

Nick LaMonica

Prof. Perry Cox

ENGL 235

April 10, 2024

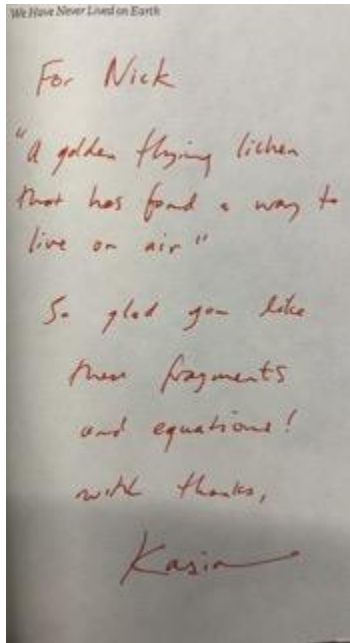
### Flow Spaces

*“Love is another way of wasting time. A theory.” - Kasia Van Schaik*

I will be TOTALLY forthright with you my dear reader, I am writing this because Kasia Van Schaik fed into my delusional interpretation of her short story “Cellular Memory”; it is really just a happy coincidence that this story absolutely embodies the spirit of the prompt. This may be a love letter. With that out of the way. Let it rip.

In a building dedicated to the study of money, Kasia Van Schaik describes her goal of opening the infinitely small spaces within ourselves in a ‘little theater’. She talks about small stories set against big backgrounds. She shares that the fragmented style of *We Have Never Lived On Earth* may have affected its critical reception, which makes me angry. Her words are chaotic and full of life, I can understand her so clearly. I have been tossing and turning with “Cellular Memory” for two weeks now. I have been attacking the short story with algorithm and analysis in an attempt to extract meaning. I fall short time and time again. I partition the paragraphs, group and rearrange them. I feel lost in the story, the same way I think the characters are; it’s a good feeling. I think the fragments can be properly organized to form a proper story for proper analysis. But I hear her speak, and I decide to give up and extricate myself. Her interpretation of her own work meshes more with my worldview than any academia fueled analysis could. Academics describe the little theater (the Set Design, the Casting Decisions...) instead of earnestly watching the play unfold. In my copy of her book she writes a quote: “a golden flying

lichen that has found a way to live on air” (Van Schaik 138). I want to live on air too! Suddenly, I am sucked into a tornado of thought, or maybe it’s a whirlpool. In either case, decoding the story



is not my goal anymore, another dimension has been added. I reread the story, and find myself in a topographic world, where I feel the contours of each word. A week or three later I go to a concert. There, a musician urges the audience not to be afraid of doing two things at once. Now all I want to do is draw a map.

Chaos is pretty fucking awesome. I promise, I really promise, that I will do my best not to subject you to strict academic definitions.

The mathematical community is not in total accord on chaos, which makes me feel more comfortable sharing this one with you:

## Chaos

Bob Devaney def for topologically transitive:

A fn  $f$  is topologically transitive if given any two open sets ("balls" w/o boundaries) called say  $U$  and  $V$ , then

$\exists n \geq 0$  s.t.  $f^n(U) \cap V \neq \emptyset$

Def:

A discrete D.S.  $(x_{n+1} = f(x_n), f: X \rightarrow X)$  is chaotic if:

- 1) It is sensitive to initial conditions  $\longleftrightarrow$  it has a positive Lyapunov exponent associated with it
- 2) The periodic points of  $f$  are dense in  $X$  (skeleton to hang on to)
- 3)  $f$  is topologically transitive. (no where to hide)

\* "Like a river full of rapids"

Lyapunov exponent defined as:

$$\lambda = \lim_{n \rightarrow \infty} \ln \left| \prod_{j=0}^{n-1} f'(x_j) \right| = \lim_{n \rightarrow \infty} \frac{1}{n} \sum_{j=0}^{n-1} \ln |f'(x_j)|$$

