



DERKÉTA

Stacks Explorer Documentation

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Late Summer 2018



Modern connotations of the word “epic” are in some ways misleading when we turn to the Homeric poems, the texts that began the Western epic tradition. The Greek word *epos* means simply “word” or “story” or “song.” It is related to a verb meaning “to say” or “to tell,” which is used (in a form with a prefix) in the first line of the poem. The narrator commands the Muse, “Tell me”: *enn-epe*. An epic poem is, at its root, simply a tale that is told.

The *Odyssey* is grand or (in modern terms) “epic” in scope: it is over twelve thousand lines long. The poem is elevated in style, composed entirely in a regular poetic rhythm, a six-beat line (dactylic hexameter), and its vocabulary was not that used by ordinary Greeks in everyday speech, in any time or place. The language contains a strange mixture of words from different periods of time, and from Greek dialects associated with different regions. A handful of words in Homer were incomprehensible to Greeks of the classical period. The syntax is relatively simple, but the words and phrases, in these combinations, are unlike the way that anybody ever actually spoke. The style is, from a modern perspective, strange: it is full of repetitions, redundancies, and formulaic expressions. These mark the poem’s debt to a long tradition of storytelling and suggest that we are in a world that is at least partly continuous with a distant, half-forgotten past...



Ossified Forever Wrong

Andante
Processional feel

Devin
The middle of 2017

Voice

1. You can feel it when the summer breaks,
2. I am silent at the di-al tone,

Let Ring

even out a thousand miles a-way.
pa-per ty-rant, I am o-ver-thrown.

hammer pull

Pull-ing hand-fuls of sand in-to my mouth.
I am washed and di-sec-ted, cat-a-logged.

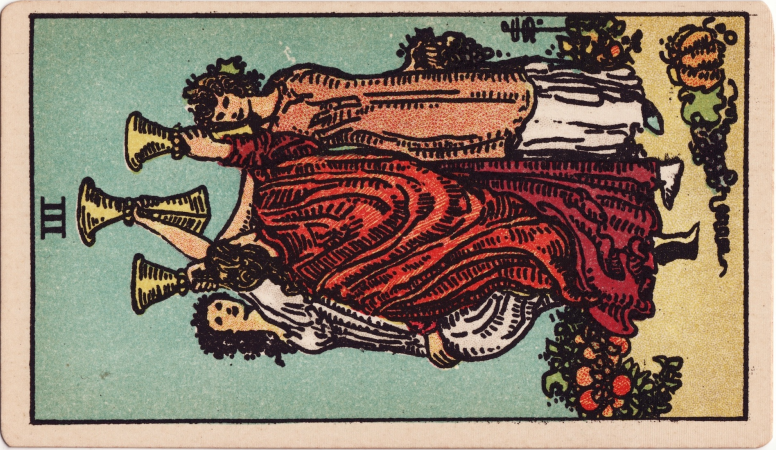
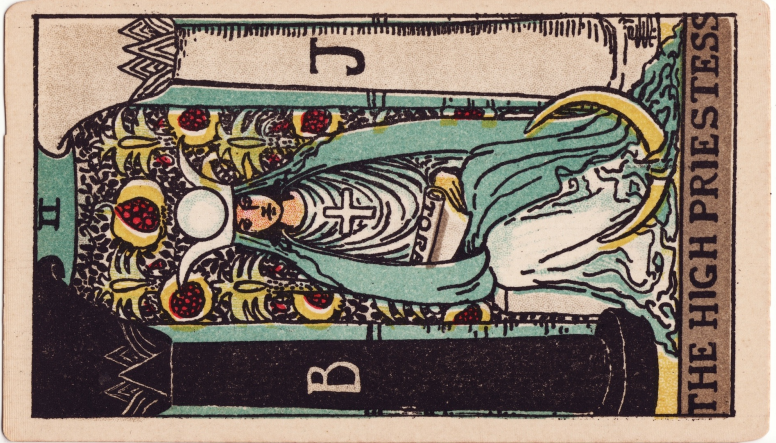
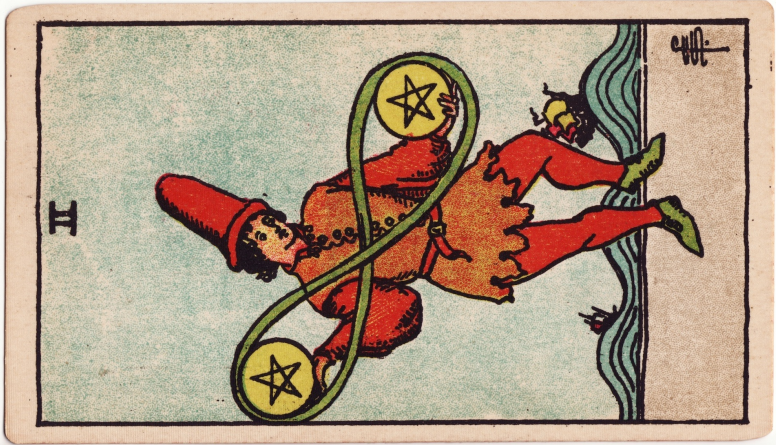
It's the taste of me-tal is-land, pa-tience on the wa-ter ways.
I am shelved and then for-go-tten, o-ssi-fied for-e-ver wrong.

At the foun-tain I am struck still, o-ver-flow-

ing on the gold hill. To- wer rise un-til the light-ning

strikes down, I'll de-cay in-to the slow earth some-how. some-how.

1. 2.



Translator's Note

The Prelinger Library is a small, appropriation-friendly library and communal space which lives on the second floor of a multi-unit building in Soma (its neighbors include several dance studios, which keeps the diagetic soundtrack surprising). It has books, maps, periodicals, (etc etc) housed in stacks, and a large ephemera collection, which is organized alphabetically by subject.¹

The library is much, *much* more than this, but a concise description is beyond my reach. Megan and Rick sometimes describe it as an extension of their living room, or a physical manifestation of their shared interests. You should visit sometime.

What the Prelingers asked me to do specifically was “photograph the stacks.” While gameplanning this, I realized that I could do it in a way that would fit nicely into a web interface, which might help facilitate off-site research requests.

After finishing the photos and showing them a rough version of the website, they asked if I could add general topics for each shelf, and explore linking this physically-oriented interface with the digitized material in [their Archive.org collection](#). This required a bit more footwork, but — owing to the way we had approached the workflow at the outset — dovetailed smoothly into the project.

And here's what we *weren't* going for: The Prelinger Library doesn't keep a catalog, nor is it particularly well-suited for one. The Prelingers frequently access and de-access material, and the library uses a unique taxonomy — which is designed to encourage exploration, includes unusual subject overlaps, and supports (rather than discourages) the occasional shuffling of material from one place to another.

So this collection of photos — and the subsequent viewing interface — would (1) necessarily be fixed at a particular point in time in the library's accession history, and (2) should support and encourage the mode of exploration which makes this library unique (rather than shoehorning its material into a more standard, but ill-fitting system).

Finally, after everything was mostly complete, they asked me to write some documentation, in case other libraries or archives were interested in putting something like this together. Here, I've elected to use Emily Wilson's approach.

¹ This collection is kept in archival boxes which are not, in fact, “deceptively bland,” but rather: quietly mysterious. They rise in grey columns like megalithic plinths in the lavender gloaming of the vernal equinox.

IBM's Glass Engine Revisited: An Interview, Kinda

It was the dawn of the new millennium, and while I was covering my GeoCities page with X-Files gifs, Mark Podlaseck, a researcher with IBM's T.J. Watson Center, was on the phone with Phillip Glass.

Glass was facing an uncommon problem: His music was in high demand for media placements (film, TV, etc), but the size of his decades-long body of work meant that both his licensing team and the clients were getting swamped while trying to find the goldilocks-perfect musical cue for the placement.

Podlaseck was recommended to Glass by his longtime collaborator Robert Israel (who had been contracted to direct the effects for IBM's first interactive annual report on CD-ROM). And Podlaseck was the right person for the job: his research focus was on large databases, but he had always kept a foot in the arts. Glass and Podlaseck worked through various ideas, until eventually settling on a design which harkened back to "scanning the dials" on an analog radio.

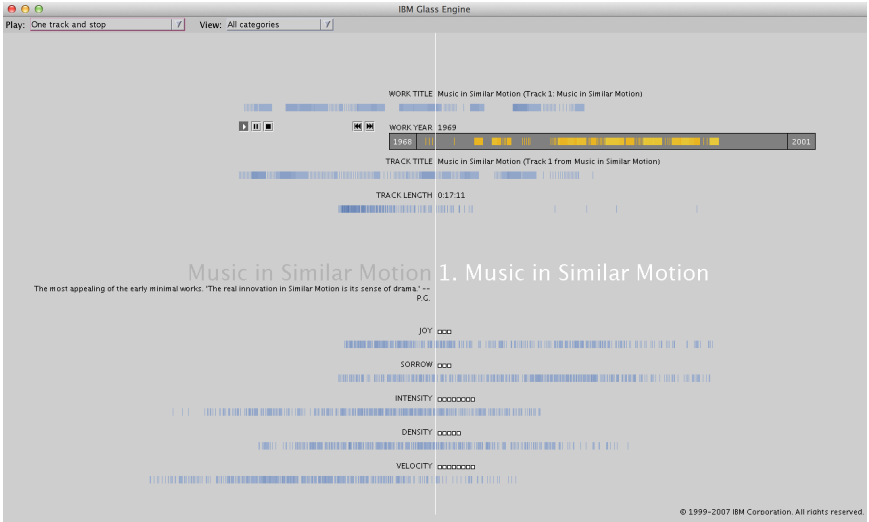
The team entered the title, publication date, and runtime for each piece of Glass' music into a database, along with scores in five aesthetic categories: Joy, Sorrow, Intensity, Density, and Velocity. They subdivided larger works into movements and cues. Then, most radically, they uploaded every piece of music in MP3.

So the user of the Glass Engine is presented with a series of draggable sliders, where they can (for example) slide the Joy scale up to 100% or the Velocity scale down to 20% – and then the Engine locates the closest-matching piece of music and plays the MP3. You can set it to stop after one track, or auto-play the next track along whichever slider you have selected (Intensity, publication date, etc).

Keep in mind this was all built between 1999 and 2003.² And when the site went live, it caused quite a splash: NYT covered it, the IBM crew published an academic paper in IEEE MultiMedia, notable designers (including Edward Tufte) weighed in; it's got a chapter in MIT Press' UX tome *Designing Interactions*. But today – just like my GeoCities page – the URL is dead, and the Wayback Machine's copy is broken.

On a whim, I emailed Podlaseck – and, to my surprise, he tossed me an unlinked archival URL on Glass' site, and wished me luck on getting it up and running.

² For reference: Napster launched in June '98, and Spotify a decade later in October '08.



It's a chore. You have to re-enable Quicktime plugins, re-install Java, and edit your security settings — all while your browser and OS repeatedly bark warnings at you — but with some patience, you can get it to work. And it's wild: sort of a Web 1.0 version of the in-browser [interactive D3 visualizations](#) which were in vogue a few years ago (before we all started to need a little break from our screens as the news cycle erupted into chaos).

But the extant writing about the Glass Engine suffers from a common blind spot in tech documentation: the authors focus on the decisions which brought the project to fruition, but neglected to address the thinking which went into the project's lifespan. This (somewhat default) writing approach seems to position web design in the world of ephemera: produced to meet a particular need at a particular time, and happily pulped when the next issue drops.

I asked Mark if he would mind answering a few interview questions about this, but then he got kinda swamped, and then I got kinda swamped, and then it just kinda fizzled — hey sometimes that's just how it goes.

