

sungrazer

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start; https://en.wikipedia.org/wiki/Wiki_rabbit_hole

i grew up in that brief happy window between school computer labs and school firewalls.

first sentence -> **learning pathway** https://en.wikipedia.org/wiki/Learning_pathway

my elementary school had 16 computers, blueberry imacs donated from apple during one of their give-away PR-drives.

first sentence -> **e-learning** https://en.wikipedia.org/wiki/Educational_technology

the librarian was so proud of them. i'd take lunches in there and browse, reading facts and early blogs linked from cool site of the day indexes.

> 6 Technologies - > middle paragraph -> **electronic media** https://en.wikipedia.org/wiki/Electronic_media

later, i'd play flash games and roleplay on forums - adopt epets - make websites -

> History of Development -> transmission-> **internet** <https://en.wikipedia.org/wiki/Internet>

all the trappings of a child let loose on a world still building, a world in which a child could have a hand in building.

> 7.3 **Social networking and entertainment** > paragraph 5 > (children also..) 3rd sentence **Internet filtering** https://en.wikipedia.org/wiki/Internet_filter

by the 8th grade, school administrators had installed a firewall on the school's computer network- for our safety, of course.

>very bottom of page, categories - **internet censorship** https://en.wikipedia.org/wiki/Category:Internet_censorship

there were ways around it. proxy servers and redirects, vpns, admin logins swiped from teacher's desks, that sort of thing.

but there were not always ways around a teacher coming up behind you to catch you playing flash games on school time.

pages under D - **Deletionism and inclusionism in Wikipedia** https://en.wikipedia.org/wiki/Deletionism_and_inclusionism_in_Wikipedia

we diversified. we grew clever. we, like every technology-oriented hobbyist before us, found out that the computer itself was a kind of a toy, or at least - could be used to make toys. surveilled by the typing instructor in the 10 minutes before class let out, we played the kinds of games that weren't games by the looking - animating stick figures in powerpoint. playing battleship in excel. changing all the UI sounds on Windows ME. wikiracing.

> VERY bottom of scroll, under related, in box **Wikiracing** <https://en.wikipedia.org/wiki/Wikiracing>

wikiraces are a simple concept - players must navigate from one article to another, only using lateral links to do so. you click from idea to idea, concept to concept, attempting to piece a path through the connective tissue, winnowing towards your destination article by finding ever-more-related concepts. it is a game of dead-ends and surprising turns and, as a child, plenty of guesses in the dark about what a particular word might *mean* or where a place actually *is* in this world.

top > For the internal project page on this topic... <https://en.wikipedia.org/wiki/Wikipedia:Wikirace>

like any game played on schoolyards, there are an infinity of variations to the wikirace: the back button is banned, no sidebars, we start in the same place, we all start somewhere different, no going through "UK", no going through "united states", winner is the fastest, winner is the least number of clicks, no keyboards, no control f, 2 players, 10 players, the destination is decided each time, the destination is the other player's random article, the destination is selected from the **following list**, the destination is (and for us, it always was) the article on "philosophy"

we played like this:

two players

an audience, to ensure honesty

a countdown

a click on random article

click on **random article** - sidebar

(here's where fairness broke down, of course - *one* may have a direct link to philosophy from random article, while another might be one line of text about a bird species in the arctic. but that was the exciting part. the not-knowing where you'd begin)

you could click any blue link on the article itself

no back button

no search

no new random article

the clock is ticking

where have you gotten yourself to?

your friend is trying to help - look, look, that links to "church!"

someone else is screaming "no cheating"

a piece of food is thrown, or a pencil case

the typing instructor is raising an eyebrow

the class bell is about to ring

the bags are being gathered, the chairs are being pushed back

the typing instructor has gotten up to see what the fuss is about
you are sweating a little
this feels like you might be going the wrong direction
or perhaps you shouldn't have gotten so lost in taxonomies

and navigate until you find yourself at <https://en.wikipedia.org/wiki/Philosophy>

and just then, finally, one of you makes it all the way to "philosophy"
a mega-concept that is reliably linked out to eventually, especially the more abstract things get
most things have *some* philosophical element, once they get big or heady enough
or at least, were named after someone who invented a theory

all the way to the bottom -> show "humanities" category -> **digital humanities** https://en.wikipedia.org/wiki/Digital_humanities

these are sweet memories, in their own way. children skipping through the mass of human history and turning it into a game of structure and movement, and not one of reading or depth.

definition -> second paragraph -> [6] with tools provided by computing -> **hypertext** <https://en.wikipedia.org/wiki/Hypertext>

connectivity over content. a learning of the shape of the thing, and not the texture of it. that's hyperlinks for you. tim berners-lee, eat your heart out.

first paragraph of summary -> [2] where **Web pages** https://en.wikipedia.org/wiki/Web_page

in recent years i found i wanted to use the wikiracing format for something else again - i envisioned this lecture of interconnected thoughts, the source material on screen even as i talk over it.

contents -> 2 navigation -> Main article: **Web navigation** https://en.wikipedia.org/wiki/Web_navigation

the structure apparent.

first sentence -> **network** https://en.wikipedia.org/wiki/Computer_network

citations shot through, implicitly.