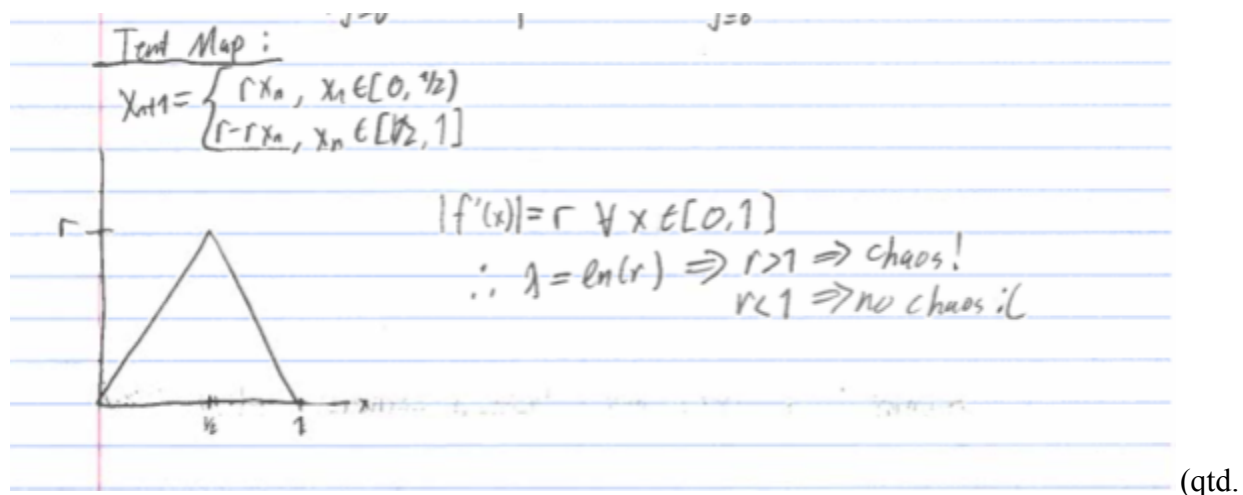
(qtd.

Bramburger)

All you need to understand about this:

- Sensitive to initial conditions  $\Rightarrow$  Starting near each other does not guarantee us ending close together.
- The periodic points of  $f$  are dense in  $X \Rightarrow$  Whatever we are examining is *extremely* rich and contains multitudes (I'm being pretty hand-wavey about this one).
- $f$  is topologically transitive  $\Rightarrow$  There is "nowhere to hide" (qtd. Bramburger). The way I think of this is that no matter how far two groups start away from each other, eventually they will overlap in at least one place. (Pretty hand-wavey on this too).

As a simple illustration I want to show you, dear reader, what the "Tent Map" looks like:



Bramburger)

Pretty simple picture eh? Yet because of the space we look at it from, complex phenomena can be observed. It *can* be proved, in all mathematical rigor, that criteria 2 & 3 are satisfied, but for now just take my word for it! I want you, dear reader, to think of the parameter,  $r$ , as the amount of creativity used in creating a piece of writing! If there is not enough creativity, there is no chaos, only structure! And the more creativity, the less determinism there is, and from that arises chaos! “How frugal you have become regarding joy!” writes Van Schaik (Van Schaik, 135). In chaos we find creativity, and in creativity we find joy.

Imagine life as a horizontal line: similar to in “Cellular Memory” where Van Schaik writes how “each day is a maze that keeps growing horizontally out to one side” (Van Schaik, 132). To us, chaos exists perpendicular to that horizontal line; like  $\mathbb{R}$  and  $\mathbb{C}$ , the intersection between the real number axis and the imaginary number axis. Chaos exists to the left and right of the beaten path. Van Schaik asks: “*Do you see rich scenes unfolding when you turn your head?*” (Van Schaik, 139). The question I want to ask you is: how often do you turn your head? How frugal have *you* become regarding chaos? How frugal regarding joy?