We're still in touch, though! And at some point in the pastel future, he might get back to me — the door is always open. But in the mean time, I'm just gonna put these questions out there, because they formed a path of sorts...

Q: When you started working on the Glass Engine in '99, what sorts of design or technology changes — and specifically deprecation cycles — had you already experienced? For example, had you worked on anything for CP/M, OS/2, or other systems which were moving towards obsolescence or had already gone?

Q: What was your expectation (or intention) for the lifespan of the project?

Q: At the time, choosing to do this project as a Java applet seems like the natural choice, and – given its subsequent impact – was probably the right one. But, did you have any expectations about the lifespan of Java applets themselves? ie: Did you imagine that in ten years, it would be non-trivial (discouraged, really!) for the average internet user to run them?

Q: This is a little general, but I'll leave it open-ended: When approaching a new project, how do you consider the relationship between the project's design and the technologies which will be used to implement it? Has your thinking about this changed over time?

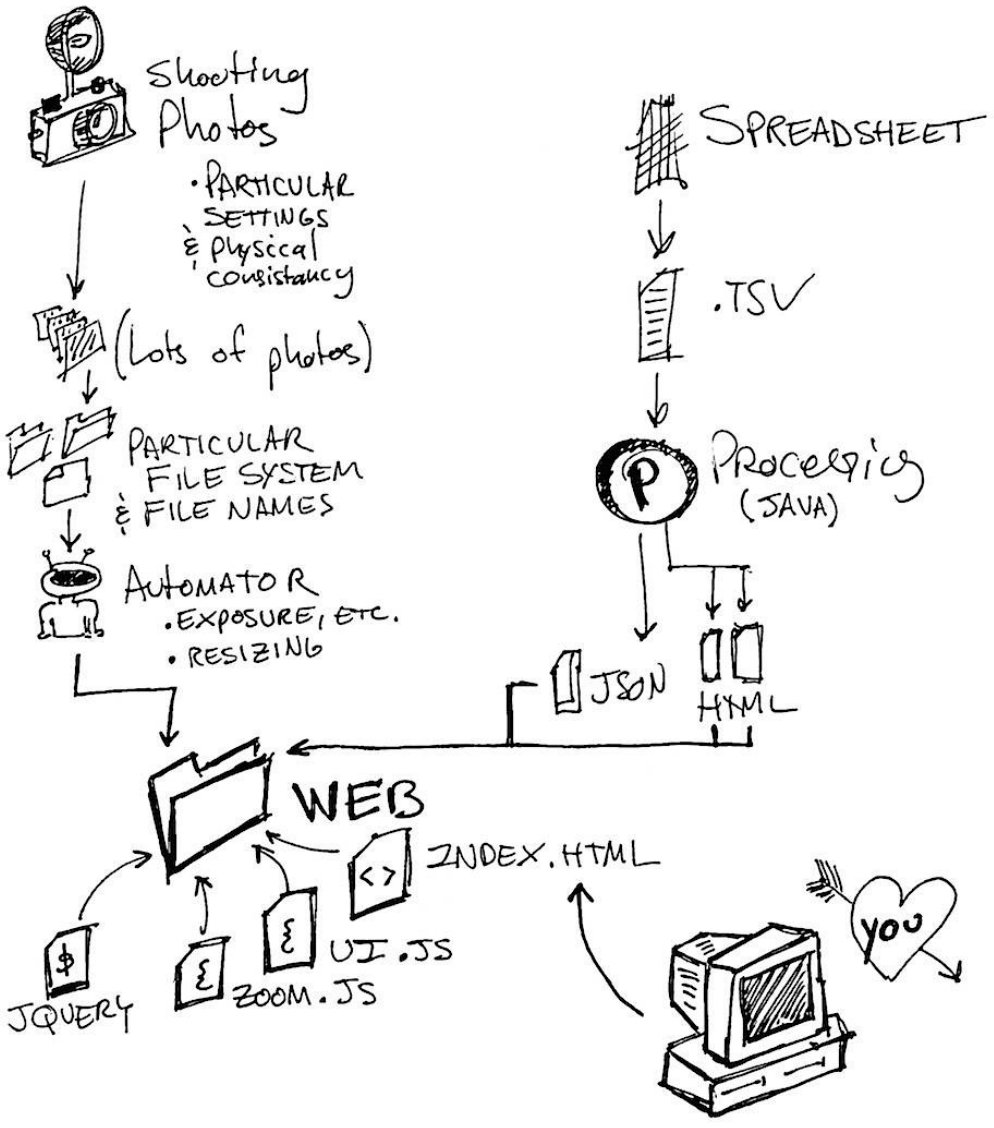
Q: In pop music, I've noticed there are occasionally small arrangement and production trends towards "timelessness" as a new style is ascending.³ I'm curious if you've noticed something similar among designers, as a new wave of design tools, technologies, and (for lack of a better term) paradigms are becoming available?

Q: Some of the artists I know are currently fluctuating between a feeling of inspiration from the wealth of new tools available, and a feeling of decision fatigue, where they instead limit their tool set in order to focus their creative energy. Have you found your relationship to your tool set has changed over time? When you find yourself deciding *not* to use an available tool, how do you normally come to this decision?

Q: Do you have any advice for designers on considering transience/permanence at the outset of a project?

³ For example: I was working as a karaoke transcriber when "Say Something," "Stay," and "When I was Your Man" – all unadorned piano ballads which include no recent slang in the lyrics – went to #1 within about a year, while at the same time, Pop/EDM crossovers were becoming hugely popular.

PRELINGER LIBRARY STACKS EXPLORER WORKFLOW





Let's Get in Formation

*"An ounce of preparation is worth a pound of regret."
- My mom, slightly misquoting Ben Franklin*

Before we get into the weeds here, keep in mind this project was basically DIY: I used whatever stuff I had on-hand and knew how to use. There is, of course, more than one way to hug a cat!

I'm going to step through the photography and web workflows separately, but both of these were expedited by deciding on a naming convention up-front.

From start to finish, we always used:
[Stack - Bank - Row - Depth] formatted as [##-##-##-Δ].

This might seem kinda basic / obvious in retrospect, but it ended up saving a ton of headaches further down the line. These sorts of small organizational steps can be easy to overlook, which is why I wanted to call out this one specifically.

Photography

The Prelinger Library's open hours change from month to month based on the hosts' schedules ([check the website!](#)). I primarily shot on Wednesday and Friday afternoons, in sessions lasting from 2 to 5 hours. The photography took from September 2017 to April 2018, punctuated by several breaks for travel and juggling [various other projects](#).

I borrowed my wife's [Sony \$\alpha\$ 5000 mirrorless DSLR](#) for this. (Thanks Amy!)

In Brief:

- F-stop fixed at f8, automatic shutter speed, auto focus
- Fixed white balance
- Photo size: 4546 x 3064 px @ 350 dpi (16:9)
- No additional light sources
- No additional fancy equipment (but...)

In Detail:

The lighting in the Prelinger Library is quite varied in brightness and color – and the length of the project also introduced seasonal variations in natural light (the southwestern wall of the library features a large bank of windows). We decided not to use external light sources or flash, because the resultant photos looked too divergent from the space as-is and reflections from dust covers sometimes made the spine text unreadable.

I settled on using an automatic shutter speed (to keep the exposure levels similar) and a fixed aperture (to keep the depth of field consistent). And we eventually discovered the light's color variation was actually an asset: In the full stack composites, the color gradations help to spatially orient the viewer (the bluer end of the stack is always toward the windows).

Another happy accident: although the camera's sensor is naturally 4:3, the width and height of two shelves is almost exactly 16:9. So, the tradeoff of some slight photographic aberration at the negation of an extra cropping step made shooting in 16:9 the preferable choice.

With the exception of a cheap Slik tripod (a level was 100% necessary), I didn't purchase any additional equipment... but this part of the project would probably benefit the most from an additional budget. For example, putting together something like a mobile cart with a custom tripod/scaffolding and pro fill lights with diffusers would make this go much quicker for a larger space.

Staying Organized

Shooting stationary, rectangular stacks seems pretty straightforward – but in reality it can get very messy, very quickly.

I generally tried to shoot in order, but ended up skipping around if someone was doing research in a particular stack, or if certain ladders were in use, or there were boxes or tables in certain places (etc etc etc). Also, every photo looked more-or-less identical in thumbnails, and the default filenames on the memory card were all unhelpful alphanumeric strings.

Establishing (and sticking to) a workflow for shooting, transferring, and renaming files was critical. I drew out grids for each stack on graph paper, and took notes to keep myself on track. Every time I finished shooting a single row,⁴ I marked it on the paper chart, transferred the photos to my computer, renamed them using a Processing sketch, and filed them in clearly-named folders.

Editing / Automation

After I finished shooting, I ran the full photo set through Apple's Automator, making minor adjustments to exposure, contrast, and color. Automator is quick and dirty, but fairly limited; while building the web interface, I needed more fine-grain control over JPEG compression, for which I used Apple's command-line utility SIPS. (If you need anything more advanced than this, FFmpeg is your one-stop shop.)

⁴ I shot across a single row rather than up/down a single bank, which allowed me to keep the tripod set at one vertical height rather than raising or lowering it for every shot.

