# Gardening at Night: *Victory Garden* in Its Times

Presented at the *Playful by Design* Symposium

University of Illinois - November 2, 2022

1.

The original *Victory Garden* – hereafter VG91 – is a long-form hypertext fiction published in 1991 by Eastgate Systems. It comprises almost a thousand page-like narrative units ("lexias," as we've learned to call them), nearly three thousand hypertext links, and a few two-bit graphics. It was written and delivered in Storyspace, a disk-based, pre-Web hypertext system created by my friends, Jay David Bolter and Michael Joyce.
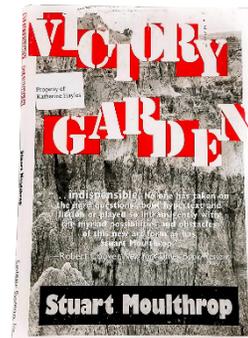
The term "hypertext fiction" now sounds as quaint as "Super VGA," but it meant something in those days – basically, an attempt to move interactive fiction away from overt proceduralism – which was admittedly a bad misreading of the form -- and closer to certain (privileged) kinds of literature. As another hypertext writer, John McDaid, would say: "THIS IS NOT A GAME." I make no claims for this impulse beyond complicity and these days, contrition.

Written between January and August 1991, *Victory Garden* is an odd kind of war story. I might have pitched it as *World News Tonight Meets "The Garden of Forking Paths."* It was occasioned by Desert Storm but more deeply informed by early days of the culture war that is still raging. There are "In-Country" scenes in the Gulf, but its major theatres of operation are cable TV, campus politics, and some bedrooms.

2.
Victory Garden was very briefly famous, then maybe infamous, before it inevitably faded from view. In 1992 the novelist Robert Coover gave the work a front-page notice in the *New York Times Book Review* which inspired one of my exes to ask, "Did your mother write that?" It was quite a good review. Coover really liked one of the bedroom scenes. You can put that on my tombstone.

He also called *Victory Garden* a "benchmark" for digital writing, though a benchmark is something to exceed, and a long line of writers have done that: Judy Malloy, Shelley Jackson, Deena Larsen, Yellowlees Douglas, Richard Holeton, Bill Bly. These are just my classmates from the so-called Eastgate School: a longer list would include other early explorers like our own Judith Pintar, William Gillespie, and his collaborator Scott Rettberg; IF writers including Adam Cadre, Emily Short, and Aaron Reed; multi-platform talents like Nick Montfort, Mark Marino, Darius Kazemi, and Mark Sample; and of course, everyone in the Twine world, long may it spin.

3.
Eventually, however, software spins down. Many of us have bitter memories of the "End of Life" for Adobe Flash, which cut off access to websites, games, and not a few important pieces of electronic literature. For *Victory Garden,* the end came sooner. Storyspace and its younger cousin Tinderbox remain accessible on MacOS today, along with some of the original Eastgate catalog, including Joyce's *afternoon* and Jackson's *Patchwork Girl* -- but resources did not stretch to the mid-list. VG91 became unreadable on contemporary computers somewhere around 2008.

