The Brightest Stars for the Construction of Mechanical Clocks (for Christian Marclay)

All these are just memories, somebody's. Scarred by ticks and marred by tocks, stained by the measured flow of passing moments, a clock can have any number of singular purposes: to measure the movement of celestial spheres or the breakdown of molecules; the frenetic, motionless lull of an oncologist's waiting room; or the pure unit of the timeless (a swimming hole, afternoon, spring) that is marked not by its length but by its beginning and end. It does not have to be regular. It only has to happen, one after the other, until it stops—if it stops. The first clocks were for communicating with gods. The last syllable of recorded time has yet to be uttered. Almost all of it is, more or less, arbitrary.

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This clock measures the exact unit of time from the moment you step into a movie theater while it's still daylight outside to the moment you leave the cool darkness into a shadowy evening.

This clock is the weight of water which flows through it.

This clock is the sun passing through the curtain patterned with pinks and greens, smiling lions and guffawing hippos, crisscrossed by leafy forests, and further cut by the bars onto a crib where sadness rages and weeps, getting lost in the fold of blankets and the sweat of midday struggles. The sweat cools, the sadness settles and notices the gaps. It lifts and blinks, stumbling awake to peer through and beyond.

This clock is the amount of kissing one can do before one's lips are thoroughly chapped.

This clock is the duration of John Keats' last cough.

This clock refuses to show its face out of shyness.

This is the clock of imagined dragons in sweetlands ruled by children with dirty faces; of low-hanging jerks and funereal theaters hovered over so that all those who did wrong can be witnessed in their woe with glee; of mothers and fathers coming home from long trips, and all the gear for all the dolls, and the disastrous day when all the kickball games have been won, for ends of books and the worries of the day, turning away from the drum and batter of the quotidian and becoming a tossled head sneaking deeper into feathers.

This is one of Dali's clocks, flaccid and droopy, deciding it has served its time being splashed with domestic lager on frat house walls and printed poorly upon umbrellas and journal covers, and is going off-scene for a ten-dollar Double Corona and some time alone to read a George Simenon paperback.

This clock measures whimpers and orgasms.

This clock measures the recurrent rhythm of everything. It has wheels for seconds, minutes, hours, days, months and years; but also nanoseconds and millennia, and for units of millions and billions of years. It has wheels for the movements of moons and planets, stars and star systems, for the drift of nebulae and the spiraling of galactic arms. It has wheels for the halflives of radioactive stones and for the spin of electrons; for rhythms of tides and the seasonal migrations of birds; for the sporing of mushrooms and the gestation cycles of elephants. It has wheels that measure the first laughs of infants and the rise-and-fall of civilizations. There's not a breath of wind or a solar flare it has not timed. Made with incredible love, it is filigreed and jeweled, gilded with platinum and titanium, microchips and plasma, the organic and inorganic in perfect harmony. The clock contains all the dreams of the multitude who constructed it, lives upon lives of the most brilliant technicians and horologists, artists and artisans, scientists of all kinds and shamans of the first rank. A cog is added for every life and cogs on that to measure all the breaks and snags, beats and tempos, however irregular, each measurable moment within it. Some wheels arc thousands of miles, others can only be seen with molecular microscopes. Daily, poets work out new durations, new rhythms to be measured, new moments in time. Each generation replaces the next and the clock grows. All of them long to destroy it, this timely prison, this trap.

This clock is the rumble of two highways, the clunk and churn of factories, the whistle of the wind as it dances along the river under two adulterous lovers hunched together in the cold along a thin strip of steel stretched over a clutch of pipes. Headlights flicker along the highways, mingling with the unfriendly orange of streetlamps and the burn of signs offering burgers and cars, liquor and women; the dancing reflection of all these lights churned in the vast river below. The silence and darkness of its size wages a quiet war against all the drones and coughs of the city, its flow a tidy antidote to the concrete that contains it, its lapping sound without beginning, without end, flowing and sounding ever onward. Desire folds into desire, solid flesh melts and resolves itself into a dew.

This clock measures the time between summer and Christmas Break, Christmas Break and Spring Break, Spring Break and summer.

This clock is a forest of flowers that peel their petals and gently fold closed at exactly the right moment. "What time is it?" you ask. And I reply "The Hawkweed just closed" or "The Proliferous Pink just parted her petals."

This clock is the Tower of the Winds, an octagonal Pentelic marble monument that punctures the *agora*. Sundry sundials, flowing water and a wind vane all attempt to capture time, but time captured it first. Buried for centuries, only now do scholars with bushy eyebrows and aftershaved politicians poke at its powers to try and free it from decay.

This clock is 
$$t_0 = t_f \sqrt{1 - \frac{2GM}{rc^2}} = t_f \sqrt{1 - \frac{r_0}{r}} \, , \, \text{where} \,$$

- ullet  $t_0$  is the proper time between events A and B for a slow-ticking observer within the gravitational field,
- $t_f$  is the coordinate time between events A and B for a fast-ticking observer at an arbitrarily large distance from the massive object (this assumes the fast-ticking observer is using Schwarzschild coordinates, a coordinate system where a clock at infinite distance from the massive sphere would tick at one second per second of coordinate time, while closer clocks would tick at less than that rate),
- G is the gravitational constant,
- ullet M is the mass of the object creating the gravitational field,
- *r* is the radial coordinate of the observer (which is analogous to the classical distance from the center of the object, but is actually a Schwarzschild coordinate),
- *c* is the speed of light, and
- $_{\bullet} \quad r_0 = 2GM/c^2$  is the Schwarzschild radius of M.

This clock is a game of peekaboo: it tumbles, it chortles, it jumps, it peeks, and closes. Hiding behind a battered futon, the scabby arm of a greenish loveseat, behind the softest plush of Chickie and the supine gray velvet of Momo, behind a potted fern and a leafy rhododendron, behind most normally two twitchy hands. Every time it is found with a giggle, and every giggle spooks another hiding, and every hiding another giggle, and on.

This clock is the Official Timepiece of the Gravity Falls with Grunkle Stan strapped to a beam of pure light in a vacuum moving at roughly 299,792,458 miles-per-second, both hands perpetually stuck at the missing "S" of The Mystery Shack.

This clock is the aroma of creek mud smelled on an autumn evening. The clock ticks every time the scent carries to the person who first breathed it in after school one day when the street lights blinked on and the buzz of insects signaled twilight.

This clock is a member in good standing of the Antiquarian Horological Society.

This clock is a stomach. This clock is a cock. This clock is a pussy. Each knows exactly what time it is when it's time.

This clock is the exact time it takes to read the wrong letter.

This clock is

O snail Climb Mount Fuji, But slowly, slowly!

the mountain.

This clock is the susurrus of all the heartbeats slowing down to sleep as darkness creeps to darkness and dream flows to dream, each a door to the other, a mansion with endless rooms.

This is the first clock built by the first boss for the first slave.

This clock is a long day of summer sex. Sleeping and waking flow together almost without seam, excepting the precise mechanisms that link the sheet pulled over the window, lightly flapping in a light breeze to the creep of muffled sunlight drawing long shadows across a floor crowded with crumpled clothes to the careful, quiet punctuation of each sigh.

This clock is the first gunshot in the morning and the last at dusk.

This clock is a moment of time in every movie collected by a small coterie of watchers that is diligently stitched together by a single man. He does not care particularly about film, or time. He only loves the sounds of stitching.

Andrew Berardini