	ISLAND	OXEN	MIGHT	DISPLEASURE	ANOTHER	SONGS	HIGH	LOSS
TOWN	MIDDLE	DRAUGHTS	CHEAP	MORTAL	OTHER	MOST	GOOD	CHIEF
CITIES	GODDESS	PAGES	BONES	MEN	FUNERAL	ANOTHER	DAUGHTER	SONS
NATIONS	LIVES	WINE	WILDERNESS	FRIENDS	RITES	DAILY	SON	CHIEF
MANNERS	DAUGHTER	TABLES	MEN	DAYS	DUE	SPEECH	MONEY	MEN
CUSTOMS	MAGICIAN	SPONGES	LEGS	MOUND	BARROW	UPSTAIRS	TWENTY	LIKES
LIFE	LOOKS	OUT	MONEY	HEIR	FAIR	DEAR	OXEN	MARRIAGE
MEN	CARRIES	QUANTITIES	PEOPLE	NOW	MEANS	HUSBAND	HOUSEHOLD	GIFTS
MIGHT	COLUMNS	ELSE	TOWN	BEHIND	SUITORS	SUITORS	NOW	DAY
SHEER	HEAVEN	SUITORS	MANNER	NOTHING	INFANCY	MIGHT	OTHER	DAY
FOLLY	EARTH	OUT	CREW	GRIEF	PEOPLE	THING	WOMEN	FAT
CATTLE	DAUGHTER	DAYS	NATION	LOSS	MURDERER	MORNING	DOOR	GOATS
GOD	POOR	STRANGER	STRANGER	HEAVEN	IMPATIENT	ASSEMBLY	SHIRT	QUANTITY
DAUGHTER	KEEPS	FOOD	FOOD	DAYS	SORROWS	KIND	OTHER	WINE
NOW	KIND	WAY	VISITORS	ANOTHER	BATH	HEAVEN	DOOR	ESTATE
DEATH	NOTHING	OTHER	SON	CHIEFS	WAY	SUITORS	SILVER	NOW
WIFE	LIBERAL	SPEARS	KING	ISLAND	BEAUTY	LIPS	MEANS	DAYS
GODDESS	OFFERINGS	CLOTH	VOYAGE	PRINCIPAL	KEEPSAKE	BOLDNESS	NIGHT	GOOD
YEARS	GODS	ANOTHER	MEN	MEN	DEAR	SON	VOYAGE	TREATMENT
GODS	KING	MIGHT	CARGO	PRETEXT	FRIENDS	GODS	NOW	CONSCIENCES
TROUBLES	SON	NOISE	LIES	NEITHER	WAY	LESSONS	CHILD	PUBLIC
GODS	NYMPH	MIGHT	YONDER	MATTERS	GOOD	CHIEF	SANDALS	WRATH
NOW	DAUGHTER	MAID	COUNTRY	HAVOC	WORDS	GOD	WORD	GODS
NOW	TORMENTS	SERVANT	MOUNTAIN	FIRST	BIRD	CHIEF	PEOPLE	NOW
WEST	HEADS	SILVER	FATHERS	HANDS	STRANGER	FATE	PEOPLE	OUT
OTHER	OUT	BASEIN	FRIENDS	ARROWS	SUITORS	BAD	ASSEMBLY	ACTION
SHEEP	SON	SERVANT	TOWN	SON	HEARERS	THING	HOUNDS	NOTICES
OTHER	KING	GOOD	LIVES	GODS	TALE	RICHES	PRESENCE	NOW
GODS	GODS	THINGS	DINNER	SUITORS	DAUGHTER	NOW	WAY	YEARS
GODS	NOW	PLATES	GODS	SHRIFT	SONG	MEN	INFINITE	OUT
MEN	FIRST	MANNER	ISLAND	RESTS	SUITORS	OTHER	FIRST	MESSAGES
MOMENT	MERCURY	MEATS	PRISONER	HEAVEN	POSTS	CHIEF	SON	OTHER
SON	ISLAND	CUPS	SAVAGES	REVENGE	CLOISTERS	SON	DINNER	HERO
OTHER	CALYPSO	GOLD	RESOURCE	SUITORS	MAIDEN	RESTS	SONS	READINESS
MEN	MINDS	WINE	CHAINS	HEROES	ANOTHER	HEAVEN	DAYS	DEATH
GODS	MEANTIME	OUT	MEANS	ASSEMBLY	FEAT	CHIEF	LOYD	WOMEN
NOTHING	SON	SUITORS	FELLOW	HEAVEN	GODS	VIOLENCE	FINDS	OUT
WIFE	OUT	PLACES	FRIENDS	SUITORS	POETS	GOOD	OTHER	WEB
DEATH	SUITORS	BENCHES	SON	HUSBAND	SUITORS	COUNTRY	PUBLIC	DAY
MERCURY	SHEEP	MEN	CHILD	MARRIAGE	WINE	FAMILY	SPEECH	NIGHT
REVENGE	ANYTHING	SERVANTS	SON	GIFTS	BREAKS	NEWS	GOOD	STITCHES
MERCURY	DEAR	MAIDS	HEAVEN	DEAR	HUSBAND	BUSINESS	OMEN	WAY
GOOD	PEOPLE	PAGES	OUT	DAUGHTER	MIDDLE	MOMENT	MIDDLE	YEARS
NOW	RANKS	WINE	SON	CREW	BARD	REACHES	ASSEMBLY	NOW
EVERYTHING	HEROES	HANDS	WEDDING	TWENTY	BARDS	FAITH	GOOD	MAIDS
SON	SUMMITS	GOOD	PROVISIONS	QUEST	WOE	SOOTHSAYER	MOST	AIRS
KING	GATEWAY	THINGS	WHOLE	PEOPLE	MANKIND	SON	PUBLIC	ACCOMPLISHMENT
ELSE	CHIEF	ENOUGH	ENOUGH	THINGS	GOOD	CHIEF	MOMENT	S
NEITHER	BRONZE	MUSIC	PERSON	FIRST	FELLOW	FRIEND	TURNS	WOMEN
SUFFERINGS	SUITORS	SERVANT	REGARDS	WAY	MEANS	SUITORS	MISFORTUNES	NOTHING
POOR	HIDES	LOW	GODS	SUITORS	PEOPLE	NIGHT	FIRST	FAIR
HEAVEN	FRIEND	HIGH	GOOD	TEN	WATCHES	MEAT'S	HEAVEN	ANYTHING
NOW	NOTHING	OTHERS	PROPERTY	BEAUTY	NIGHT	PORTION	BAD	NEITHER
NEITHER	SUITORS	WAY	NOW	MOST	ENOUGH	DARK	DISPLEASURE	DUTY
CHOICE	PRESENCE	GOINGS	NEITHER	WINE	FAIR	KNIGHT	DAUGHTER	REPORTS
OTHER	HUSBAND	SON	CREW	BARLEY	HEAVEN	GUESTS	SONS	SON
DAUGHTER	MARRIAGE	FOLLY	PASSENGER	MEAL	MORTALS	SIR	SONS	SON
HEAVEN	GIFTS	PEOPLE	MEANWHILE	ANOTHER	CITY	PORT	HEAVY	MEN
LEAVES	DEAR	THING	OTHERS	TOWN	NOW	SEAS	PEOPLE	FOLLOWERS
CALF	DAUGHTER	WANTS	DINNER	SON	PEOPLE	COURAGE	MIGHT	DEATH
THING	NEITHER	PEOPLE	DEATH	DARKNESS	BULLS	GOOD	GODS	SAFE
NOTHING	ESTATE	MENTOR	FRIENDS	SHIPS	LORD	PRIVATE	MINDS	OUT
ELSEWHERE	LEAVES	BOY	WINE	CREW	GUILDS	PUBLIC	FEET	WORLD
HOUSES	DAY	SUITORS	ANOTHER	GODDESS	HUNDRED	NEWS	MINDS	BAD
OTHER	DAY	HANDS	PLENTY	SUITORS	MEN	TOWN	NIGHT	HANDS
HEAVEN	OTHER	GREY	PROPERTY	CUPS	BULLS	COMPANY	MISCHIEF	GOOD
EAGLES	OTHER	GOD	GOLD	TOWN	MEATS	FATE	MORNING	THING
MIDDLE	WOMEN	SEAS	BRONZE	EYES	THIGH	OTHER	SHIPS	SON
ASSEMBLY	DUE	LIKENESS	LINEN	HEAVY	BONES	HEROES	WOMEN	BEHIND
WINGS	WAY	NEITHER	OLIVE	CREW	CREW	REGARDS	HALF	MURDERER
DEATH	TREATS	COWARD	CASKS	HASTE	WAY	HEAVEN	BEHIND	METTLE
EYES	OTHER	HALF	GOD	DOORS	VOYAGE	KNOWLEDGE	OTHER	SON
PEOPLE	GODS	VOYAGE	VEINS	STORES	OUT	WAVES	SHIPS	HEAVEN
OTHER	PEOPLE	VEINS	FAITHFUL	ANYTHING	CONVERSATIONS	MELANCHOLY	HEAVEN	MIGHT
MIGHT	NOW	LIKELIHOOD	DAUGHTER	MAID	HEAVEN	OTHER	SACRIFICES	VENGEANCE
PROPHET	CREW	SONS	SONS	SERVANTS	GODS	THINGS	SHIPS	INSOLENC
READER	TWENTY	GOOD	EVERYTHING	WORDS	BIRTH	OUT	PEACE	GODS
OMENS	MEN	MEN	NIGHT	WAY	STEPS	NOW	SHIPS	HAPPINESS
MEN	QUEST	COWARD	WINE	OTHERS	GUILDS	SORROW	MISCHIEF	HAVOC
MISCHIEF	PEOPLE	COMMON	POOR	THINGS	PEOPLE	CITY	SON	PUBLIC
OUT	THINGS	NEITHER	WAY	STERN	COMPANY	KING	CREWS	HEAVEN
DEATH	WAY	DEATH	BAGS	MEN	DINNER	MEN	MINDS	SCOUNDRELS
ANOTHER	SUITORS	FRIEND	BARLEY	PLACES	PIECES	GODS	OUTSIDE	BEHIND
WICKEDNESS	ANOTHER	PROVISIONS	TWENTY	FAIR	MEAT	DEAR	ISLAND	GODS
SUITORS	OTHER	EVERYTHING	MEASURES	BLUE	OTHER	SON	INSIDE	GOD
DUE	FUNERAL	WINE	THINGS	WAVES	PIECES	FLEET	HEAVEN	NOTHING
EVERYTHING	RITES	BARLEY	NOTHING	ROPES	STRANGERS	MORTAL	OUT	GODS
OUT	DUE	TOWN	EVERYTHING	MAST	SON	WHOLE	DANGER	GOOD
HARDSHIP	BARROW	VOLUNTEERS	UPSTAIRS	SOCKET	SHEEPSKINS	TALE	SHIPS	FORTUNE
MEN	WORDS	SHIPS	ANYTHING	FAST	SANDS	YEARS	FAIR	HEAVEN
YEAR	MENTOR	OUT	DEAR	WHITE	BROTHER	KIND	QUICK	SAFE
NOW	FRIEND	DAUGHTER	DEAR	SAILS	PORTIONS	HEAVEN	PASSAGE	TREACHERY
SON	EVERYTHING	GODDESS	NOTION	ROPES	MEATS	PEOPLE	NIGHT	DEATH
OMENS	AUTHORITY	SUITORS	WORLD	OX	WINE	AGES	SACRIFICES	OUR
BIRDS	HONESTY	GOATS	POOR	OUT	KING	KIND	DAYS	GODS
SUNSHINE	MEN	PIGS	COUNTRY	BLUE	FRIEND	DIFFERENCE	MEN	GODS
SOMEWHERE	KIND	NEITHER	NOBODY	BOWS	LIFTS	FIRST	SHIPS	SOMETHING
OMENS	RULER	CREW	OUT	FAST	HANDS	NEITHER	DAY	ELSE
ENOUGH	CHIEFS	NEWS	POSSESSIONS	OFFERINGS	GOD	PURPOSE	HEAVEN	GENERATIONS
SOMETHING	HALF	KIND	LIFE	GODS	GODS	MIGHT	FIRST	BARROW
TALKS	VIOLENCE	MEN	OUT	DAUGHTER	SERVANTS	CITY	FAIR	OUTSIDE
FIRST	HEADS	ENOUGH	NOTHING	WAY	PEOPLE	SHIPS	DEAR	CITY



How Much Does The Odyssey Weigh?

As one of the foundational texts of the Western canon, the *The Odyssey*'s physical heft re-enforces its historical heft.⁵ But, when stripped of all that paper, binding, contextual gravitas, and encoded as a plain text file... it weighs in at a featherweight 611 kb. To a computer, [TheOdyssey.txt](#) is eclipsed by the towering 3,200 kb of [Sk8erBoi.mp3](#), crushed under the gargantuan 2,290,000 kb of [I_Walked_With_A_Zombie_1943.mkv](#).

The ability of computers to quickly manipulate text remains a wellspring of odd artistic exploration. For example, hacking together a Processing sketch with [RiTa](#) to load *The Odyssey* and extract all the nouns took just a couple of minutes, and [the sketch itself](#) took only a few seconds to run. But making this table took well over an hour, counting travel time:

TRANSLATOR	DATE	WEIGHT
Murray	1909	0 lb 11.3 oz
Shewring	1980	0 lb 13.2 oz
Fagles	1996	0 lb 14.4 oz
Palmer	2003	1 lb 04.1 oz
Fitzgerald	1961	1 lb 06.2 oz
Green	2018	2 lb 02.8 oz
Wilson	2018	2 lb 03.5 oz
Pope	1942	2 lb 04.7 oz

⁵ And amid the post-digital distribution critical discourse around “the death of the album” in pop music, it’s perhaps worth noting that *The Odyssey*’s contemporaneous performers were generally in the habit of skipping around and reciting “the hits” which audiences knew and loved, with only occasional forays into the “deep cuts” upon request.