Stuart Moulthrop

Victory Garden 2022

Arlo Ptolemy
Andrew Thompson
Austin Gohl
Holly Slocum
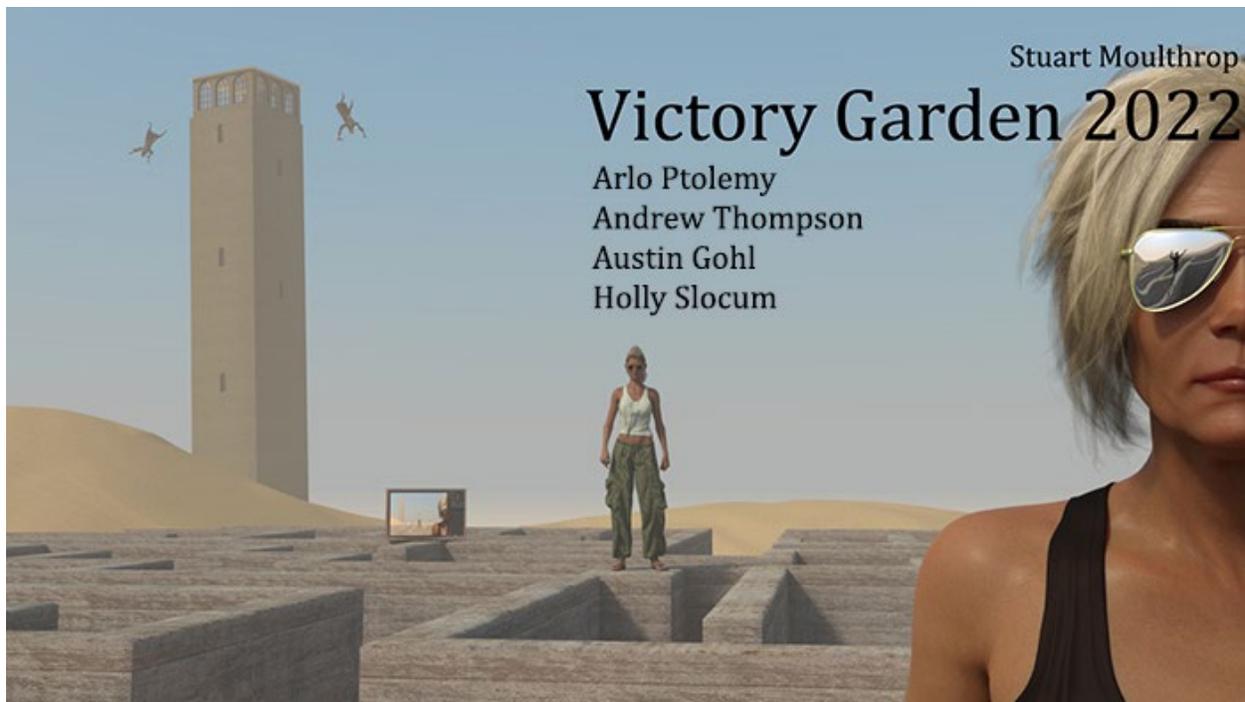
4.
However, with the help of some friends and an amicable arrangement with the original publisher, a new release of *Victory Garden* appeared this summer. Called *Victory Garden 2022* – hereafter VG22 -- the work is based on Web technologies, freely available online under Creative Commons license at www.victory-garden2022.com. It was produced in collaboration with Dene Grigar's Electronic Literature Lab at Washington State University Vancouver, with contributions from four outstanding developers, Arlo Ptolemy, Andrew Thompson, Austin Gohl, and Holly Slocum.

VG22 is very closely based on the original but is a distinct work with significant differences of function and design. I have been asked whether to call it a version, an edition, a reboot, or a remix. It's probably one of those.

5.
The more interesting question might be, why go back to the Garden? I could appeal to the literary-historical record and the fact that Web technologies represent a better chance at long-term survival than any proprietary system. My interest here falls in with preservation work Grigar began many years ago, on which I collaborated at an earlier stage – see our book *Traversals*, 2017. I've also been hugely inspired by what I consider the next stage of hypertext fiction, coming out of the Twine community. Chris Klimas, Leon Arnott, Dan Cox, Anna Anthropy, merritt k, and many others have reanimated and reoriented digital fiction – see Anastasia Salter's book with me, *Twining*, which came out last year.

There's also another, angst-ridden reason for digging up the old garden: because the war whose toxic seeds sprouted there is still going on. I will speak to this before we're done.

6.
First, though, I need to say something about the process that led to VG22. My first idea was a faithful emulation of VG91 using contemporary HTML, CSS, and JavaScript. I ended up pursuing a different concept, and the reasons for that change are worth discussing.

VG91 consisted, to paraphrase David Weinberger, of small pieces dynamically joined: a collection of narrative lines with links running across them. Though it will seem counterintuitive, I didn't think of these prose elements as the FIGURE of *Victory Garden* but more like the GROUND. I had some ideas about characters and the scenes they might occupy but wasn't overly concerned with a grand architecture.   I added hypertext links immediately after the fact, or in some cases during composition, playing on ironies, parallels, and resonances. If I imagined any kind of unity for *Victory Garden*, I thought it must emerge from the play of links.

But links in VG91 were complicated and ultimately bedeviled. For starters, they came in two varieties. In addition to clickable words, which have become the basis of Web practice, there was a second class of "default" links that would activate on click or keypress without a verbal selection. Links of this sort were very important in *afternoon*, which was the technical model for *Victory Garden.* Referring to the key marked "Return" (these days usually "Enter"), Michael suggested reading *afternoon* "on a wave of Returns" – a phrase that always puts me in mind of elections; but we're getting to that.