last word of first paragraph -> **network topologies**. https://en.wikipedia.org/wiki/Network_topology

the web of references spiraling out, as i pick a path between them.

first link-> "arrangement of the elements (**links**" -> https://en.wikipedia.org/wiki/Data_link

tracing my own walk, slower now that i am not a child and do not run like i once did,

last link of intro paragraph - > **link protocol** https://en.wikipedia.org/wiki/Link_layer#Link_layer_protocols

in front of an audience, who can verify that i am not cheating.

scroll UP- > 3rd link in first sentence -> **Internet protocol suite** https://en.wikipedia.org/wiki/Internet_protocol_suite

the appeal for me here is the externalized memory system - the collective one, the one that lets me apply my structural knowledge to other people's specific depths.

scroll down to history -> first image (**Diagram of the first internetworked connection**)

this is reflected in the way i have memorized a dozen sure-fire paths to 'philosophy', although my own undergraduate studies on the subject constrain *all* my years worth of knowledge to one paragraph of the philosophy article, contents 3.1, on aesthetics.

from image page -> **more details** -> scroll to licensing -> by gnu -> **Free Software Foundation** https://en.wikipedia.org/wiki/Free_Software_Foundation

this collective memory system is the great promise of wikipedia, after all - the free encyclopedia that anyone can edit.

first paragraph - > **GNU General Public License.[8]** -> https://en.wikipedia.org/wiki/GNU_General_Public_License

wikipedia owes a lot of its philosophical origins to GNU and the general public license, first written in 1989 and one of the cornerstones of the free software movement. this ideological origin of wikipedia has perhaps gotten a little lost in the interceding years; but wikipedia is the free encyclopedia (to borrow from GNU)- in liberty, not in price.

3rd link, first paragraph - > **four freedoms** https://en.wikipedia.org/wiki/Free_software#Definition_and_the_Four_Essential_Freedoms_of_Free_Software

the four freedoms of the GPL are this -

Freedom 0: The freedom to use the program for any purpose.

Freedom 1: The freedom to study how the program works, and change it

Freedom 2: The freedom to redistribute and make copies

Freedom 3: The freedom to improve the program, and release your improvements

link at top of para section - > **Main article: The Free Software Definition** https://en.wikipedia.org/wiki/The_Free_Software_Definition

though a laudable set of goals on paper, these freedoms are not without their critics, and although i *have* used free software licenses for specific projects and probably will again, i would count myself among them. free software comes from a libertarian worldview. fundamentally, i do not want my work used for any purpose. i have an agenda for the world i want built, and i seek to plant the seeds of that world in my work by any means available. if the tools i make could be turned cross-purpose, i am not above restricting their use with licensing.

this is anathema to free software, and i can't help but wonder if i spent my days writing articles instead of code-bases, if i would come eventually to a similar place.

switch from article to **[talk]** tab link at very top - > https://en.wikipedia.org/wiki/Talk:The_Free_Software_Definition

i'm not sure. they are different types of tools. but anyone familiar with the free and open source software community would recognize a brand of the internal politicking of wikipedia within it. flame and edit wars. vandalism. malicious revision. self-aggrandizement. every wikipedia "talk" page a listserve in miniature.

very first banner -> this article is of interest to the following **WikiProjects** <https://en.wikipedia.org/wiki/Wikipedia:WikiProject>

and, of course, a particular type of volunteer, the list well known -

first link -> For the article on WikiProjects, see **WikiProject**. <https://en.wikipedia.org/wiki/WikiProject>

generally white, generally male, generally english-speaking, and more than anything else - with enough free time to take weekends to contribute labor to unpaid project. these with every accordant bias bundled in, even as work is done at an editorial level towards balance.

scroll to -> WikiProjects and assessments of article importance and quality - > **English Wikipedia** -> https://en.wikipedia.org/wiki/English_Wikipedia

there's also a (to be sure, deeply necessary for projects like wikipedia) orientation towards *truth here* - but always a truth that can be held up by apersonal citations. whitepapers. references. in my own life i find this kind of truth distasteful. it casts untruth on all that cannot meet its standards- untruth on that which is not citable. this puts the onus of proof on those who have not had their experiences verified by power.

last link first sentence -> **wikipedia** <https://en.wikipedia.org/wiki/Wikipedia>

given all this, perhaps it is funny that i should love wikipedia as much as i do. but i *do* love wikipedia, in way that is not purely beholden to the information held within it.

SCROLL WHILE READING > 1 History > 1.2 Launch and Growth -> second to last link in second paragraph -> **Yongle Encyclopedia** https://en.wikipedia.org/wiki/Yongle_Encyclopedia

i don't visit wikipedia like i read a book. it is for browsing, for sampling, for picking the sweet berries off of and eating them fresh, right away, still warm from the sun.

first paragraph - > Chinese leishu **encyclopedia** commissioned.. <https://en.wikipedia.org/wiki/Encyclopedia>

i wake up after late nights spent diving from article to article, to find 45 tabs open in my browser and a folder of screenshots and a fuzzy sort of empty feeling,

3 History- > 3.1 Written encyclopedias > second paragraph, in list- > **birds** <https://en.wikipedia.org/wiki/Bird>

like i was chasing something, like it was just ahead of me,

second to last link in first paragraph - > **seabirds** <https://en.wikipedia.org/wiki/Seabird>

always out of reach, just a bit down the tunnel, just in the next article,

> Role in culture (near bottom)

and now, in the morning, all i have is the shape of it- and oh, no, even that has gone.