100,000 Scrolling Marquees

When approached programmatically, the simplicity of plain-old HTML delivers a huge bang for the buck. Take scrolling marquees for example.⁶ To make one of these bad puppies, you just have to add opening and closing tags, like this:

```
<marquee> Text </marquee>
```

< . . . TEXT

OK, great! But you know what would be even better? Building these automatically:

```
int numberOfMarquees = 3;
String[] HTMLStrings = new String[numberOfMarquees];
for (int i=0; i<numberOfMarquees; i++) {
    int randomSpeed = int(random(3, 7));
    HTMLStrings[i] =
        ("<marquee scrollamount=\"" + randomSpeed + "\">"
         + "Marquee #" + (i+1) + " !!!" + "</marquee>");
};
saveStrings("output.html", HTMLStrings);
```

< . . . MARQUEE #1 !!!

< . . . MARQUEE #2 !!!

< . . . MARQUEE #3 !!!

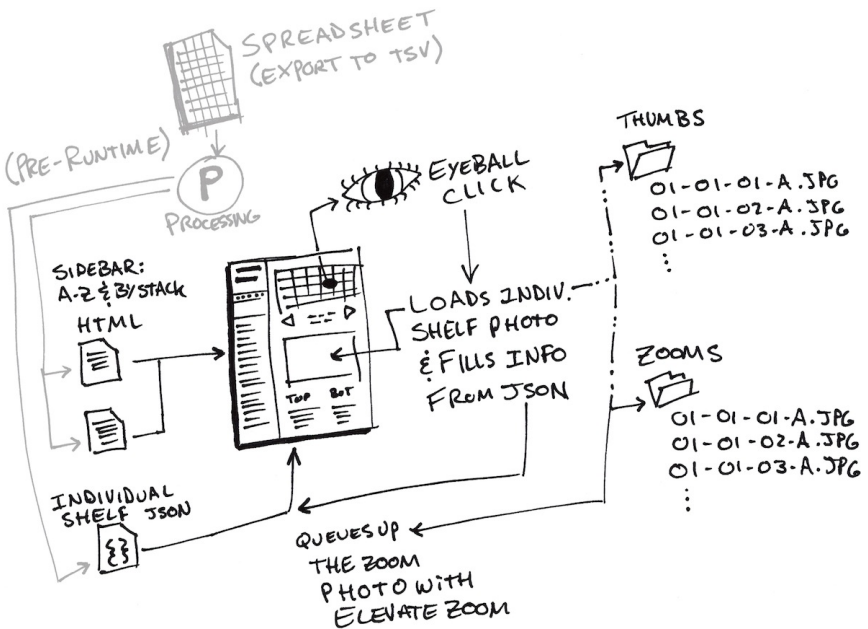
...And now all you have to do is change `numberOfMarquees` from 3 to 100000.

⁶ Though it was introduced as a nonstandard IE-specific element to one-up Netscape's `<blink>` tag and its usage is broadly frowned upon by designers who adhere to best practices, the `<marquee>` tag is none-the-less still widely interpreted correctly by most browsers – because it's *awesome* and everybody knows it.

Web Interface

Even moreso than the photography, the number of ways you could do this is considerable. As such, the decision-making involved was equally grounded in personal / artistic preference as in technical demands. The sections titled “IBM’s Glass Engine Revisited” and “Coin Drop of the Month” might help shed some light on some of the less-intuitive decisions I made here.⁷

The source code is available at prelingerlibrary.org/stacks/about/code



⁷ Foremost among which were probably: (1) to arrange the layout around large horizontal images, thereby assuming a large horizontal screen (and ignoring specific formatting for mobile, which, as of May 2018, accounts for 63% of all web traffic and rising), and (2) limiting the languages used to HTML + CSS, and JS + JQuery, with the use of only one external JQuery library. (Jose Aguinaga’s “[How it feels to learn Javascript in 2016](#)” lightheartedly captures the waking nightmare of this particular aspect of web design in the late 2010s.)

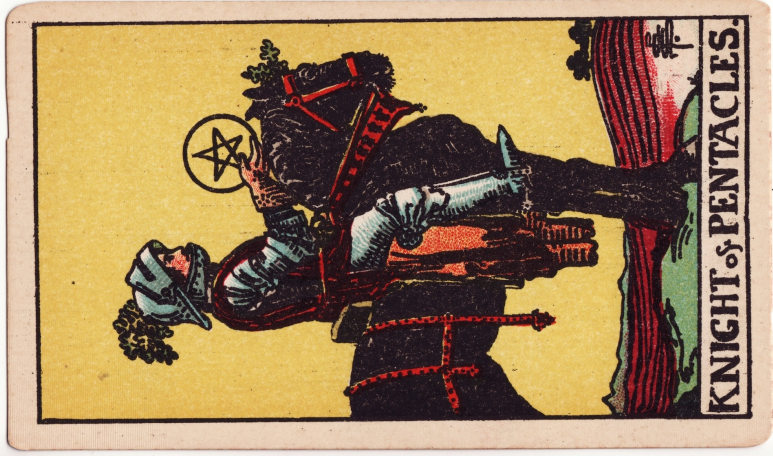
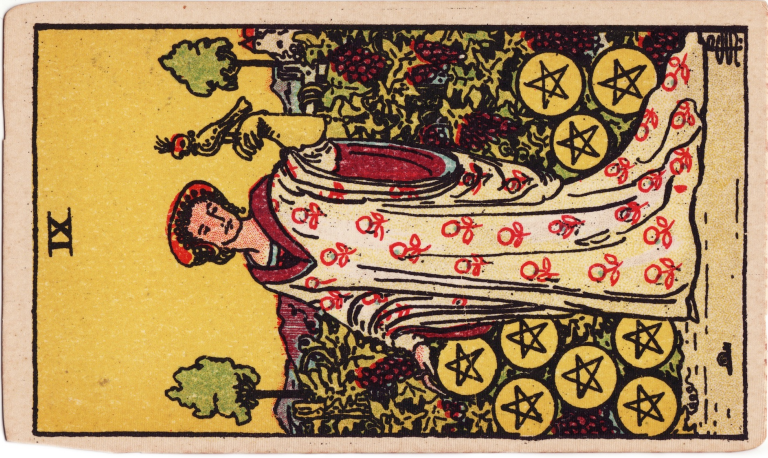
Pre-Runtime

- Export the spreadsheet from google docs (a list of every shelf, with a list of comma-separated topics for each), and run it through the Processing sketch.
- The Processing sketch exports:
 - Two HTML files, which are used for the sidebar. (The alphabetically-sorted list is shown by default, and the user can switch between the two afterward.)⁸
 - One JSON file, which is organized by the topics found on each individual shelf.

Runtime

- The user can click on the stack photo (the eyeball) to jump to a particular shelf:
 - A JQuery function figures out where on the stack photo they clicked. This location is used to:
 - Load the individual shelf photo below the stack
 - Pass the larger mouseover photo to [elevateZoom](#)
 - Read the new shelf's topics from the JSON, and set the HTML below the shelf photo (using the same markup structure as the sidebar)
 - Update the “you are here” text.
- The user can click a topic (either in the sidebar or in the individual shelf topics below the shelf photo) to reveal a hidden-by-default list of locations where that topic is present. They can then click on one of these locations to jump there:
 - A JQuery selector gets the location text, and performs the steps above.
 - A reverse version of the function used above is used to place the eyeball in this new location on the appropriate stack photo.
- If the user clicks the archive.org link, the text from the parent topic heading is used to generate a search URL, which is opened in a new tab.
- Several other JS/JQuery functions are used for small subtasks.

⁸ These contain a bunch of `<div>`s, which each contain an `<h3>` for the topic title and a `` for the list of shelf locations where that topic appears (which always ends with the archive.org link). Both the `<h3>` and `` objects house standard empty `` links, the text of the link itself is parsed in JQuery to load the linked location's photo.



Programming is a Pentacles Activity

In Tarot decks which draw from the Waite-Smith iconography, the minor arcana's Pentacles suit relates to one's day-to-day labors. Within this deck's renaissance visual styling, and coupled with the Pentacles' association with the Earth element, the suit's imagery involves primarily vineyards, stonemasonry, and metalwork. And for those unfortunate few still reeling from the infernal shockwaves of the Satanic Panic, fear not: The earliest Mameluke and Chinese decks which migrated to Europe in the 1300s include this suit as the Coins, a convention which is still often employed and remains metaphorically present.⁹

When I started using the Tarot, I intuitively vibed with the Pentacles, and they remain my favorite suit. (Though the Swords – so keenly depicting the apocalyptic flavor of artistic failure in the suit's larger numbers¹⁰ – remain entrancing in their opacity). Personally, I feel most satisfied when my days are filled with regular expeditions into the meditative/abnegative state engendered by immersion/elision with precise creative tools. And though I find enjoyably divergent flavors of this experience across several mediums, programming provides perhaps the most distilled version of it. The toolset itself – instructing a computer through arcane, mystical incantations alone – claims an unparalleled and bizarre precision for filling endless blank pages with ink.

Most days, programming is the Eight. You're just sitting on the bench, hammering out code and tacking it up on the program. The programmer/metalworker is positioned outside the town – unbothered by the clatter of carriages and the stray jangle of emails – in order to zone in and get the work done. Note the curious pentacle lying on the ground; I've come to understand this as emphasizing the importance of seamlessly weaving editing, revision, and cleanup into the workflow without breaking concentration.

The Pentacles' court is somewhat more lowkey and contemplative than their counterparts (Compare the Swords' sexy Page and hard-charging Knight, or the mysterious Queen of Wands – enthroned, with lions and sunflowers, like a desert mirage against the rising pyramids, gazing offscreen while her black cat breaks the fourth wall). In the Pentacles court, the Page's charming endemic naivety becomes the sentence, "Sure! Rewriting these functions should only take, like, an hour – how hard could it be?"

⁹ "The Esoteric Tarot" by Ronald Decker, 2013

¹⁰ In the Waite-Smith deck, the Swords and Wands begin at ten and descend to Ace before moving to the court cards. This is intended to signify the path of focusing one's ideas and passions (respectively) to a single point. If you find this idea kinda judgy, keep in mind the Tarot is in no-way-shape-or-form set in stone. It is appropriation-friendly: you are free to use or remake it however you please.

The Knight of Pentacles is the only Knight depicted in stillness; his cape hangs motionless over the smooth black coat of his steed. (Even the Knight of Cups, whose horse majestically saunters on parade, sports the wings of Mercury.) His look is concerned: the Knight of Pentacles longs for the headlong charge of the Swords or the epic leap of the Wands – but knows that success in the Kingdom of Pentacles lies in slow, dedicated, methodical work. His Knightly strengths (vigor and sprint) are, in a sense, detrimental – and Knights are never happy with too much time on their hands.

Typical project-level problems arise in the middle of the suit. The Four is when you're unwilling to rework your spaghetti code, even though you realize your program would benefit in the long run. "The program works fine as it is," you tell yourself – fevered and defensive, you desperately clutch the kludgey strings which have poisoned your mind, overtaken your crown. The Five indicates a loss of balance: too much ornate or overly-abbreviated code without commenting or documentation – or that you're neglecting other important aspects of your life while engrossed in a project. (When I pull the Five, I usually put my work down and go for a walk.) The Six is about managing expectations and using your time wisely.

Towards the end of a large project, I sometimes hit a Seven moment: Standing, forlorn, in front of this unruly tangle of fruiting branches – simultaneously pleased with the fecundity and realizing that there's nowhere to fit this last goddamned pentacle. The Nine and Ten reflect two phases of a project's completion: the quiet satisfaction of well-factored code, and the raucous utility (and inevitable hiccups) when other people start using your program.

You return, at last, from the hidden furrows and cloistered workbench to the wagging puppers and bustle of the city.



Derkéta was (probably) the first all-female American Death Metal band, formed in Pittsburg in 1988. They're a death-doom band, meaning the tempos crawl and the riffs hang slow and heavy like a wall of fog in the night.