I wanted the reading experience in *Victory Garden* to be highly variable – which, as you'll see, is a tell. Ideally, I would have had every reading start on a randomly chosen lexia. There's actually a way to do this in VG22, but the 1991 version of Storyspace had no randomization function, so I jury-rigged a substitute. This is the *Labyrinth*, a system of lexias that guides the reader through binary word choices that gradually complete a sentence. There are 51 finished sentences representing exits from this garden of forking words. Completing a sentence puts the reader at the start of a reading path, a sequence of lexias which, theoretically, will come up in succession if the reader simply presses the Return key. Each of these 51 paths comprises a unique tour of the hypertext.

7.
I remain irrationally proud of this scheme, BUT IT NEVER WORKED AS INTENDED. When I tested VG91 in early 2022, I found that almost none of the paths delivered their designated sequence. Most merged unexpectedly into other paths, which themselves rapidly lost integrity.

There was a reason for this. When I designed the Labyrinth, I either failed to remember or did not understand the way Storyspace treats paths. A given lexia can belong to more than one path, giving the lexia multiple possible default links. This would not be a problem if the path selected on exiting the Labyrinth could assume priority over the others. Unfortunately, there was no way to make this happen. If the reader simply presses Return/Enter when multiple paths are present, Storyspace chooses the first link in an internal list. The list is fixed in alphabetical order and cannot be changed during a reading.

I can't say for certain if I knew this at the time. I may have erroneously assumed a selection window would appear in the case of multiple default paths. It won't, but the Storyspace reader interface
does include a feature that when activated shows readers the link stack. When the links belong to paths, the path names are listed. Theoretically readers could continue with the path they are assigned on leaving the Labyrinth, but this presumes they know that path name. I might have identified the assigned path on each exit from the Labyrinth, but I didn't. As a result, paths in VG91 are hopelessly mysterious.

Looking back, I can see this was a gross failure of design. However, it does not seem to have bothered at least some readers of VG91. The narratologist Alice Bell, who devoted a chapter to the work in *Possible Worlds of Hypertext Fiction*, relied largely on the graphical map I added late in the design process, arriving with considerable effort at a very clear understanding of the work. More casual readers seem to have seen VG91 in much the same way Joan Didion described late-sixties life in her "White Album" essay:

> I was supposed to have a script, and had mislaid it. I was supposed to hear cues, and no longer did. I was meant to know the plot, but all I knew was what I saw: flash pictures in variable sequence, images with no 'meaning' beyond their temporary arrangement, not a movie but a cutting-room experience.

Or in other words, chaos.

I should at this point confess that the project I was working on before *Victory Garden* was an abortive HyperCard fiction whose working title was indeed *Chaos*. It seemed like a good idea at the time. It was the late 1980s. People were into all kinds of weird mathematical ideas. I'd been reading James Gleick's *Chaos: Making a New Science*, Prigogine and Stengers' *Order out of Chaos*, and an exquisite unfinished comic called *Big Numbers* by Alan Moore and Dave Sienkiewicz, which might have explored the mysticism of fractals had it not driven the artist to a breakdown.
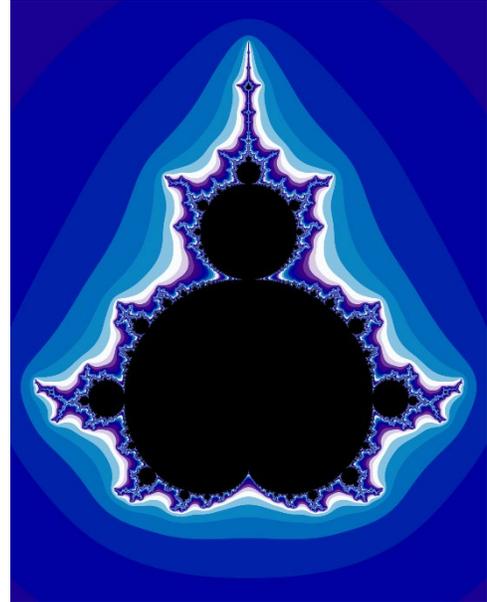
I think Jonathan Coulton matriculated at my old stomping grounds a few years after this, but his song "Mandelbrot Set" evokes those times for me, especially the part about "infinite complexity… defined by simple rules." It was a seductive idea. Chaos back then seemed full of transformative potential, with that nerdy tech-magic that made you invent new operating systems, or virtual environments, or games, and maybe even hypertext fictions. People back then took pains to differentiate chaos from disorder. It was meant to be a constructive revolution. That was the dream. It didn't last.