> role in culture > middle of second/last paragraph - >**The Lord of the Rings** https://en.wikipedia.org/wiki/The_Lord_of_the_Rings

i think it's the passion of the place that gets me. even sublimated through revisions and editing processes,

first link -> **epic** [https://en.wikipedia.org/wiki/Epic_\(genre\)](https://en.wikipedia.org/wiki/Epic_(genre))

even with the fact checking, and the established wikipediaian writing voice, and the disclaimers that this section needs verified sources, the care comes through;

last in list second sentence **video games** https://en.wikipedia.org/wiki/Video_game

somebody *loves* that seabird. this opera cycle.

sidebar (right) -> platforms -> **browser game** https://en.wikipedia.org/wiki/Browser_game

that particular tomb, and all its attendant atrocities.

last link first sentence **web browser** https://en.wikipedia.org/wiki/Web_browser

someone drives this state route that goes through the mountains every day, and is going to write about the view.

it's the excitement that catches me. the way that leaks into the barest sentences, the way they demand remembering

function -> first link second paragraph **hyperlinks** <https://en.wikipedia.org/wiki/Hyperlink>

and the way it catches in the links. how every piece of blue text is an invitation. a beckoning.

History (near bottom) -> second sentence -> **Memex** <https://en.wikipedia.org/wiki/Memex>

it says- oh, you're interested in the memex? that 1944 hallucination of a computational internet that proceeded and influenced no much of the internet we have now - albeit one designed on microfiche?

see also - > **Mundaneum** <https://en.wikipedia.org/wiki/Mundaneum>

perhaps then, you'd like to read about the mundaneum, a 20th century data-collection attempt to classify the world. yes - it was called the world palace - it was to sit inside a world city. the collection once held 12 million index cards.

second link first sentence -> **Universal Decimal Classification** https://en.wikipedia.org/wiki/Universal_Decimal_Classification

it was a peace project, that kind of european 20th century peace project that believes indexing the world will lead to an ultimate understanding of it, and that an understanding will lead to unity among men. as if understanding would follow, like a dog at heel, the capacity to remember.

history -> last link -> **Memory of the World Register** https://en.wikipedia.org/wiki/Memory_of_the_World_Programme#Memory_of_the_World_Register

always, in these total-collection efforts, it is what is excluded from the archive that tells the broader story.

second link, 1st sentence - > **collective amnesia** https://en.wikipedia.org/wiki/Social_amnesia

even in this era of data-gathering and surveillance, it is specific motions that are collected. my browsing. my watching. the things i buy. the messages i leave for others in public. but not; the eggs i trade to a neighbor. the things i say to my dogs. the curving little catch in my chest when i click through to a notification i'd been wanting to receive.

in biology -> **biology** <https://en.wikipedia.org/wiki/Biology>

it is the great dream of utopian total-recollection archive projects and advertisers both, to duly record this too, and lord knows they're trying - every smart home device and wearable comes ready to tell on a blush, and to repeat the secrets i say to the oatmeal.

second sentence- > **organisms** <https://en.wikipedia.org/wiki/Organism>

but aggregate data is not an archive in the same way a library is an archive. a dataset reduces to patterns and forgets or privatizes the rest, often throwing away the human inside of it. a card catalog attempts to point to specifics by which you might imagine the whole, often by throwing away that which does not fit into the current narrative favored by power or dominant culture.

second to last sentence in intro -> **extinct** <https://en.wikipedia.org/wiki/Extinction>

they both attempt to extend memory, but in doing so compress it - a reduction from the dense, infinitely detailed moment to moment into-

here is what was said, here is how it looked, here is who was there, here is the date and the time.

top-> For lists, see **Lists of extinct species** https://en.wikipedia.org/wiki/Lists_of_extinct_species

even when or if it catches my pulse, my blush, my blink - there will be more left unrecorded. the only storage medium big enough to hold the world *is* the world.

last link in see also - > **List of lists of lists** > https://en.wikipedia.org/wiki/List_of_lists_of_lists

that blink existed - it was impressed on history, even as it is forgotten.

2.4.3 Performing arts > **list of films** (lots nested under) https://en.wikipedia.org/wiki/Lists_of_films

even as it erodes away in the slow action of the turning of time.

-

right sidebar - > 7 By topic -> 7.6 Psychological -> **List of films about memory** https://en.wikipedia.org/wiki/Category:Films_about_memory

that the list of films about memory should be so short

subcategories - > **Films about amnesia** -> https://en.wikipedia.org/wiki/Category:Films_about_amnesia

while the list of films about amnesia should be so long,

is a joke of specificity. this is exactly what happens when a subject, too broad, loses focus in the list.

