anything controversial or relevant in the Real World – it is pure escapist fantasy – Dr. Who will never appear in China during the Great Chinese Famine, or in Southeastern North America during slavery,¹ or in South Africa during the Zulu uprising, or touch upon the events of the Opium Wars.² Or anything that would reflect badly on the Anglo-sphere or Eurocentric culture generally. GGDM is quite the opposite.

- ✓ “Gilles Deleuze famously argued in his books on cinema that the feeling that time, and the world with it, was ‘out of joint’ began in the aftermath of World War II, and clearly Akira Kurosawa’s *Rashomon* (1949) stands out as a film which uses flashbacks to present multiple possible versions of the past which don’t align, which couldn’t all be possible, and without providing resolution. Since the film’s attempt to place guilt in relation to a horrible act of violence can be read as an allegory of the attempt to deal with the guilt and horror of memory in relation to the atrocities of the war, it doesn’t seem unlikely that the form of the film is an attempt to deal with the trauma of its contents, allegorical and otherwise.

And as psychoanalytic critics have long argued, fragmentation is one of the primary responses to a trauma which remains difficult to process and integrate. Deleuze nevertheless aims to get beyond the limitations of psychoanalysis, and his argument about time and film is wide-ranging and goes beyond trauma, unless the trauma is seen as more than the war, but the generalized condition of living in our postmodern age. And so, in his cinema books, he traces the shift in the depiction of time in avant-

garde films in the post-war period, by means of cinematic authors such as Fellini, Resnais, Tarkovsky, and beyond.” – Christopher Vitale, “Collapsing the Fuzzy Wave: Rian Johnson’s ‘Looper’ (2012), Quantum Logics, and the Structures of Time Travel Films,” networkologies (blog), written in 2012, updated and reposted, October 31, 2014.³

Looking back at my youth, I feel like we were just sitting around resigned and waiting for the end; reading Loren Eiseley’s book, *The Modern Dilemma* (1956), gave me emotional flashbacks to the fear, the book is dripping with Cold War fear. It has been difficult for those born after 1990 to understand the world of my cohort (note how the meaning of ‘ground zero’ has changed post-9/11); and the new Dr. Who series, bereft of the background milieu of the Cold War, has had to find a new way to continue to represent hope, escapism, and a kind of higher meaning.⁴

- ✓ “Why do I write all this? Especially when I risk days of online wrath from Doctor Who fans? (Last time, I was called a c*** and a t***, among other things.) Because it’s not the scheduling. The problem is the show. People don’t like it, they can’t understand it, their kids can’t understand it. It’s overblown, sometimes nonsensical, and Capaldi hasn’t closed the deal with viewers as the lead.” – Neil Midgley, “Dr. Who Ratings Fall to a Record Low (Again),” *Forbes Magazine*, November 30, 2015.

Like the anti-hero Thomas Covenant the Unbeliever and *The Matrix*, Dr. Who seems to be something that you either love or hate, you either get it or you don’t. The new series particularly, has seemed to have its own superlative logic – sometimes staying just this side of ludibrium – reminiscent of the “X-factor” thinking introduced in Lewis Padgett’s (aka Henry Kuttner and C. L. Moore) short story, “Mimsy were the Borogoves” (1943).

*“Today was tomorrow, yesterday
It’s funny how time can slip away...”*

– Ozzy Osborne, “Thank God for the Bomb” (1986)

Endnotes.

¹ Commentary: Earlier Dr. Who was a little more adventurous, the First Doctor visited the Aztecs just before the arrival of the Spanish. Those episodes were slightly controversial in the early 1960s.

² Commentary: The newer series has just barely touched WWI and WWII and the Doctor went to a charity event for veterans of the Crimean War, 30 years after the war.

³ Citation: “While film seems to be particular suited to, as Deleuze argues, function as a ‘time machine,’ it is not the only medium which can do this. Literature can imagine multiple time lines as well, for example, but it only began to truly do this at around the same time as film began to do this, with perhaps Jorge Luis Borges ‘Garden of Forked [sic] Paths’ (1941) as one of the earliest examples. Of course, language and images of all sorts were always virtual realities of sorts, but only after World War II did time seem to truly ‘go out of joint.’ While the fissures can be seen as early as experiments with painting, such as that of Picasso or the Italian Futurists, it is only retroactively that the true potential import of these devices become clear.” *Id.*

⁴ Commentary: When I was young, I used to enjoy watching Star Trek TNG episodes, I admit it was highlight of my day when I got to watch TNG on television. Over 20 years later, when I can still watch it on the internet and DVD any time I want (and I suppose it is still re-airing on television somewhere in my way-too-many-channels line up), I find I like it far less: Star Trek TNG is too slick, too glossy, too cutesy, too utopian for me now, it makes a mockery of seriousness and it’s formulaic and mostly episodic. There are still some episodes I like to re-watch, but if I am not in the mood, I feel like turning it off 10 minutes into the program. I didn’t initially like DS9 very much, but came to appreciate it after the fact, especially the Dominion War arc. I guess this indicates a shift in worldview.