8.

By 2022, the cultural valence of chaos had notably shifted – I'll come to that – but there was also a personal dimension. I suppose, having learned a bit more about coding than I knew in the 80s, I developed a deeper investment in order. This change may have been predictable. I descended not just from Puritans, but from the first Puritan cop in Connecticut; also from Benedict Arnold and possibly a minor racketeer, but those are other links.

Meanwhile there's more to say about the redesign. For the VG22 project I decided to make Paths and the Labyrinth work as originally intended -- and indeed now they do. At the start every reader is assigned to a default called the "Garden Path," about which I'll say more in a bit. The reader can either follow that path or choose one of several other ways to navigate, including the Labyrinth, where they will find their way to a new path assignment just as in the original. In VG22, however, that assignment is registered and maintained. There are various ways to stray from the path -- by following textlinks, for instance – but pressing the Enter key or selecting an option in the graphical interface *always takes the reader to the next step on the active path*. Progress along the path is tracked and updated in session memory. Paths in VG22 are persistent and patient.

show Miles

¶ East

breadcrumbs

¶ West   show me

show me ¶ Theatrical

wshow meis

show me ¶ Name That G..

alphaville
show me

bored?

toneiric

dream chess

mind alone

¶ Envax Scamdee

¶ Endgame

¶ Gad

o'demslackablys

dream on
show me
say what?

preshow me
show me

¶ Controversial

RWE IOU

¶ Loop

show me ¶ I.D.

show me

saysshat?
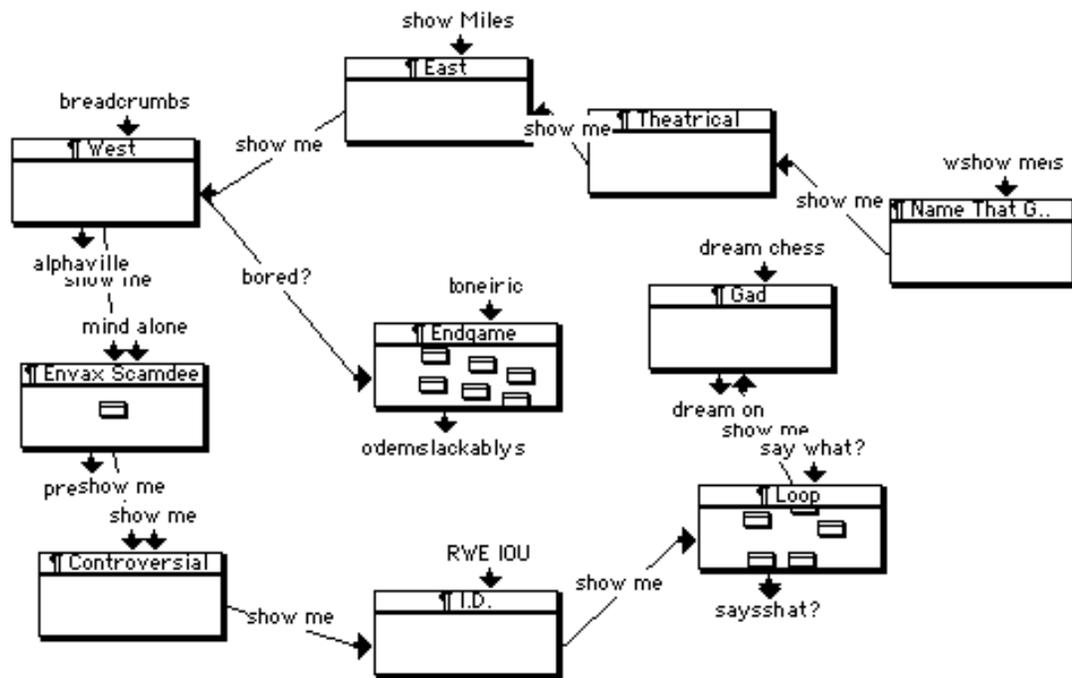
9.