M -> **Mulholland Drive** (film) [https://en.wikipedia.org/wiki/Mulholland_Drive_\(film\)](https://en.wikipedia.org/wiki/Mulholland_Drive_(film))

this is because - of course - every film is a film about memory. every film is a display of dead moments. frozen, arranged, memorial. cataloged.

all the way to bottom -> BFI Sight and Sound polls -> expand -> 2014 Documentaries -> **Sans Soleil** https://en.wikipedia.org/wiki/Sans_Soleil

i recently rewatched chris marker's sunless. in it, he describes a film he'd like to make - it is also named sans soleil, it is also a science fiction movie posing as a documentary about a time traveler -

he says;

I imagine him moving slowly, heavily, about the volcanic soil that sticks to the soles. All of a sudden he stumbles, and the next step it's a year later. He's walking on a small path near the Dutch border along a sea bird sanctuary.

second sentence - > **memory**, <https://en.wikipedia.org/wiki/Memory>

That's for a start. Now why this cut in time, this connection of memories? That's just it, he can't understand.

second sentence, **past events** [https://en.wikipedia.org/wiki/Foresight_\(psychology\)](https://en.wikipedia.org/wiki/Foresight_(psychology))

He hasn't come from another planet- he comes from our future, four thousand and one: the time when the human brain has reached the era of full employment. Everything works to perfection, all that we allow to slumber, including memory. Logical consequence: total recall is memory anesthetized.

see also -> **retrocognition** <https://en.wikipedia.org/wiki/Retrocognition>

After so many stories of men who had lost their memory, here is the story of one who has lost forgetting, and who—through some peculiarity of his nature—instead of drawing pride from the fact and scorning mankind of the past and its shadows, turned to it first with curiosity and then with compassion.

see also -> **time slip** https://en.wikipedia.org/wiki/Time_slip

In the world he comes from, to call forth a vision, to be moved by a portrait, to tremble at the sound of music, can only be signs of a long and painful pre-history. He wants to understand.

first sentence **travel through time** https://en.wikipedia.org/wiki/Time_travel

-

i once watched a campus building get torn down over the course of several weeks. i was working at a warehouse near the university, and would take my lunch-break sandwich and sit across the street to watch the cranes.

3.1 Presentism vs. eternalism

for some reason rather than take the building down all at once, they were demolishing it front to back, in layers. it was a 4 or 5 story building, and warren-like, having served mostly as professorial offices.

first link - > **eternalism** [https://en.wikipedia.org/wiki/Eternalism_\(philosophy_of_time\)](https://en.wikipedia.org/wiki/Eternalism_(philosophy_of_time))

every day, by lunchtime, a new tableaux had been sheared off- a new network of rooms and hallways visible to the air. much of the furniture was still in place. i assume anything wanted had been removed, and it was cheaper (or more labor effective?) to simply sort through the rubble for the rest.

once, i saw the huge scoop of an excavator come down straight onto a desk, which tumbled to the earth with the floor that had been beneath it.

second link - > **ontological** <https://en.wikipedia.org/wiki/Ontology>

as it fell, its drawers opened and thousands of papers flew into the sky, swirling like birds before they drifted down to cover the entire build site. nobody picked them up. within a half hour, another slice of building came down, burying the paper in concrete and rebar.

second link - > **philosophical** <https://en.wikipedia.org/wiki/Philosophy>

i later found out it was the old philosophy department.

-

i'm writing this paragraph a few days before i'm scheduled to give this lecture. it is two in the morning. i've just come back inside from the animals. i went out to feed everyone something little, just because i knew i wouldn't be up early.

second paragraph, second sentence -> **astronomy** <https://en.wikipedia.org/wiki/Astronomy>

the moon was just down, and in the pasture, in the dark, i turned off my flashlight and stood there for a moment in the cold, my breath billowing out around me, under the crawling winter stars.

first image -> image - >

and it was then that i remembered about the comet.

laser guide star -> https://en.wikipedia.org/wiki/Laser_guide_star

the green comet of now, late winter 2023 was last here 50,000 years ago - it appeared in the sky above a prehistory where human beings still lived next to our sibling species, neanderthals and denisova people.

first sentence (called **astronomical seeing**) https://en.wikipedia.org/wiki/Astronomical_seeing

in the sky here, it is stuck between ursa major and minor, which means that it hardly moves over the course of the night - close to polaris, the stars appear to rotate around it. this was the first time i'd seen it. fuzzy, faint, but unequivocally there. unmistakable from anything else - a cottony little smudge of a thing, it looks more like the pantry moth cocoons i've been cleaning out of the dry goods all month than some firey sword.

third link, **astronomical object** https://en.wikipedia.org/wiki/Astronomical_object

still though - an orbit of 50,000 years. that's a hell of a thing.