As is still largely the case, in the late 80s there were few women involved in the death metal scene — either as musicians or enthusiasts. In a sort of chicken & egg way, both the aesthetics and culture surrounding the music are coded as stereotypically masculine: it is an artistic space voiced with guttural, growling basso and illustrated with horror film gore.

As Sharon Bascovsky (Derkéta's vocalist and primary songwriter) describes it, her intention wasn't specifically to form an all-female group, but rather that the small number of women in the area's scene naturally became acquainted. So when the time came to start a new project, calling up drummer Terri Heggen was the natural choice.

They self-released two cassette tapes in 1988 and '89 (The first was self-recorded in a basement on a 4-track; The second at Alternative Studios on an 8-track Fostex). The label Seraphic Decay released two songs from the '89 session on a 7" in 1990. The band worked with bassists Kim August and Heidi Franks before prolific underground journeywoman Mary Bielich joined up in '91. Although this is generally seen as the solidified lineup, the group's time together was short-lived: they had broken up by the year's end, owing to creative differences.

Heggen and Bielich would go on to form Slag-9 with Robin Mazen (who was on deck to join Derkéta before the band split). Also in '91, Heggen and Bielich teamed up with guitarist/vocalist Dana Duffey to form Mythic, which became

perhaps the most well-known female death metal band of the 90s. They released a few cassette tapes and an EP on Relapse Records before disbanding in '92-93.¹¹

Bascovsky tentatively resumed working on Derkéta material in 1997, recording a few tracks with drummer Jim Sadist of Nunslaughter, which were released on two split 7"s in '99 and '03 (*Begotten Son / Evil Dreams* on Deliria, and *Behold the Legions of Hell* on Iron Bonehead). Around this time, she was also playing bass in Eviscium, and when that band started to wind down, she decided to pursue reviving Derkéta in earnest.

In 2006, Bascovsky reached out to the '91 lineup (plus Mazen), seeing if they would be interesting in recording new material. Originally, her idea was to finally record a proper full-length, before retiring the band for good. The project commenced, but – as anyone who's tried to wrangle a five-member band will surely understand – it took six years until the album was fully completed, owing to scheduling and repeated recording and production problems.

In Death We Meet, released in May of 2012, is a tidal wave.



I've been thinking about the influence of time in the art-making process. When I was in my early 20s, everything was *now! now! now!*¹² I felt like my mind was boiling over; my art-making was propelled by the need to ladle everything out before it splashed onto the stove – regardless of how sloppy the finished product was. Maybe the bread you baked today failed to rise; but no matter, because tomorrow's might billow and *poof* like a miracle.

At present, the most accessible and widely-used online distribution/promotion tools available to artists (Instagram, Twitter, Facebook, YouTube, etc) reward frequent-and-temporally-limited working practices by collapsing the disparate scopes of individual works into a standardized format, in order to maximize the captivation metrics these companies use to bamboozle their investors.¹³

A ❤ for WarAndPeace.pdf weighs exactly the same as a ❤ for MyLunch.jpg.

And these frequent-and-temporally-limited working practices are, in some ways, very comfortable: The creative act feels nicely contained, complete, final. Working on longer projects can sometimes introduce a weird psychological tension: seeing an unfinished romper on the dressform day after day, it's hard not to scrutinize

¹¹ Mythic's legacy would eventually be tarnished by Duffey's racist comments in later interviews.

¹² I turned 34 during this project.

¹³ "Captivating algorithms: Recommender systems as traps" Nick Seaver, 2018.

every little seam and dart; every knifestroke in the acrylic; maybe should these be commas instead of semicolons?

In the course of executing a long project, new albums will drop, new books flutter skyward, news cycles spin endlessly into the void — as long as the artwork percolates unfinished on your desk, all of these things can leak into it; change the flavor, bend the edges, incinerate it completely.



I wanna talk about Terri Lewis for a minute.

Among the members of Derkéta, Lewis (néé Heggen) seems at first to be less “active” because her public body of work includes long stretches of silence. But this reading comes from a certain fictional/romantic/propagandistic notion about artists: that our art-making should outweigh all other aspects of our lives. Rilke’s first letter to the “young poet” Kappus codifies this sentiment with the eloquent swish of a fine tawny port:

This most of all: ask yourself in the most silent hour of your night: must I write? Dig into yourself for a deep answer. And if this answer rings out in assent, if you meet this solemn question with a strong, simple “I must,” then build your life in accordance with this necessity; your whole life, even into its humblest and most indifferent hour, must become a sign and witness to this impulse.

As musicians who gravitate toward the stylistic extremes tend to be, Lewis is a straight-shooter in interviews. But what’s notable about her perspective is that she’s highly focused on (for lack of a better phrase) her art-life balance; and she is serious about the weight of life. The weight of a relationship. The weight of one’s day-to-day. She had intentionally approached her part in the band’s reformation as in support of recording the new album; After it was finished, she amicably departed Derkéta, and returned to tending the garden of her life.

Things are different when you’re boiling over in 1988 and when you’re taking the long view in 2012. But in the same way that a twitter card collapses artworks’ disparate sizes, a google search jumbles the delicate river of an individual’s life into a scattered ballpit of disparate years — grainy black and white analog photos, scanned photocopies of old zines, digital shots bathed in saturation, filtered selfies, etc etc etc — and we sometimes find ourselves accidentally enshrined in the frantic, unsustainable mania of our reckless youth.

And the Rilkes of the world are likewise no longer restrained by ink, paper, bone, flesh, grave, or decay... their seductive, poisonous blockquotes hover immortal like the swirling incense of night; golden melismas drifting from the isle of the sirens; the floating pollen which lures Dorothy into blackout as she dazzles, twirling, helpless, in an endless pastel field of flowers.



As we meander further and further into The Internet Age,
it becomes increasingly impossible to tell how much anything weighs.

We will all need, like Terri Lewis,
to develop a keen internal sense of balance.

Coin Drop Of The Month

801 Lighthouse Avenue, Pacific Grove, CA. September 28, 2018

It's a postcard perfect day on the Central Coast, and the water rolls into a brilliant screensaver turquoise as it gently sweeps the rocky shore.

Here in Monterey, you will find, of course, the Aquarium – snuggled right up against the chaos and commerce of Cannery Row: A touristy shopping enclave, home to genre staples like taffy pulls and hat shops, with some California-specific entrants like “The Enlightenment Zone,” which features a red neon sign in the window advertising “GEODES.”

Cannery Row is fascinating, because it positions its history as front-and-center to the browsing experience – shopping edutainment! Tucked between taco shops and crystal kiosks you will find plaques, posters, photos, and busts, each swishing another brush stroke in the dreamy portrait the district wants to post in the Instagram of your mind: a sort of Highwaymen school golden-hour scene, nicely adjusted from Florida's iridescent glow into California's earthier palette.

The centerpiece of these historical attractions is the Cannery Row Monument at Steinbeck Plaza, a fountain-encircled stone populated with life-sized, sweetly verdigrised statues in loving, detailed realism. A plaque provides a key to these figures,¹⁴ and (surprisingly) reveals it to be one of the few monuments in California which openly acknowledges the presence of sex workers in our predominantly male 19th and early 20th c. waterfront communities. Even so, that this figure remains unnamed – identified only as “one of [Madam Flora Woods'] girls” – underscores how the history of this workforce remains piecemeal, as narratives from the workers themselves often went, and still go, unrecorded.

The only other unnamed figure this monument is included to acknowledge the presence of the thriving Chinese fishing village at Point Alone which existed prior to Cannery Row, “on this very shore, which today borders one of the most beautiful maritime sanctuaries in the world.” (read: This well-established population was displaced via arson and expulsion when a subsidiary of the Southern Pacific Railroad purchased the land; the charred remnants of the village were later “bulldozed over the cliff into the sea”).¹⁵ A placid figure in handsome dress, he crouches at the edge of the fountain's basin with fishing line in hand.

He is also – interestingly for a statue about Cannery Row – the only man in this statue depicted with a prominent tool of manual labor. The four named men

¹⁴ Cannery Row Monument plaque

¹⁵ “Monterey Excavation Reveals Chinese Fishing Village” by Pter Fimrite for SF Gate, 2010. Historical groups in Pacific Grove participate in an annual Walk of Remembrance each spring.

higher up on the reverse side of the rock play cards and, in the invisible swirls of their cigar smoke, weave plans for the tourist hotspot in which you are now standing. All the while Steinbeck gazes sagely from the monument's apex; windswept, paper at the ready, on the cusp of "imortaliz[ing]" the scene through the arcane magic of inscription alone.¹⁶



If you travel West along the slowly curving inclines of Lighthouse Avenue, you will find yourself, at the edge of the Earth, at the Point Pinos Lighthouse – small and perfect like a dream. Though its interior is now a museum rather than a residence, it remains the oldest continuously functioning lighthouse on the West Coast, having gone dark only for repairs following the 1906 earthquake and the mandatory blackouts during WWII.

In the museum, you can see how the lamp's distinctively ridged "third-order" fresnel lens focuses and amplifies the relatively modest wattage of the bulb miles and miles out to sea; and watch the inner workings of the hand-cranked eclipser (which was replaced by an electronic circuit in 1940 – thus changing this lighthouse's characteristic on/off pattern from 30s/10s to 3s/1s).

And here, you are invited to take a moment and put yourself in the shoes of Charlotte Layton. She served as the assistant when her husband took the principal keeper post only a year prior – but on a cold November night in 1855, she was informed that he had been gunned down while participating in a posse to catch the beautiful, but infamously vicious bandido Anastacio García¹⁷ – leaving her to care for four children, alone. With the support of Monterey's residents, she moved up to primary keeper, becoming the first woman to hold the position on the West Coast.¹⁸

But a mile or two back on Lighthouse Ave, there is another, much smaller memorial. You could be forgiven if you missed it on the way over – it's easy to miss. For one, it's not actually *on* Lighthouse, but rather a couple feet up on the cross-street Willow; and for another – as far as I can tell – there's no physical signage anywhere indicating where it is or that it even exists.

¹⁶ This literary torch appears to be burning alive and well in one of the local weeklies I picked up, the Carmel Pine Cone, wherein the ordinary goings-on of a small town ("Doggie Dream House Comes With Bragging Rights," "Ocean Avenue Construction Havoc to End Soon," "Hawk Attack on Kindergarten Playground") are spun in a surprisingly compelling style.

¹⁷ See Ch.3 in "Bandido: The Life And Times of Tiburcio Vasquez" by John Boessenecker, 2010

¹⁸ Some historians argue Nerva Wines of the Faralon Islands (who accepted her post with her husband as assistant keeper in 1856) should more appropriately be credited.

If you do stop here, you will find yourself in the middle of a lovely, but otherwise unremarkable residential street lined with single-unit detached houses and townhomes in a mix of easygoing beachy styles — a typical well-to-do prewar coastal suburb. The house on the corner is a two-story Victorian with a detached garage, painted a light navy blue and shaded under the moss-hung branches of an impressive Monterey Pine.

And just to left of the pathway which runs from the corner to the front door, there's a square of concrete in the sidewalk conspicuously less sun-faded than its compatriots, with a plaque about a foot across laid into it; Standard-issue cast bronze with beveled edges. Across the top, it announces "IEEE Milestone In Electrical Engineering And Computing..."

The CP/M Operating System, 1974

Dr. Gary A. Kildall demonstrated the first working prototype of CP/M (Control Program for Microcomputers) in Pacific Grove in 1974. Together with his invention of the BIOS (Basic Input Output System), Kildall's operating system allowed a microprocessor-based computer to communicate with a disk drive storage unit and provided an important foundation for the personal computer revolution.



Outside the small world of old-hand programmers, computer historians, and vintage tech enthusiasts, the name Gary Kildall has been largely forgotten. The reasons for this are varied, but mostly come down to problems with narrative — story-telling.