Something important happened as I built out this new system. To compile and check the paths, I had to dive deep into the structure of VG91 using the authoring tools in Storyspace. The image you see here shows how the early-90s version of Storyspace represents lexias and links to authors. I sometimes compare this graph structure to folded chains of genetic material inside a living cell; though at some points the graph also suggests a Russian doll, in that groups of spaces can be tucked away within other spaces. (This is, by the way, a notable feature of Storyspace and a difference from the later hypertext tool Twine.)

As I've said, these chains of lexias were always present, but unlike Paths, they had no names, not even secret ones. The decision not to name them probably reflected that chaos aesthetic. In fact, beyond the terms lexia or "space," which is the Storyspace name for a textual unit, these elements had no categorical description. The concept of paths belonged to links, not lexias. The prose constellations were something else, but I didn't want to think about what that might be. To have named them as episodes or chapters would have been a concession to something I was trying to resist. When I was satisfied with the state of a group of lexias, I would embed them inside one of six general containers named "DONE I," "DONE II," and so forth. In 1991 that was all the structure I wanted.

I saw things differently in 2022. The more I worked through this underlying material, the more aware I became of its local architecture and logic. Inevitably I gave the constellations names, often based on an initial or central lexia: "Latticework," "Thea's War," "In Country,"

and so forth. This may have been backsliding, but it no longer felt wrong. The old figure/ground polarity had flipped, making me increasingly aware of the textual matrix that underlay the hypertext. I decided these underlying structures should be available to the reader. *This was the moment when VG22 stopped being a conversion project and became a separate design.*

READ ME (and How)

Quick Version

To read *Victory Garden* in the simplest way, press the UP arrow key on any page (or swipe up if you don't have keys). Other possibilities are explained below.

Reader Interface

The *reader interface* -- see the diagram at left -- has nine parts, labeled here in red. Here's a quick rundown; read following sections for further context.

At the top (A) is a link to a schematic map, a graphical table of contents. You can use it to find entry points into the fiction, though it is not the only way to do this. The next element (B) will take you to a list of **Streams** (a bit like chapters in a book), many of which are included in the map, along with a whole lot that aren't. Below these elements is a doubly bifurcated figure with five clickable points. Its upper arms hold two links, left and right. The lefthand point (C) moves you backward in whatever Stream you are currently reading. The righthand point (D) moves you forward. You can also use the LEFT and RIGHT arrow keys on your keyboard, if the device you are using has these. The square in the middle of the curved figure (E) will bring you to this page

There have always been multiple ways of moving through *Victory Garden*: textlinks as well as default links, and even a roughly schematic map. All these are present in VG22, but two modes are given special emphasis in Andrew Thompson's elegantly symmetrical visual interface, shown at left in the image above. The curved figure has both horizontal and vertical axes. Left and right represent forward and back along two kinds of sequence – paths and something else. North and south differentiate the controls for paths, at bottom, from corresponding controls for another category, which are found at the top. The formerly nameless ground structures now have both individual names and a category or class. They are STREAMS.

Readers can move in either mode at any point. Following a path delivers all the cutting-room chaos of VG91, like opening an enchanted book that flips pages according to its own mysterious logic. Following a stream gives a more continuous experience, rescuing those flash cuts from the cutting floor and splicing them into extended takes.

10.
Bringing in streams changed the aesthetic of *Victory Garden* dramatically. The ground structure is no longer inert or arbitrary. Each stream has a name and a signature

illustration for good measure. (As you can probably tell, my primary literacy came from comic books.)

When I collected the Streams into a reader-selectable menu, their emergence began to have serious consequences. The order of paths in their corresponding menu wasn't important, but the order of items in the stream menu had implications. Early on, I used a strangely abstract rule, sorting by date of creation, but that was probably the last gasp of my old chaoticism. I threw it out, but then faced a problem. If the cuts could be spliced into takes, could the takes comprise a movie? Was there anything like synchronic story or *réçit* in *Victory Garden*?

I think there is – and amazingly, always was. I have arranged the 43 main streams of the fiction into a generally chronological order based on narrated events. This runs essentially from the outbreak of hostilities in mid-January 1991 to a sequence called "Postwar," set sometime in the following fall, with various excursions into dreams and hallucinations. I didn't write the pieces in this order or have a general plan for their composition, but they do seem to come together, with some interesting exceptions I'll discuss in a bit.