WELCOME BACK i said, with such firm loudness- as if i had to raise my voice a bit for the comet to hear- that the donkey started from his patient chewing beside me and went bouncing off into the dark

last sentence of intro section -> **comet** <https://en.wikipedia.org/wiki/Comet>

in 2020, during the first summer of the pandemic, i became singularly obsessed with the comet NEOWISE (or, to be more accurate - one of the comets NEOWISE, as they are named for the telescope not the individual body).

i was living back in my hometown, and every night for two and a half weeks i climbed the biggest hill around, above the new library that wasn't built when i was a kid, and sat watch with my binoculars. there was an older man always there with a telescope set up - he'd graciously train it to the comet, wipe down the eyepiece with rubbing alcohol, and retreat 15 feet so i could take a look. we'd shout pleasantries at each other over the parking lot. he was the only friend i made that year, and i didn't ever learn his name.

scroll to - > observation - > 9.1 Lost -> (2/3rds) Main article: **Lost comet** https://en.wikipedia.org/wiki/Lost_comet

my fondness for comets is partly their showy nature, partly a half-remembered childhood viewing of the last time hale-bopp came through in 1997, and a lot their implicit relationship with deep time, with periodic orbits so outside the scale of a human year or even a human life.

loss - > second paragraph - > (see **Comets § Fate of comets**). https://en.wikipedia.org/wiki/Comet#Fate_of_comets

there is a theory that it was comets that brought the ocean to an early earth. that it was a billion years of bombardment that aggregated ice into ocean. few to none of these would be the comets we still are graced by. subsumed, those comets *became* the terrestrial water.

scroll down 3 sections to Classification -> 8.2 Sungrazing comets - > Main article: **Sungrazing comet** https://en.wikipedia.org/wiki/Sungrazing_comet

comets that pass close to the sun are called sungrazers. small sungrazers vaporize at perihelion - large ones may escape intact, but always with some of itself lost in the brilliance. like a favorite memory, accessed too often, replaced by the memory of visiting the memory.

these are the often the brightest comets, the so-called "great comets".

if i had to name this hour of talking, it would be named this - sungrazer.

all the way to bottom -> "comets" > expand "show" > Culture and speculation > **Comet vintages** https://en.wikipedia.org/wiki/Comet_vintages

comets have gripped more than my attention in the fullness of time, and everything from famine to flood to births to plagues have been set upon their appearances. they are even supposed to foretell a good wine year; comet vintages denote a grape harvested under a great comet, and though a distinctly uncitable truth, they do call a little extra attention or price.

second sentence - > Throughout the **history of wine**, https://en.wikipedia.org/wiki/History_of_wine

when i first sat down to start writing this talk a good month ago now, i thought i'd better read up a little on the subjects i thought i'd touch; memory, monuments, deep time. i'd never seen cave of forgotten dreams, hertzog's 2011 documentary about the cave paintings at Chauvet, despite it being his most popular film. it opens - the very first shot- on a vineyard, planted just outside the cliffs that house the caves of paintings.

Prehistory > 1.1 Vine domestication > last link **Neolithic**, <https://en.wikipedia.org/wiki/Neolithic>

but the paintings are pre-wine, pre-fermentation. they are also pre-grapes, at least as we know them - before domestication, they were a much smaller, more tannic berry. if the people who painted the bears and horses at the caves ate grapes, it would have been these wild fruits, acrid and seedy. barely recognizable as the same fruit to a modern palette.

first sentence > **Stone Age** https://en.wikipedia.org/wiki/Stone_Age

i didn't love the movie. it was fine- beautiful, even- but effected a flattening of subject. perhaps i should have tried to see it in 3d, as it was shot. perhaps i would have been happier just reading the wikipedia article on it.

3rd paragraph > middle > being the **Paleolithic** era <https://en.wikipedia.org/wiki/Paleolithic>

but i loved the opening on the grapes - in this way, the people who painted the pictures feel even more recognizable as us.

second image - > **Cave of Altamira and Paleolithic Cave Art of Northern Spain** https://en.wikipedia.org/wiki/Cave_of_Altamira_and_Paleolithic_Cave_Art_of_Northern_Spain

how art-making has changed so little in all the time it took to produce the cultivation of grapes.

bottom - > See also > **Art of the Upper Paleolithic** https://en.wikipedia.org/wiki/Art_of_the_Upper_Paleolithic

at Chauvet, the dating of the cave paintings is done both by radio-carbon and by observation. both point to two periods of human habitation, some 6000 years apart, which is incidentally about as far from now as the first large-scale production of wine circa 4000 BCE.

first image -> **Chauvet Cave** > https://en.wikipedia.org/wiki/Chauvet_Cave

before, between, and after the periods of painting, the cave was home to a now-extinct species of cave bear. their scratches also mark the walls, and are incorporated into the work at places. interspecies collaboration over thousands of years.

and over it all, grows a fine calcite crystal. this too is used to date the markings; stone in particular environments forms at a specific rate, over millennia.

> 4 Preservation

Chauvet has been closed to the public since it was found, a lesson learned on Lascaux and other famous caves. Show caves are all but destroyed by visitation - the microbes that hike in on bodies and that are exhaled from breath make new lives in caverns, colonizing with mold and fungus and even simple carbon dioxide. There's no walking without altering.

Lascaux <https://en.wikipedia.org/wiki/Lascaux>

So instead, visitors go to replica caves, built above-ground in fastidious facsimile of the original, with sound, humidity, and temperature all controlled to emulate the cave beneath. Lascaux has three of these replicas, with varying degrees of faithfulness to their source material. You could visit all three in one day and make a date of it.