("Enn-epε," I command, but the Muse answers only with a shrug and a casual puff of her Newport Slim 120.)¹⁹

The first problem is that Kildall's work is often framed as a bridge from one era to another as opposed to a discrete landing point. General audience histories sometimes gloss over linking figures like these in favor of framing the story around an era's highly visible icons: in pop, we often hear how Grunge (Nirvana) killed off Hair Metal (Warrant), ignoring the handful of bands who freely drew from both styles.²⁰ And this is shame, because individuals with one foot between worlds often create interesting work, specifically because it doesn't fit cleanly into either.

¹⁹ "Why They Stretched The Slims" by Cathryn Jakobson for NYT Magazine, 1986

²⁰ The LA band Love/Hate's excitingly strange (and in many ways problematic) 1992 album *Wasted In America* is a notable example of this. Heart's 1983 album *Passionworks* is another interesting in-betweener which deftly negotiates '70s and '80s radio rock production and writing styles.

But, even worse — *crime of all crimes!* — Kildall's work was an under-the-hood sort of thing that's difficult to write about without slipping into the snoozy lexicon of instruction manuals. As odd as this might sound, given the context of this document — I personally find writing about computers seems to flow easiest when I eschew the gory, mono-spaced details entirely, and instead splash impressionistic watercolor across the page:

The Countess of Lovelace survived her Victorian corseting to pour the water of life into Babbage's invisible chalice.

Steve Jobs, having bathed his mind in LSD, pilgrimaged to the Hermetic Temple of Xerox PARC, and returned to deliver his vision of sound and color to the masses.

Continuing — beginning, rather — in this absurdist, oneiric idiom:

To Grace Hopper, a computer was not a window, but the twisting passages within the Great Pyramid of Cheops; where, at last, in the inner sanctum, premonitions illuminating the arc of falling ordinance and conquered enemies were revealed.

After the war, computers began to descend upon government, academic, and corporate institutions like a conquering race of gigantic, otherworldly machine beings. For children of the 80s and beyond, the computers of the 40s, 50s, and 60s all seem to occupy a uniform, mythic flavor of *bigness* — cathedralic in hushed, woven rows of hand-braided cable and polished industrial cabinetry. But at the time, as new inventions sprung from the well-funded Khachaturian twirling of R&D labs, there were distinct divisions between the power and scope of different classes of machines intended for different uses.

Minicomputers emerged fully-armed like Athena from the split, frothing skull of the mainframes. But microcomputers ascended from the dirt, like man gifted stolen fire...

(Sorry for all the mixed metaphors, I'm trying my best here. The Muse snort-chuckles and smiles like a circling shark as the ring of my collar begins to dampen with flop sweat — total amateur hour.)

... but here we must stop — and look to the sea.



Gary Kildall died unexpectedly at the age of 52, in the summer of 1994. After a day of motorcycling, he collapsed in a bar in Monterey. We don't know if the fall caused the hemorrhage, or the other way around. While an untimely and extremely unfortunate loss, it is perhaps fitting that his last few days were spent on the road — he had always reveled in the pleasures of fast machines; the roar of engines above the heat of the pavement, over the rhythm of ocean waves, and through the transparent swirl of the clouds.

The Kildall men are men of the sea: Gary’s grandfather Harold was offshore for months, crossing the Atlantic as the Chief Mate of a steamship in the 1920s. After coming in to port at last at the request of his wife Gwendolyn, he established a nautical school in Seattle. Their son Joseph followed suit, gaining a Master Ocean License, “the top rank in merchant shipping.” When America became involved in the war, Joseph and Harold “trained the skippers of the Victory Ships that dodged those Wolfpack U-boats to bring supplies to the war effort in Europe.”

We know all of this because, unlike Steve Jobs, Kildall wrote his own memoir. Smartly bound in a red cover with gold lettering, he had sent a pre-release manuscript to friends and family for fact-checking and editorial comment around Christmas of 1993, before he hoped to have it go into final edits and print the following year. After his death, the book was shelved.

In 2016, The Computer History Museum uploaded about half of it, along with a loving remembrance from his children, Scott and Kristin.²¹ Of these missing segments, they comment, “Unfortunately Gary’s passion for life also manifested in a struggle with alcoholism, and we feel that the unpublished preface and later chapters do not reflect his true self.”

Aside from this, the text is unmediated. Kildall’s writing has the relaxed, assured pacing of a natural raconteur; it digresses into unexpected anecdotes, indulges in self-deprecating humor, and is spiced with occasional typos.



Having grown up among the charts, rigging, and flotsam of “Kildall’s College of Nautical Knowledge,” he was teaching classes by the early ’60s, and his father and grandfather wanted Gary to take up the mantle in earnest after he finished high school. But Gary decided to apply to the University of Washington instead.

This was actually something of a Hail Marry: Gary was going through his “greaser” phase in high school, and his grades were so poor that he was held back a year. But the fates work in mysterious ways: during this repeat year, he was seated next to Dorothy McEwin, who in the coming years would transition from sweetheart to spouse. And in the end, his teaching experience at the Nautical School was the item which pulled his application into the acceptance pile.

He buckled down at UW and dove into higher mathematics, which eventually led to an interest in computers. In 1965, the CS curriculum started with learning assembly on an IBM 7094 mainframe, the laboriousness of which he recounts with parodic absurdity. He was on deck to enter UW’s first CS Master’s program when his draft notice came in the mail.

²¹ “[In His Own Words: Gary Kildall](#)” Computer History Museum

Having no interest in killing or dying in Vietnam, after he (unfortunately) passed all of the medical checks, he managed to join up with the Navy on the recommendation of one his dad's buddies. His assignment was deferred while he finished his Master's at UW and simultaneously completed his Ensign training at Officer Candidate School over the summers.

He (obviously) blew through the Navy's navigation classes, and was eventually assigned to teach data processing to seaman apprentices, using hopelessly antiquated telephone-switchboard-esq machines from WWII. Upon graduating in '69, the Captain of UW's Reserve Officer Training Corps called him in, and ordered him to sit down...

"Mr. Kildall, you have a choice to make." Well, the Captain proposed that I could either be an officer on a destroyer off the coast of Viet Nam or take the post as an Instructor in Mathematics and Computer Science at the Naval Postgraduate School at Monterey, California. This particular question made me understand the length of a microsecond. "Well, sir, I would like dearly to serve my country in battle, but I think I shall take the second option, if you please."

Captain Williams warned that if I taught at the Naval Postgraduate School, I would probably not reach the level of Admiral. I took a pensive stance for a moment and then told him that I would accept that risk.



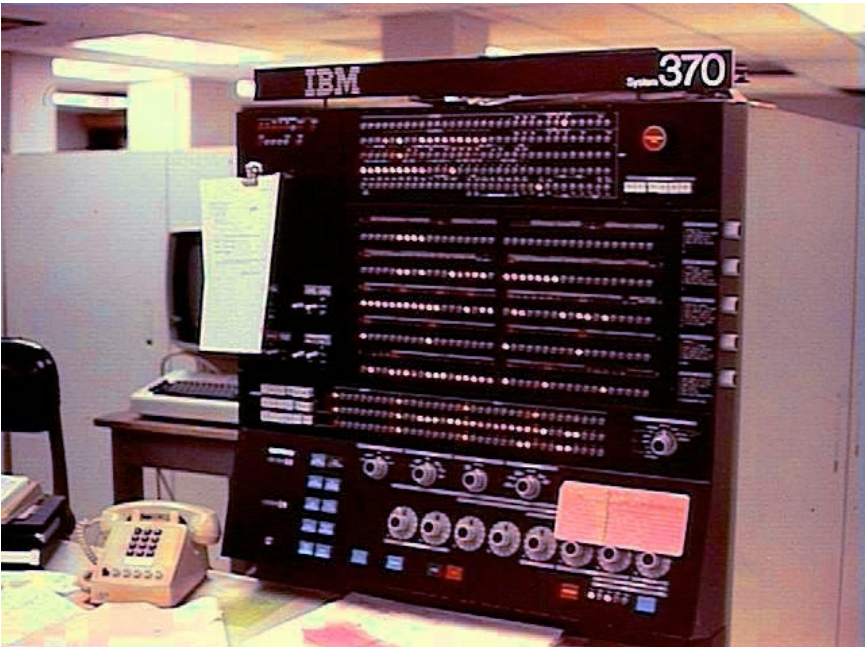
At the Naval Postgraduate School (NPS) – which you might have spotted out your window if you took Highway 1 into town – Kildall gained a reputation as something of a lovable hardass. And, after declining to re-enlist when his draft term was finished in '72, he ended up securing a tenured position there as a civilian instructor (with a short gap where he swung back to UW for his PhD). He describes this position as "cushy;" It provided one day a week to do consulting work for Silicon Valley companies, and plenty of free time to explore his own computer projects (and his other high-RPM extracurriculars).

Kildall's interest was piqued when he saw a newspaper add for "Microcomputer \$25." When he called, it turned out this was actually advertising Intel's new 4-bit microprocessor, the 4004 – and \$25 was the bulk price if you bought 10,000 units: a single chip with a dev kit was \$1,000. So he hung up the phone.

At this point, management at the major computer companies like IBM and DEC didn't think these new microchips were of any interest: They assumed the market for them would be limited to single-purpose standalone machines like cash



An IBM 7904 Console, via computer-history.info



An IBM 370 Console, via kvm.kpfu.ru

registers, ATMs, and kitchen blenders.²² When compared to their behemoth Mainframes and muscular Minicomputers, who would want to build a general-purpose computer around these rinky-dink, underpowered microchips? They were unsuitable for “serious” computation.

But Kildall was curious about what exactly the 4004 could do, so he got ahold of the documentation and programmed an emulator for it on NPS’s IBM 370 minicomputer. And over time, he was able to build a collection of trigonometry functions for the 4004. Fortunately, his consulting gigs also came with an added bonus: he could barter with engineers, swapping his code to get his hands on otherwise-prohibitively expensive equipment.

The 4004 begat the 8-bit 8008 and 8080. And demand for these microchips from CS researches and hobbyists reached the level where Intel produced some of the first (non-kit) commercial microcomputers, the Intelec series. (Again, these things still don’t look anything like later commercial PCs: they’re heavy metal boxes with rows of switches and indicator lights.)

In 1973, Kildall landed another meeting with Intel, where he offered to write a high-level programming language for the 8008/8080, so their customers wouldn’t have to keep writing in godawful assembly.²³ Kildall calls it PL/M: Programming Language for Microcomputers.

But initially, PL/M wasn’t self-hosted; meaning you would still have to write PL/M programs on a mainframe or minicomputer, and then transfer them to your micro. Quickly, Kildall realized that if he could port the PL/M editor and compiler to an 8080 machine, then all that was needed in order to develop complex, and professional software entirely on the microcomputer was an adequately large storage medium, and an operating system to control it.

For clarity: operating systems (OS) of various sorts had been around for decades. They began when programmers started adding functions to the *Pyramid-of-Cheops*-era computers to, for example, trigger a set of rollers and automatically load the second punch card after the first was finished. In the 60s, IBM broadened the concept by creating a suite of operating systems to work across a line of computers (the System/360 mainframes) with different – but still IBM-standardized – hardware configurations.

²² Kildall comments, “I can say without reservation that instruction set of that \$25 Intel 4004 chip was the worst ever. Its only redeeming value that it was dirt cheap in quantity...”

²³ A “high-level language” means easily human readable, like $x = y + z$. This high-level code is then converted into godawful assembly by a program called a compiler. Concurrent to this, Dennis Allison and Bob Albrecht (of *Dr. Dobb’s Journal* – more on that later) are porting BASIC for the 8080.