Crossing streams with paths, I've consolidated the data from the successive streams into a structure called the Garden Path, a sequence of about 850 lexias which is now the default reading order for the work. Readers may, and indeed are encouraged to depart from that order. But the Garden Path is at any moment just a click away.

11.
The resulting construction is metaphorically like a movie, but it might be literally something else. Various people, including Professor Bell, have called *Victory Garden* a novel. Until now I have consistently avoided that term, insisting it be called a "fiction."

Does this distinction make a difference? Maybe not, but before I concede the point, let me bring up some arguably non-novelistic aspects of VG22:

There are deliberate narrative inconsistencies. Numerous lexias suggest that Emily Runbird, probably the most important character, dies in the Gulf. Others describe her safe homecoming. If meticulous causality is a hallmark of the novel, *Victory Garden* doesn't measure up -- though modernism and postmodernism have made this standard dubious.

Another objection might be made on formal grounds. There are about 1,100 narrative lexias in VG22; the Garden Path runs about 850. Thus, roughly 20% of the work lies off the delineated Paths. Most of these lexias can be reached via textlinks which readers can follow at will. These off-path elements give the work more variability than is found in most novels -- unless you're thinking of Julio Cortázar's *Hopscotch*, to which I am coming.

Next there are the links themselves, which support and perhaps encourage digressive, polylinear reading. Once that seemed alien to the novel, though perhaps that's no longer the case.

One rather important stream, called "Fugitive," which decides the fates of two major characters, has multiple endpoints dependent on branching choices. The calamitous outcome at the end of this stream can be eluded if you branch away from it. This is only consistent with novel form if you include choose-your-own-adventure stories in that category -- as I concede, many people do these days.

Finally, there are among those 1,100 lexias a few that have no links leading to them at all. These are somewhat mysteriously called "janespaces." While it is possible to imagine novels with inaccessible pages, if you are, say, Borges or Lovecraft or Mark Danielewski, this is not a normal thing in novels.


12.

In the end, though, this probably sounds like special pleading. It seems plausible to say that VG22 is a hypertext with a novel at its core (maybe trying to get out); or that VG22 is *kind of* a novel. But if so, what kind?

The image above, one of many I made for VG22, gives a broad hint. My caption here is "Dr. Agnew Reads Ahead." The scene is anachronistic if you put Thea's move to L.A. somewhere mid-90s: *House of Leaves* appeared in March 2000. I could invoke dream logic, or just fuzzy chronology. Meanwhile, I should apologize for eliding many degrees of separation from

Mark Danielewski, who was once a student in a class I partly taught, and who to my astonishment mentions that fact on his web page, and who did write me once asking whether he should try his hand at hypertext.

The allusion is as earnest as it is shameless. *House of Leaves* is a kind of novel, much in the same way that *The Life and Opinions of Tristram Shandy* and *Pale Fire* and *Hopscotch* are novels. They are the kind of novels that make certain critics shake their heads, and maybe turn certain English majors into subversive novelists. They are the kind of fiction Bob Coover had in mind when he stole a title from Donald Barthelme and named an important literary event *Unspeakable Practices*.

If VG22 belongs anywhere near the once-and-no-doubt-still-great tradition of the novel, it is mainly by way of experiment. *Hypothesis: there's no practice so unspeakable that it disqualifies a long prose fiction from being a novel.* To name the kind of novel VG22 might be, I will emulate Coover and steal a title, or actually a tag, from a fellow writer. In 2007, Michael Joyce published an enigmatic book called *Was: annales nomadiques*, sub-subtitled "a novel of internet." Unlike *afternoon, a story*, *Was* is not a digital text but a conventionally printed book. It presents a very Joycean narrative that dances around the planet, changing locale, point of view, and characters every three to five pages. A few persons recur but this seems almost accidental. No one is central. It ends with a death, but so do lots of things. There are bits in nine or ten languages, including "Human Markup Language," which Michael attributes to geneticists but I think he made up. As the author once told me, the book would have been impossible without the newborn muse "Googlemena," our lady of the queries.
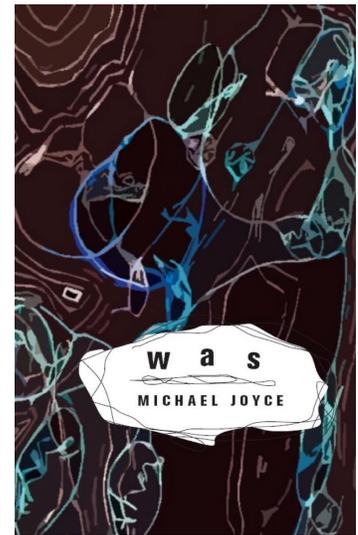
It's my favorite book by either of the famous Joyces, and I would like to position VG22 as its counterpart, companion, or perhaps simply its shadow -- the other novel of internet. For though the new *Victory Garden* resides on the internet, like *Was* it wasn't born there, and maybe in its own way it assumes a certain distance from the wonders of our digital age.