1.1 Replicas > Lascaux II > Other **facsimiles** of Lascaux have also been produced over the years. <https://en.wikipedia.org/wiki/Facsimile>

A facsimile is a kind of monument - a memorial to a thing which, even if still extant, cannot be viewed. They are for looking without violence. Or rather - for looking with an approved kind of violence, with the knowledge that a facsimile can always be remade and lose nothing.

middle of intro paragraph > **media preservation** > https://en.wikipedia.org/wiki/Media_preservation

It is hard to predict what will be wanted in the future, which doesn't stop people from trying.

second sentence > **time capsules** > https://en.wikipedia.org/wiki/Time_capsule

The last century has seen the rise of the time capsule, a cultural invention that despite all appearances is for the now, not the later. A time capsule is made so that you may believe some part of you will last - will be remembered. No matter that they are inevitably fairly uninteresting upon their opening, full of - to quote - "useless junk", albeit pristine and new new useless junk.

20th century -> second to last paragraph - > **KEO** <https://en.wikipedia.org/wiki/KEO>

There are even time capsules buried in space - the Pioneer projects, and the Voyager probes, and someday possibly KEO, a proposed artificial comet that has been set back some twenty years, with a timeline that is more launch delays than updates.

KEO is made to carry DVDs, as well as some terrestrial samples. It will have a 50,000 year periodic orbit, and on re-entry its thermal layer is designed to burn off to create an artificial aurora.

Time capsules are fine examples of speculation. They are stories about what humanity is, with every rough edge smoothed over for sake of looking good for the future.

contents -> last link > **Library of Alexandria** https://en.wikipedia.org/wiki/Library_of_Alexandria

speaking of narratives - did you know the library of Alexandria didn't burn?

3 Decline > https://en.wikipedia.org/wiki/Library_of_Alexandria#Decline

there was possibly a warehouse fire at some point which took some scrolls, but all evidence points to a library that simply experienced a slow decline in prestige and cultural importance over a period of centuries, until its collection was divvied out slowly to other institutions and finally lost.

scroll all the way back to top > middle paragraph of intro > **circumference of the earth** https://en.wikipedia.org/wiki/Earth%27s_circumference

chris marker wrote about a time traveller who conquered time.

first sentence > **Earth** > <https://en.wikipedia.org/wiki/Earth>

he remembers with perfect recall every detail of his life. he wishes to cry unbidden at music, feel his heart quicken and not know the cause. this is why he returns to our time - to witness the love of people who love without understanding why.

see also > **Timeline of the far future** https://en.wikipedia.org/wiki/Timeline_of_the_far_future (intercutting..)

but my time traveller comes from further. he recalls not every detail of his life, but of all time - he extrapolates what will come from the perfect detail of the present. and by studying the present, he also knows the past.

like the scientists who trace in the air (unable to touch the painted wall, their touch a corruption) the movement of the cave-bear marks - painter, then bear, then painter, then bear again - he can excavate from the present moment, scything both directions in time until it is all one flat panel of inevitability.

for my time traveller, there is no need for museums. every object is an equal archive. everything present has achieved total density. he walks the earth completely untethered. transparent, time melts away from him. he has not come to now from the future. he simply sees it all, unraveling. he lives, as much as anyone like him can be said to live, floating.

this brings another meaning to the phrase 'until the end of time'.

second table - > **Humanity and human constructs > 1 million years -> various public monuments** https://en.wikipedia.org/wiki/Category:Granite_sculptures

it is monuments that most desire eternity. they operate on a different time scale than us - furious, focused memories carved from materials that resist change.

g > **Greyfriars Bobby Fountain** > https://en.wikipedia.org/wiki/Greyfriars_Bobby_Fountain

click on photo BUT DO NOT CLICK TO ZOOM IN so you don't break chain

but even monuments live in public. you can see evidence of the visitors to the greyfriars bobby fountain in the shine of his nose, which is rubbed for good luck. the tarnish comes up, and some of the bronze with it - enough so that local officials have attempted to curb the practice, for fear of degradation. a rounding made by many hands.

Greyfriars Bobby > https://en.wikipedia.org/wiki/Greyfriars_Bobby

and many hands over a relatively short time - this photo of the fountain, from 2003 (to the last's 2017), shows a nose still patina-ed. even images in the wikimedia commons catch the motions.

greyfriars bobby was a terrier who lived for 2 years with a breathing man. he then lived for 14 years above a dead one. what love must have existed in those two years to ask for 14 following of devotion. or- from another angle- what cruelty must exist in this world to resign a dog to sleep on the grave of a dead man for 5100 consecutive nights.

see also -> **List of individual dogs** > https://en.wikipedia.org/wiki/List_of_individual_dogs

greyfriars bobby is not the only dog to be memorialized in this way. stories of loyal animals are popular fodder. they become monument when they are gone - the best of us, they are brave - loyal - smart- went into the unknown - saved a life. when they were violent, it was not their fault. they simply were doing what they were asked to do.

plus, well, everyone loves a statue of a dog. they are the kinds of statues that invite you to rub their noses in passing.

intro sentence > **dogs** > <https://en.wikipedia.org/wiki/Dog> -

canis familiaris - canine of the household, dogs were domesticated some 15,000 years ago, before grapes, but after painting - probably. the line between wolf and dog is a fuzzy one, and some anthropologists claim a species friendship that goes far longer. regardless, they were the first domesticated species, and this can be seen on a genetic level, with a set of gene-based cognitive changes directly oriented at understanding and communicating with humans.