But, at this point, most operating systems were still written to operate only a single computer's hardware — and trying to squeeze an existing mainframe or minicomputer OS into one of these microprocessors was a laughable prospect. It would have to be written entirely from scratch.



And as for data storage: the mini- and microcomputers we've been talking about are basically all using punch cards or paper tape (think: a long, linear punch card on a spool) for data storage. Magnetic tape was on the scene, but it was crazy expensive and the hardware was enormous, so there's no way it would fly for the microcomputer market. Same issue for the Hard Disk Drives of the era.²⁴

Some engineers were beginning to adapt audio cassettes for data storage, but Kildall thought that Memorex's new IBM-compatible Floppy Disks (released in 1972) were the way to go. Unable to afford \$1,500 for a new unit (about \$8,000 today), Kildall once again worked his connections to snag a drive which had been used in stress testing until failure — the Memorex engineer tossed him a couple of fresh read and write heads and wished him luck on getting it up and running.

But try as he may, he just couldn't get the thing to work. It took him a year before he finally gave up and called an NPS PhD in Electrical Engineering, John Torode. But this yearlong delay was critical: while the floppy drive was collecting dust on his desk, he went back to using the emulator on the minicomputer, and programmed how the OS would read, write, and organize the files on the disk (what we call the "file system architecture"). He programmed the entire thing in assembly and his own programming language, PL/M. He did the debugging and worked out all the kinks virtually.

So when Torode built a specialized microcontroller for the disk drive, they loaded up the software using the old paper tape method, and it just... worked. He named his new OS CP/M: Control Program for Microcomputers.



Perhaps of interest to my fellow Aquarian Age enthusiasts: the first thing he ended up building with this new system, with the help and funding of Ben Cooper, was an astrology machine, destined for arcades and tourist districts like Cannery Row and Fisherman's Wharf. Enter some details about your birthdate, time, and location — and the machine prints out a card with your future foretold by the eternal dance of the celestial spheres. Neither Kildall nor Cooper were particularly interested in astrology — but Kildall jumped at the chance to write a program for calculating star positions, something which comes up in maritime navigation.

²⁴ Seriously, [look at these majestic beasts](#).

Even though it was 1974 and the rainbow vibrations of the Summer of Love were still shimmering in the atmosphere, the machine was — due to issues with its cheap printer, and the complexity of its interface at a time when the average person had little experience with computers — a total flop. Or rather, given the popularity of horoscopes on the major Web Portals during the Dot-Com Bubble and the late-2010s resurgence of interest in astrology among young adults on social media — was just a case of the right idea at the wrong time.²⁵

But this machine provided the perfect test bed to refine CP/M. During its creation, Kildall reworked the compiler and debugger, and added a suite of other utilities.²⁶ This “failed” astrology machine provided the crucial proof-of-concept that, with the right engine under the hood, these rinky-dink microprocessors could be used for an entire mystical universe of complex applications.



Word got around that Kildall had CP/M up and running, and a handful of new microcomputer builders asked about licensing it for the build-it-yourself kits and commercial units they were designing. Kildall first agreed to adapt CP/M for Omron, which (of course) necessitated re-writing a bunch of the code for the specifics of the Omron machine’s hardware.

But here, he had a key realization: This re-writing would go a lot quicker if you split the operating system into two layers. The user would interact with the top layer (which would always stay the same) — Then, the top layer would pass instructions to the bottom layer (which would translate them for whatever hardware the microcomputer happened to have).

Together with the help of a grad student, Glenn Ewing, he rewrote CP/M in “about an afternoon” to include this bottom layer, which they called the BIOS: Basic Input Output System. By allowing the user to make configuration changes to the BIOS, CP/M could now be installed on nearly any commercial or hacked-together hobbyist microcomputer system running on an 8-bit Intel chip.

You might not have used (or even heard of) CP/M. You might not have known the name Gary Kildall. But — if you used a computer or a smartphone today — you have used an operating system which employs an evolution of this BIOS idea.

²⁵ “[The New Age of Astrology](#)” by Julie Beck for The Atlantic, 2018

²⁶ “Ben worked continuously without break. One sleepy evening he used the CP/M command “del *.*” to get a listing of all his files, which would normally be done with “dir *.*” ¶ Unnecessary to say, but that “del” command didn’t do exactly what he wanted. It deleted all his files, including programs that he’d worked on for days with no back-ups. This is why, today, you have the choice to “era” files, rather than “del” them. And, this is why you get a prompt “Are You Sure (Y/N)” You can thank Ben for that. Ben, a bit discouraged, crashed at my house for the remainder of the evening and drove back home the next day for a short holiday from the topic of astrology.”

This mostly-invisible layer is the reason why Android can run on a million different devices, and why iOS “feels” the same, even while the hardware inside different iPhones is often sourced from different suppliers.

The steady and watchful Berber who travels with the caravan from the seaside cliffs of Algiers to the tiled bazaars of Marrakech, negotiating trade and safe passage in each local dialect and hidden custom along the way.



Kildall started a company, and called it Intergalactic Digital Research Inc (because it was 1975 and why not?). Dorothy handled sales, but used her maiden name so it wouldn’t seem like a mom-n-pop shop. They advertised CP/M (with the PL/M editor and compiler included) in the fourth issue of one of the seminal hobbyist magazines, *Dr. Dobb’s Journal of Computer Calisthenics and Orthodontia* (again: why not?), which was proudly produced xerographically and mailed to subscribers.²⁷

Some of the marketing meetings Kildall had attended during his consulting gigs had left a bad taste in his mouth. He had seen a marketer at Intel intentionally delay the release of new equipment in order ensure that customers would buy the older model, and then be forced to upgrade next year. Why screw your customers like that? He set CP/M’s price at \$25 (around \$125 today... the price of a Squire Bullet Strat in limited edition Seafoam Green) — after all, in order to use it, you would have already splurged on a crazy expensive floppy drive.

CP/M became the de-facto micromputer OS overnight. Well OK: it’s the *only* one for a year or two — but the demand among microcomputer users was immediately (and lucratively) obvious. More specifically: the majority of people using micros at this stage were rolling their own software, in order to tackle some specific problem or pursue a particular technical curiosity. And the laboriousness of schlepping paper tape from a mainframe (and then patiently waiting while it loaded at ten characters per second),²⁸ or wiping EPROMS under UV light, or programming in obtuse assembly code... all caused endless delays in their ability to debug and iterate upon their programs.

With CP/M — and a BIOS attentively configured just-so for whatever random junk you’ve cabled into your machine — you could build the whole thing right there in your kitchen, using an easy-to-read high-level language.



²⁷ The first article about CP/M appears in *Vol. 1 No. 4*. *Dr. Dobb’s Journal* has a lot of overlap with the People’s Computer Company... which, my friend, is another story for another day. Also just FYI I’m fudging the timeline a little here for expediency.

²⁸ Compare to the floppy, which “holds 250,000 characters and moves data at 10,000 characters per second. That’s about the same as 2000 feet of paper tape, operating 1,000 times faster.”



The DRI staff at the corner of Lighthouse & Willow in 1980 (Gary is second from the right). Photo by John Pierce

We're moving in fast-forward now:

Over the next half-decade, Digital Research drops the “Intergalactic” and moves across the street into the lovely Victorian on the corner of Lighthouse and Willow. Kildall hires a bunch of like-minded academic free spirits: They come to work barefoot and in tie-dye; there’s beer and pizza every friday; they fall in love, get married, have kids. Kildall buys a Corvette, a few speedboats, a couple of Harleys, and works his way skyward in increasingly majestic aircraft.

In 1983, he tries out a wild gig: co-hosting a new biweekly PBS program called *The Computer Chronicles*, a seat he held for seven years alongside host Stewart Cheifet. This show ran from '83 to 2002 and was syndicated nationally; it tracked the goings-on of the computer industry from the buttoned-up industry reps of the 80s, through the PC explosion in the 90s, to the anarchic hackers of the World Wide Web – and ended, sadly, in the ashen whisper of the Dot-Com collapse.²⁹

Kildall's relaxed, affable personality, and ability to translate technical ideas and business speak into laypersons' terms was ideal for this show's less-general-audience-accessible 80s phase. But, that these shows taped on Saturday mornings presented something of a foreshadowing issue – Kildall was often still feeling DRI's celebratory Friday nights on his 7AM drives up Highway 1 to San Mateo.

But by the time Kildall was beaming into living rooms across the nation, his story was already starting to drift into the soft-focus magenta of allegory.



It's telling that, in the *Computer Chronicles* episode memorializing Kildall after his unexpected passing, the interviewees spend a lot of time trying to set the record straight.³⁰

They're addressing a turn of phrase which – though, by the time I worked at a mobile app company in the early 2010s, had completely disappeared from common usage – has left an indelible, still-seething scar on the collective unconscious of the tech industry: When IBM came to call, Kildall went flying.

It was the dawn of the 80s, and IBM had finally started to look at the ramshackle-but-explosive microcomputer scene (Commodore, Tandy, Apple, Atari, etc etc), and decided it was time to enter the market. At this point, new microprocessors were leapfrogging each other in power, and data storage was becoming smaller (physically), larger (capaciously), and more reliable. And – most importantly – all of these components were getting cheaper. And with IBM's ongoing dominance in the mainframe market and existing relationships with business customers, they had enormous leverage in negotiating with hardware and software suppliers.³¹

And of course, they would need an operating system.

²⁹ Most episodes are now [up on the Internet Archive](#). Perhaps of interest to 2018 readers: The [Nov. 5 1985 episode](#) focuses on the use of – and privacy issues surrounding – data collection to inform political advertising and target particular demographics. In this episode, Chiefet and Kildall raise questions and voice concerns which are nearly identically to the problems we're encountering today.

³⁰ “[Gary Kildall Special](#)” *The Computer Chronicles*, 1995

³¹ Another now-dated turn of phrase from this era is “Nobody ever got fired for buying IBM.”

IBM called up Bill Gates at Microsoft – at this point, just a small software company flying by the seat of its pants – who suggested they call Kildall at DRI. Though most of the lower-end commercial micros like the TRS-80 now had their own proprietary proprietary OSes, the microcomputers designed for business still preferred CP/M for its stability, extensibility, and the impressive collection of professional software available for it. IBM and DRI scheduled a meeting.³²

On the day of the meeting, Kildall was indeed flying – but he was flying back from Oakland, where he had been delivering CP/M documentation to a company building a new system. Kildall often flew up to meetings in the bay: it was quick, you can skip the traffic, and – honestly – who among us wouldn't prefer to bank over the city as the ocean sparkles below the iron glint of the old Bay Bridge?

By the time he arrived at the IBM meeting, things had already gone sideways. Before IBM would even discuss why they were here, their lawyer demanded that DRI sign a “unidirectional” NDA so severe that it stipulated DRI couldn't even disclose that the meeting had taken place; while at the same time, IBM could freely publicize anything that DRI showed them. Uncomfortable with this arrangement, Dorothy and Gerry Davis from DRI refused to sign the NDA until Gary had a chance to look it over. But when the meeting began in earnest, the real nail in the coffin was that IBM also “wanted to buy CP/M outright for a flat fee, and rename it PC DOS.”

So IBM once again called up Bill Gates – and Microsoft agreed to provide an operating system. There was one small problem, though: they didn't have an OS which would work with the IBM PC's new 16-bit processor. So, they contacted a small company who had one. It was called QDOS, which stood for “Quick And Dirty Operating System,” and it was (as advertised) a bare-bones “CP/M clone,” specifically designed to facilitate porting CP/M-compatible software to 16-bit microprocessors – but, it also reworked the OS' filing system to use Microsoft's FAT architecture instead. Microsoft bought QDOS outright, modified it for the IBM PC, and delivered it.³³



³² In “They Made America,” Harold Evans notes that “In 1981 Kildall's CP/M ran on 90% of the roughly 500,000 or so Intel chip-based personal computers in existence. (Apple and Commodore were the exceptions, using their own proprietary system). Where else could IBM go?”