13.
Which brings me, as promised, to the other reason for re-thinking chaos in my return to the Garden. The exigency here is less aesthetic than existential. To explain this, I need to talk about a page that I really, really wanted to lose on the way to VG22 – though I didn't. Here it is:

Paraknowledge

Paranoia... what does it mean beyond a quaint "sixties" conceit... maybe due for its comeback like everything else about that jejune decade... a titillating notion that:

E˘v˘e˘r˘y˘t˘h˘i˘n˘g-I˘'s-C˘o˘n˘n˘e˘c˘t˘e˘d?

A sensitivity to patterns, parallels, correspondences. A higher scrutiny, in every sense of the word. Cause-and-effect yes, but also a hint of something far more deeply interfused.

Symmetry, synchronicity... coincidence, Chaos?

14.

Setting aside the goofy typography and embarrassingly overt pinching from *Gravity's Rainbow*, the main reason I regret this passage has to do with prophecy. Maybe predicting things does not make them happen, but that seems cold comfort. Sometimes a fool can speak the truth. Paranoia indeed had a future, and we are living in it.

Here's the dismal record of the last three decades: technologies like hypertext, distributed networks, smart phones, social media, and surveillance capitalism have been used to operationalize chaos, shredding continuity, precedent, decency, and truth. As I write in the VG22 preface:

> It did come back, that P-word -- in the pullulating forms of birth certificate lies, slurs against immigrants and Muslims, pizza-parlor blood libels, smirking Russians in the Oval Office... the evil clown staring into the heart of the eclipse, super-spreading virus. There he was losing bigtime, then whinging and wheedling about election fraud, throwing his shit at the walls, ultimately conniving in murderous insurrection. Remember Kubrick's fantasy about the madman with nuclear weapons? Turns out it was a prequel.

15.
On reflection, probably not that much improvement over the original.

The project of hypertext fiction, as I need to understand it, is to seek within chaos some more promising organization of reality. No fiction can produce or attain such a thing, of course, but it can perhaps imagine, or at least frantically gesture.

Which brings me to one last meditation on *Victory Garden* and its times, also culled from the second part of the new preface:

Our times have grown twisted, like those cut-through hillsides where the rock strata look like cake swirls. There has been a lot of upheaval. In our worst moments, we may seem caught in a time warp of multiple anomalies, folding 2022 over 1991, 1920 onto 2020, the 1870s of racist "nadir" against whatever glimmerings may have sparked up a century later.
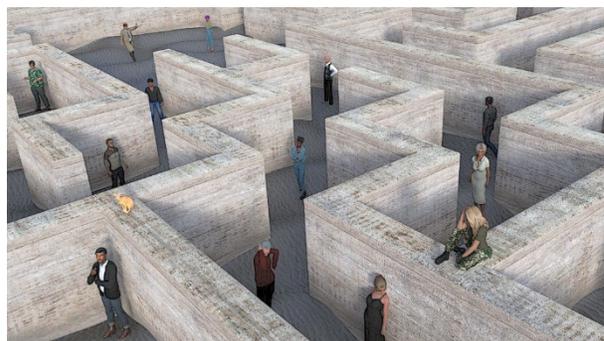

Paradoxically, the twisted architecture of the labyrinth flattens these topologies, at least as Borges understands it. It gathers the timelines into a web but also holds out, if not singular solution, then at least the possibility of possibility. Not all times are the same. In some of these unfoldings, the story may be something more than a tale told by an idiot, or an error

made up by a ghost. It remains possible, if we understand our agency, to resist or at least manage the seductions of the hivemind, to carom away from the P-word and its nightmares of war and apocalypse.