6 roles with humans > **6.2 Workers** > last sentence 1st paragraph> **laika** <https://en.wikipedia.org/wiki/Laika> -

there are a lot of famous dogs, but few with stories like Laika. a stray, pulled off the street a week before the launch of Sputnik 2, Laika was the first living creature in orbit.

although other space-faring dogs returned to earth and resumed normal lives, even giving birth to puppies - one of which was sent to john f. kennedy - laika was never intended to return. before the launch, she was taken home by a mission scientist to play with his children. he wrote, later: "Laika was quiet and charming ... I wanted to do something nice for her: She had so little time left to live."

Official documents from the launch call her by a variety of names, including Little Bug, Little Lemon, and Curly. It wasn't until after, that Laika- barker- was settled on. She has several statues and a plaque, as well as a postage stamp and a brand of cigarettes and, of course, an entire wikipedia article under her name.

See also > **Transportation of animals** https://en.wikipedia.org/wiki/Transportation_of_animals

is this propaganda or memorial? it's both, of course- most things are.

second sentence > **livestock** <https://en.wikipedia.org/wiki/Livestock>

i started this year with an expectation of lambs.

middle first paragraph > **sheep** <https://en.wikipedia.org/wiki/Sheep>

my sheep are a hardy breed, well adapted to the desert and generally needing little help with anything other than the reliable arrival of hay in their pasture. so i was surprised to find one of my ewes in a hard and early labor in the first week of january.

contents > 5 Reproduction <https://en.wikipedia.org/wiki/Sheep#Reproduction>

sheep are born feet-first, followed by the head, then the shoulders. the lambs orient themselves in the womb, diving into life like dolphins. I knew something was wrong right away, of course, but didn't really grasp the severity of it until i saw the limp little head, dangling from the body like an apple. i intervened, delivered a dead lamb, buried it in a deep but tiny grave on top of the hill, in the pet cemetery that i inherited with the house.

scroll back to top > last link intro > **sacrificial animals** https://en.wikipedia.org/wiki/Animal_sacrifice

i never met animals in the pet cemetery, but i've been going up to pay my respects to chucho, red, angel, and the 4 other marked but unnamed graves for years. i think of all the pets i've had to leave buried behind houses i once lived in, a renter who could not take my beloved bones with me, and hope someone else does the same. the lamb joins them.

first link > **ritual** <https://en.wikipedia.org/wiki/Ritual>

all life makes cemeteries. the headstones are their own kind of monument, even if the pet graves are made of rough-carved wood, already bleaching to brittleness in the sun. sticking up from the hilltop, they are like a pincushion - each pinning the now to the past. "i lived" "i ran" "i barked".

3.3 Death, mourning, and funerary rites > Further information: **Funeral** <https://en.wikipedia.org/wiki/Funeral>

I wonder sometimes if it is the tragedy itself that cuts the gap through time; severs the threads of history and stitches the event to the now, present here today preserved by the jagged edges of its own violence, or if it is instead the marker, which in its solidness attempts to interrupt the flow of time and halt its smoothing work. like a deep pit in the river.

Overview > middle > **flower** | pollen <https://en.wikipedia.org/wiki/Flower>

only last week, i found a pair of the unmet chuchos dogtags, unearthed in the sheep pen by the the turning of hooves. they are shaped like little bones. they are still in my jacket pocket - i worry them when i am out in public. they replaced a small agate pebble that i carried for many years, my fingers turning it into a teardrop shape. i lost it a few months ago - though i'm hoping it might still be in some more esoteric pocket, or fallen into the lining of my greatcoat. i used to lose it every winter, after all, when i put the coats away in the spring.

See also > **List of garden plants** https://en.wikipedia.org/wiki/List_of_garden_plants_in_North_America

Given how small the earth and how many the people who have walked on it, it is hard to imagine that there are any sites where a memorial could not be placed, where tragedy has not struck in large or small.

c > **Calluna (heather)** > <https://en.wikipedia.org/wiki/Calluna>

Heather grows pink, but can occasionally bloom white.

right sidebar > Clade: **Asterids** > <https://en.wikipedia.org/wiki/Asterids>

It is a wild mutation- rises unbidden out of a normal population.

phylogenetic tree > **Asterales** <https://en.wikipedia.org/wiki/Asterales>

but it is said that it will bloom white only where no blood has ever been spilled.

right sidebar> families > **Asteraceae - Asters** <https://en.wikipedia.org/wiki/Asteraceae>

Heather is specific, growing in particular region. Yarrow is almost universal.

5 Uses > last link, first paragraph > **yarrow** https://en.wikipedia.org/wiki/Achillea_millefolium

A friendly plant, it precedes people - no matter where you walk it often isn't far. White petals, feathery leaves. It has a hundred names and a hundred uses- stomach upset, tooth ache, astringent. But its main use was to staunch wounds.