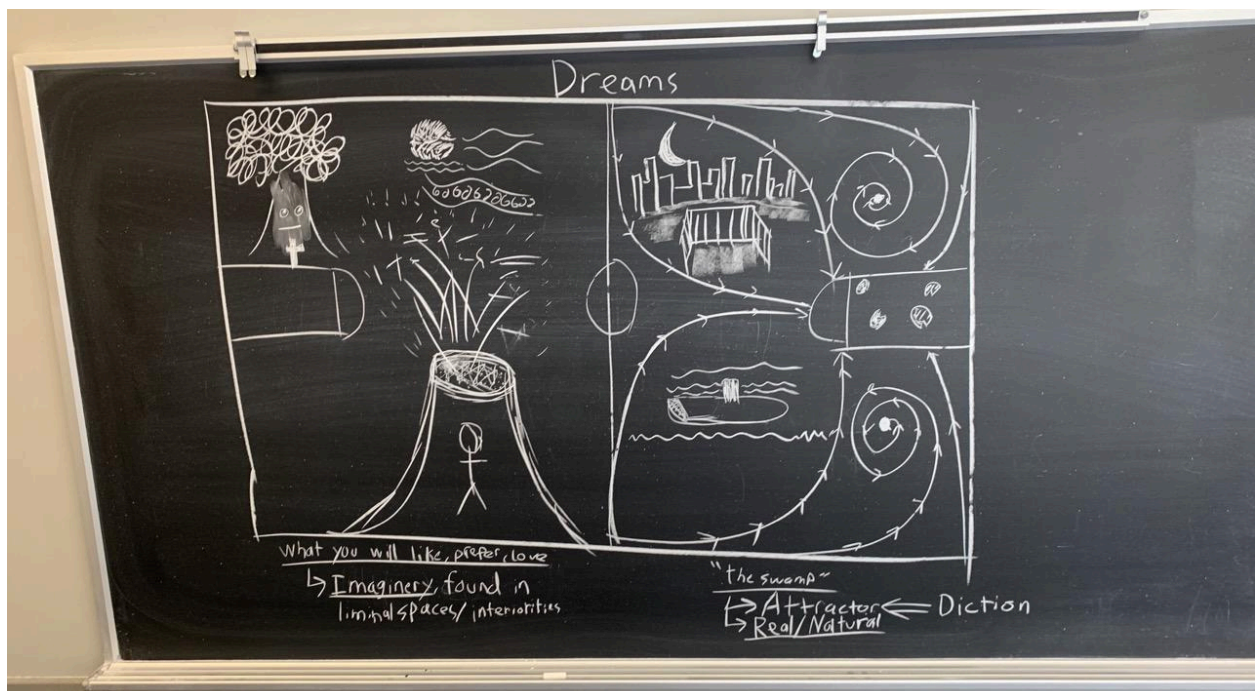
“Sometimes when I’m speaking I feel like I have succumbed to this disorder, sightlessly describing a world that may not exist” (Van Schaik, 136) carries a sentiment that perfectly lines up with that picture of the perpendicular imaginary axis. And I could craft a convoluted extended metaphor to explore that, but I want to go another direction. I feel like those potentially non-existent worlds are better embodied in the idea of the little theaters in infinitely small spaces that Van Schaik describes. You may have a funny feeling, dear reader, that there is more math coming. And you would be right! Let’s think of these infinitesimal spaces as the product of infinite processes! Allow me to demonstrate using the Cantor fractal produced by the Baker’s Map:



Little theaters exist in a similar way. It just meshes so intuitively with the way Van Schaik thinks about her writing. It is so beautiful to me. Puny theaters that exist in a massive background, but still contain within them the potential from even smaller theaters to exist. We could consider the entire book as a line segment. The line breaks down into segments that represent each story, then each story breaks down in a similar way when it is considered as a line, on and on down the rabbit hole. This collection is fractal! You zoom in and zoom out and still see a quasi-self-similar image, no matter how far you zoom. Maybe it's just a product of Van Schaik's intuitive, cohesive writing, but accepting this as the **answer** seems too easy for us. Looking for an answer is too academic. Looking at the beautiful world stretched before you is a much more important pursuit.

Now, I find myself at a place where I fear that any further articulation would diminish our appreciation. I suppose that is my cue to stop writing (and start editing!). I have been swearing profusely in this essay, and think it best to censor myself (just a little, I promise). I wrote this in total flow, trying to embody my favorite quote from "Cellular Memory": "I don't want you to love me. I just want to, like, chat" (Van Schaik, 132).

*I've included one final sketch below. The right is a phase-plane diagram. The left is just doodles of my favorite imagery in "Cellular Memory". It's on a basketball court because one is mentioned in the story, and it is a space I identify with.*



### Works Cited

Bramburger, Jason. November 30, 2023, MATH 474 Lecture at Concordia University

Strogatz, Steven H. "Nonlinear Dynamics and Chaos." *CRC Press eBooks*, 2018,

<https://doi.org/10.1201/9780429492563>.

Van Schaik, Kasia. "We Have Never Lived on Earth." *University of Alberta Press eBooks*, 2022,

<https://doi.org/10.1515/9781772126655>.