³³ ...And the second edition of “They Made America,” pointedly includes a list of carefully-cited quotes describing QDOS as a CP/M clone, copy, or knockoff, which appears to stem from a defamation lawsuit issued by QDOS' creator Tim Paterson following the first edition. Patterson's statement is printed in full at the close of the chapter (I assume as part of the lawsuit settlement conditions). This book details the many similarities between the two, as does [this 2014 source code comparison](#) by Zeidman (in a much more technical way).

Having gotten wind of all this, DRI threatened to sue IBM over the CP/M clone. In order to avoid the suit, the deal they reached was this: When the IBM PC launched in August of 1981, they would give the customers the option to have it loaded with Microsoft's PC DOS or Digital Research's CP/M, and "let the market decide."

But DRI didn't learn until the public rollout that IBM was offering PC DOS for \$40 and CP/M for \$240. And the market decided.

DRI spent the early 80s trying to catch up. It never did. Along the way, they worked on several projects using leading-edge ideas like multitasking and GUIs... but often they were just slightly too early, or relied on technologies which weren't widely adopted enough. At the same time, the microcomputer industry was inexorably tumbling towards consolidation as "The Beast of Redmond" began to gobble up smaller companies, and affordable IBM / IBM-compatible PCs running MS DOS began to *poof* into homes and offices across America.

DRI was acquired in 1991, but by this time, Kildall was already on to other projects. Most notably the company Actventure (later renamed KnowledgeSet), which pioneered the use of optical media for data storage. Kildall helped write the file system spec for the CD-ROM, and in 1985 KnowledgeSet produced the first CD-ROM encyclopedia: Grollier's — a much later version of which was the first one I ever used, when my family got a drive for our Mac LC II.

But, for as foundational as this was to the future of digital multimedia, there is little writing about this phase of Kildall's work, either online or in print — again, for reasons of narrative. The central conflict, the dramatic arc is over, and we are now in the strange, misty territory occupied by *Big Star: Nothing Can Hurt Me* and *A Band Called Death* — the Muse spinning poems about what might have been, in careful, delicate cursive. Kildall moves to Arizona. And he writes the pages which his children leave out of the PDF. Toward the end of his life, he was working on what we now call the Internet of Things — as usual, the right idea but two decades too early.

Gary Kildall is buried in the Evergreen-Washelli Memorial Park in King County, Washington, where he was born. Evans' chapter ends with the sentence, "Etched on Kildall's tombstone is a simple image: a floppy disk." Which is a beautiful and narratively satisfying way to end a chapter.

But the etching of the floppy disk is actually quite small — so small you might miss it. It is, rather, the etching of a rope-bound anchor which falls softly to rest at the left side of his — and his father's, and his father's father's — tombstone that first catches the eye.



I want to go back for a minute.

Back to the Computer Chronicles memorial episode from 1995, when the former DRI employees are trying to set the record straight. The narrative they — and all of the authors whom I've read on this topic — seem most concerned with correcting is that Kildall was somehow flippant or derelict when he “went flying.” That it was some inbuilt hubris in his nature which drove a stake into history; bending The Fates to see Microsoft crowned in the laurels and showered with gold.

The poets who've recited this epic before me often include filigree and addendum; spin endless extra verses about negotiations and handshake deals in the buildup to the climatic strophe when IBM's betrayal is at last revealed.

But there is one roulade that none of them sing: Maybe there's something up there in the sky that outweighs all the money and power in the world?

And maybe when you land, you come back with something there's no other way to get. I've never flown a plane. Never pulled back on the stick and felt the machine sailing up into the heavens. I can't translate it into words, into melodic prosody, into graphical abstraction in any way other than fiction. I don't know how it feels.

Under the mossy shade of the tree on the corner of Lighthouse and Willow, I reach into my pocket for the coin..... empty.

It's not in my jacket. Not in my backpack. I forgot it. Left it at home.

I fucked up the coin drop.

The coin was so heavy it pulled us a hundred miles into the valley,
over highways threaded through trees in the sun —

but it was so light that it just felt like nothing,
I didn't even notice it when it was gone...

a deep breath
a semicolon

...but today the sky is clear and beautiful. And it's quiet. And Northeast of us, just
a short walk away, there's a green spot on the map labeled "Lovers Point."

It's hard to get too upset.

We haven't taken a day trip like this in a long time.

Lovers Point was everything you might imagine.

OUR DAY TRIP

NINA NASTASIA
FROM "ON LEAVING"
2006

[VERSE: D, G, D, G]

I prefer
D sus
instead of
G

Let's not go to work this morning
Let's not wait to leave the city
We've got just enough money

let's see how far we can amble
One day can make all the difference

Brings the red dirt into water

~~wash~~ / watch in the

LYRICS ON
the Internet
ARE ALWAYS BAD

[Chorus:

A G D C G]

can you stay with me and tell them you're sick
I'll pack us a meal for our day trip

we'll be ^{safe} save out in the sun

We'll split a bottle on a boat

Two souls alone ^{out} now on a lake

It will be the perfect afternoon

We can loose our clothes and have a swim

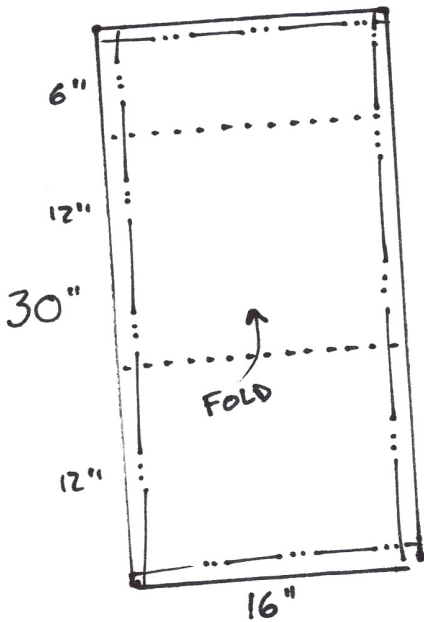
Take a
little time
here

your free hand waving from the gate
The medal shining at your waist
You had so much more ambition

[Ending: A, G, D]

PARCEL

A HANDY ITEM
FOR FREQUENT
BUSINESS TRAVELERS.



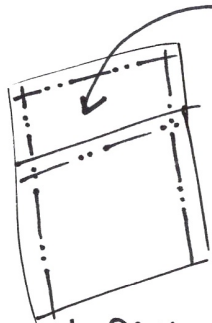
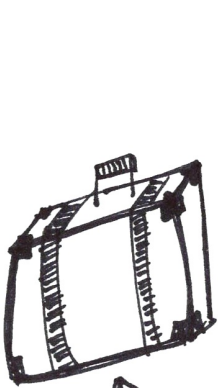
1. SEAM 16" EDGES

2. Fold Long edge for Seam
($\frac{1}{2}$ " pin)

3. Fold
Cloth to make pocket

4. SEAM (now-Folded)
30" EDGES.

NOTE: ADJUST SIZES
AS NEEDED.



Clothing For
ONE DAY

PACK INTO
A PARCEL

PACK PARCELS
INTO SUITCASE

USE A
LIGHTWEIGHT
FABRIC,
OBUS!

Epilogue



Amy sends me postcards from the road.
Who knows where that coin might end up eventually?

Miscellanea

The logo on the back of this document is based on one of several unused pencil-drawn drafts of what would eventually become the Library's present logo. The text below this references the Landscape Coin (which itself was lifted from the coinage of Samuel Higley, M.D., in pre-revolution America). This project marked the beginning of Rick and Megan's lifetime collaboration. [The Landscape Coin project](#) went into soft hibernation while the Library steadily grew towards the sun.

The inside cover quotes are from Emily Wilson's new translation of *The Odyssey*, which was published during the course of this project. The style is markedly interpretive; rich with new language and ideas. They come from the opening of its 91-page Introduction and Translator's Note, which (even if you have no interest in reading *The Odyssey* again) are worth reading on their own.

I couldn't figure out anywhere to put this, but Kildall's PhD involved new theoretical work on compilers (the specifics are over my head). It was well-regarded in the academic community, and his theories were later implemented both by his own and other companies for commercial products.

I used Sublime Text to write the HTML, CSS, and JS files for the website, as well as draft the text of this document, and I did the layout in Pages (which I don't particularly like using, but it gets the job done). This document uses the same font as *Harper's* (Goudy Old Style), and its page numbering system was taken from Don DeLillo's *The Body Artist* (which Bob lent me a few weeks ago and I need to return).

In its third-and-final edition from 2014, the seminal work on the microcomputer industry, *Fire in the Valley*, changed its subtitle from "The Birth of the Personal Computer" to "The Birth and Death of the Personal Computer," reflecting the ongoing displacement of PCs with mobile and IOT devices (most of which are unable to produce self-hosted software).

I'm simultaneously poking through Gross' *Editors on Editing* ('93 edition) and a collection of Max Perkins' correspondence, *From Editor To Author*. With the former schizophrenically valorizing the later amid constant reminder that the editor's role as it was understood in Perkins' day is now an anachronistic fairy tale; I will hereby apologize for any document-length inconsistencies which might stem from the cognitive dissonance of this orobusian nightmare scenario.

I've put together a Derketa appendix, here: devinsmith.work/derketa

RH: Last words?

Terni: "Thanks a million

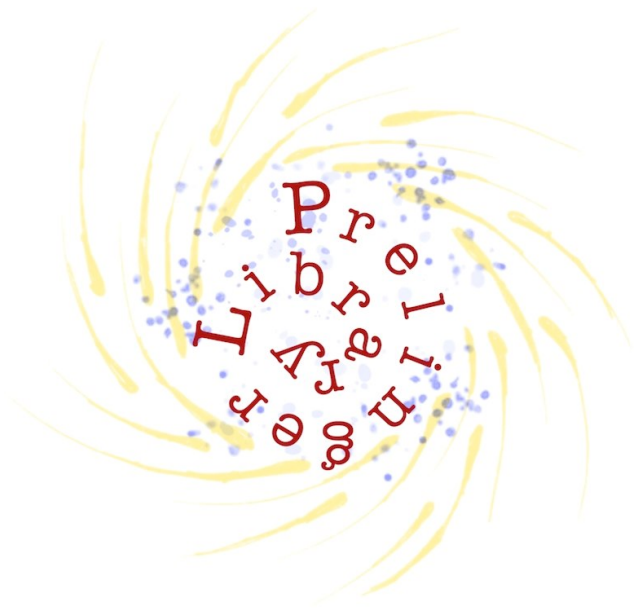
Bruce! Write to us! Buy
the demo if you can and
support death metal
forever!"



But in some ways, the story told in this long piece of verse is small and ordinary. It is a story, as the first word of the original Greek tells us, about “a man” (*andra*). ... The poem tells us how he makes his circuitous way back home across stormy seas after many years at war. We may expect the hero of an “epic” narrative to confront evil forces, perform a superhuman task, and rescue vast numbers of people from an extraordinary kind of threat. Failing that, we might hope at least for a great quest unexpectedly achieved, despite perils all around; an action that saves the world, or at least changes it in some momentous way — like Jason claiming the Golden Fleece, Launcelot glimpsing the Holy Grail, or Aeneas beginning the foundation of Rome. In *The Odyssey*, we find instead the story of a man whose grand adventure is simply to go back to his own home, where he tries to turn everything back to the way it was before he went away. For this hero, mere survival is the most amazing feat of all.

- Emily Wilson





Value me as you please
I am good treeware