For this, it has been called bloodwort, knight's milfoil, staunchweed, and woundwort.

it was said that the centaur Chiron taught Achilles to use yarrow on the battlegrounds of Troy. From this, it took its latin name; Achillea millefolium - Achilles thousand-leaf

scroll up > second para of intro > **Europe** <https://en.wikipedia.org/wiki/Europe>

4 Geography > 4.1 Climate > Temperatures in °C > **Helsinki** <https://en.wikipedia.org/wiki/Helsinki>

The first time I ever saw pink yarrow was on the island of Suomenlinna, off the coast of Helsinki.

sidebar right - pictures caption (no clickthrough) - > **Suomenlinna** <https://en.wikipedia.org/wiki/Suomenlinna>

Suomenlinna was a sea fortress, built as a star fort in the 18th century. It saw a dozen wars, then a prison. There is still a penal labor camp on the island, among the few full-time residents and the picknicing tourists.

I was there at midsummer. Longest day, there was sunset, but no night- I swam in the ocean at 2 in the morning, and still could not see the stars for the glow at the horizon. By sunrise, I was dry and walking along the enforced battlements, looking out to sea. in the cracks of the stone walls grow flowers, and although i didn't know most of them, there was yarrow- of course. but it was blooming pink and purple - like the color of wild heather. i picked a flowerhead, and pressed it in my paperback.

second paragraph of intro > **star fort** (or bastion fort) > https://en.wikipedia.org/wiki/Bastion_fort

i later learned that a primary mutagen for yarrow includes gunpowder.

intro sentence > **gunpowder** <https://en.wikipedia.org/wiki/Gunpowder>

history is full of riverstones, memories that have been turned in the water so many times that they have become rounded, become soft.

end of first paragraph > **mining** <https://en.wikipedia.org/wiki/Mining>

the ground remembers the gunpowder but many of the people are busy forgetting it, or telling a story about the memory of gunpowder, the smell of it, the taste, the danger, the role it played in the great war - but never again the cutting acrid moment when it bloomed like a flower across the much-younger battlements, no moss between the stones, to propel a thing of danger into the night. the horror of that. the jagged violence.

middle first paragraph > **potash** <https://en.wikipedia.org/wiki/Potash>

look. i'm doing it now. rounding a story.

middle second paragraph > **fertilizer** <https://en.wikipedia.org/wiki/Fertilizer>

there is no explicability until after. thats the job of the editor, maybe, and the impulse that turns the world into encyclopedia entires.

second para > **agricultural industry** https://en.wikipedia.org/wiki/Industrial_agriculture

i do understand this - it is so hard to catch the specificity of moments. trying, i fall into unnecessary hyperbole. i know i have this tendency, an overbearing that comes from wanting to make sure that i am understood, that i catch it, that i really show you.

but rereading the words, it's always too-much, too-eager; in editing, i find myself winnowing, rounding, until there is little of the original left.

despite my feelings about citational truth, i do much the same. i cannot tell you i felt this way. so i just tell you i was here.

when i write letters, they say things like -

end of 1st para > **fruits** <https://en.wikipedia.org/wiki/Fruit>

there is a fire going in the woodstove. the clouds have settled in over the stars. i am eating lemon cake.

of course, i am saying these things with a desperate specificity, as if each does hold the entirety of that moment.

4 Classification of fruits > 4.1 Simple fruits > Pome > **Pears** <https://en.wikipedia.org/wiki/Pear>

today i ate a pear; i saw a rabbit; i swept the kitchen.

5 cultivation > 5.2 Harvest > **climacteric fruits**, [https://en.wikipedia.org/wiki/Climacteric_\(botany\)](https://en.wikipedia.org/wiki/Climacteric_(botany))

i want you to understand that I grew that pear myself, that i watered the sapling i planted last year three times a week, all summer. that when it surprised me with a half dozen pink-blushed fruits in the fall, i had to look up how to properly harvest them because i'd never grown pears before.

overview > **fruit ripening** > <https://en.wikipedia.org/wiki/Ripening>

how i found in the reading that unlike many fruits, pears are not best right off the tree. instead, they sweeten in the cold and the dark of a root cellar, the sugars concentrating and permeating the flesh until it becomes softer, rounder.

second sentence > **sweeter** <https://en.wikipedia.org/wiki/Sweetness>

how i've left them in the back of my refrigerator since september. and when i finally cut one open today with my knife with the cherrywood handle, it was as if a whole season of sunlight spilled out onto my kitchen table.

second link > **perceived** <https://en.wikipedia.org/wiki/Perception>

the rabbit, the broom, the lemon cake, the woodstove- i want you to *understand* that each of these moments succeeded in catching me- holding, for a second, all of my attention and my devotion. like the pear, each wrapped me up in the solidness of life, suspended me in it, even if just for a second.

near end 3rd paragraph > **Perceptual issues in philosophy** > https://en.wikipedia.org/wiki/Philosophy_of_perception

still - it isn't enough. there are no words the record this- it is the job of the world, and the world only, to have have that moment of time. the rest is facsimile, memorial, propaganda, story, article.

intro > **ontological** > <https://en.wikipedia.org/wiki/Ontology>

so, i write instead, hoping you'll fill the gaps: i've put a log on the fire. you can see the moon, out my window. i've just shushed my dogs, who were barking.

philosophical > <https://en.wikipedia.org/wiki/Philosophy>

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