Possible, though by no means assured. We need to work at it; nothing is guaranteed. How should that work proceed? Besides supplying a place for wandering -- which has its undeniable virtues -- of what use is a labyrinth?

If you are the god-novelist Ts'ui Pên (or Borges, or Olaf Stapledon), you can use the labyrinth to deconstruct time. Ts'ui Pên bequeaths to lucky futures his Garden of all futures, a riddle that is its own meta-answer. That's quite a legacy, and it reveals by contrast the general unworthiness of heirs. These twisted times are not the days of giants. When you get through my excuse for a labyrinth, I'm afraid the best I'll manage is montage, "flash pictures in variable sequence"...
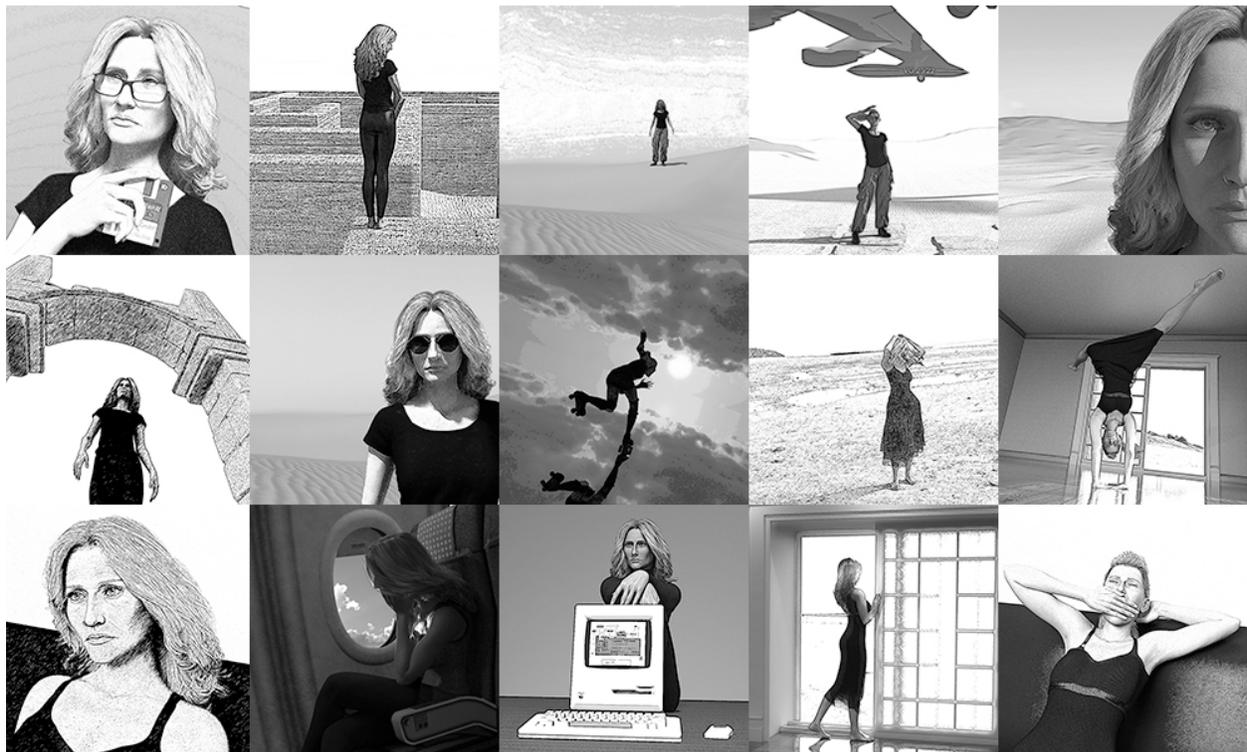
In the end this ensemble of visible, replaceable, impossible futures is my best countermeasure against the P's and Q's [of Paranoia and Q-Anon] ... Maybe everything is connected, but it is not locked into singularity or stasis -- not yet blindingly one. The system can still produce variation and what may pass at least locally for surprise. There is time to remember the future differently.

Or so I suggest we hope.