



Exploring the Human Imagination

Mapping how we imagine, define, and use one of our most essential mental abilities.

UC San Diego
Arthur C. Clarke Center for Human Imagination



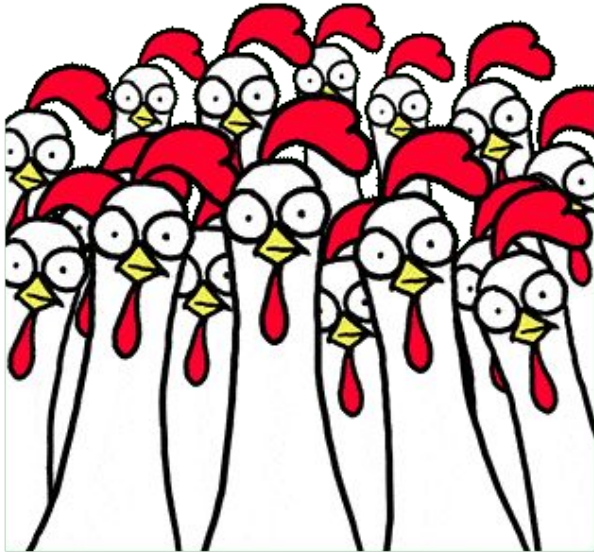
ARTHUR C CLARKE CENTER FOR HUMAN

IMAGINATION

IMAGINING NEW POSSIBLE FUTURES

AT THE NEXUS OF SCIENCE, ART, AND
TECHNOLOGY

UC San Diego



Team

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Stefanie Holden

Chloe Tanega

Julie Eitzen

Robert Twomey

Origami Air – Trisha Williams and Joe Unger

UC San Diego Clarke Center for Human Imagination

We need to make the world safe for creativity and intuition, for it's
creativity and intuition that will make the world safe for us.

~Edgar Mitchell

Perhaps the only limits to the human mind are those we believe in.

~ Willis Harman

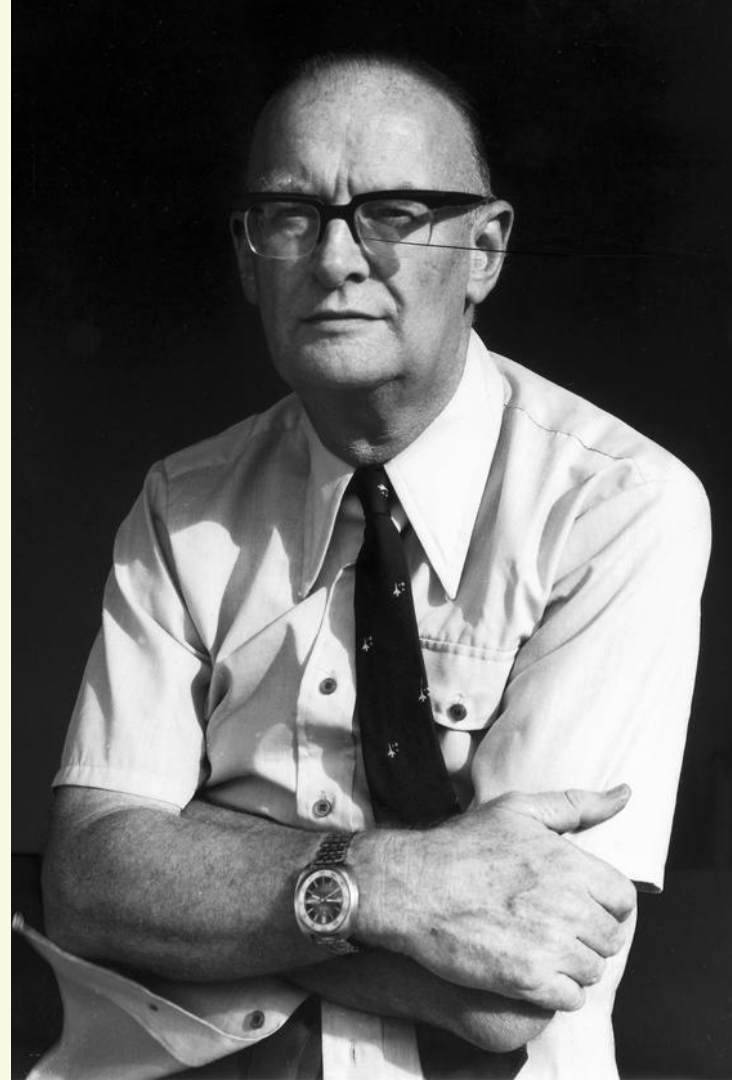
The only way to discover

THE LIMITS OF THE POSSIBLE

is the venture a little way past them

INTO THE IMPOSSIBLE.

— SIR ARTHUR C. CLARKE



Why It Matters

Every innovation, revolution, paradigm shift, and step in social progress was **imagined** before it was enacted.

We are facing major crises across nearly every area of contemporary life:



Science



Environment



Culture



Politics



Technology



Mental Health



Health

Existing strategies for solving problems are not enough.

We need to better leverage the **capacity of imagination**.

And we need to **do it now**.

Our Guiding Principles:

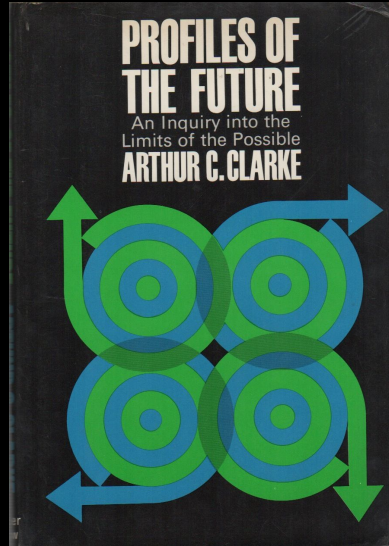
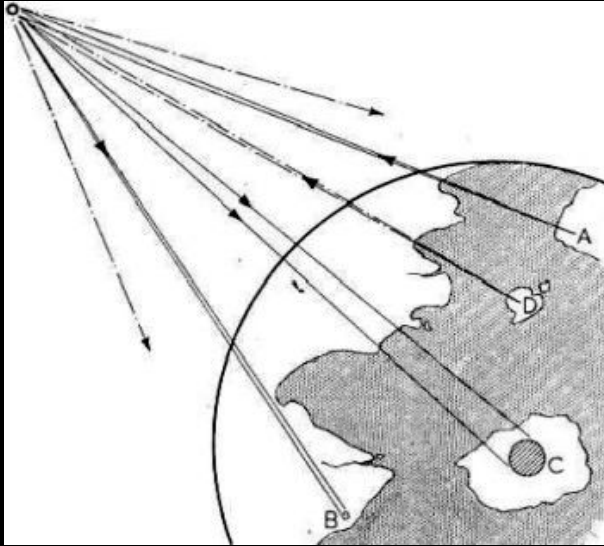
- 1) Imagination is an essential mental faculty that can be cultivated and is the seed of nearly all great innovations and social advances.
- 2) The neurodiversity of imagination should be embraced as a strength
- 3) Human progress and social justice rely on the ability to imagine, envision, and enact diverse, alternate, sustainable futures
- 4) Technological tools for boosting imagination are being discovered, with profound potential therapeutic and learning benefit

The only way of discovering the limits of the possible is to venture a little way past them into the impossible.

~Arthur C. Clarke

OUR INSPIRATION

Who was Arthur C. Clarke?

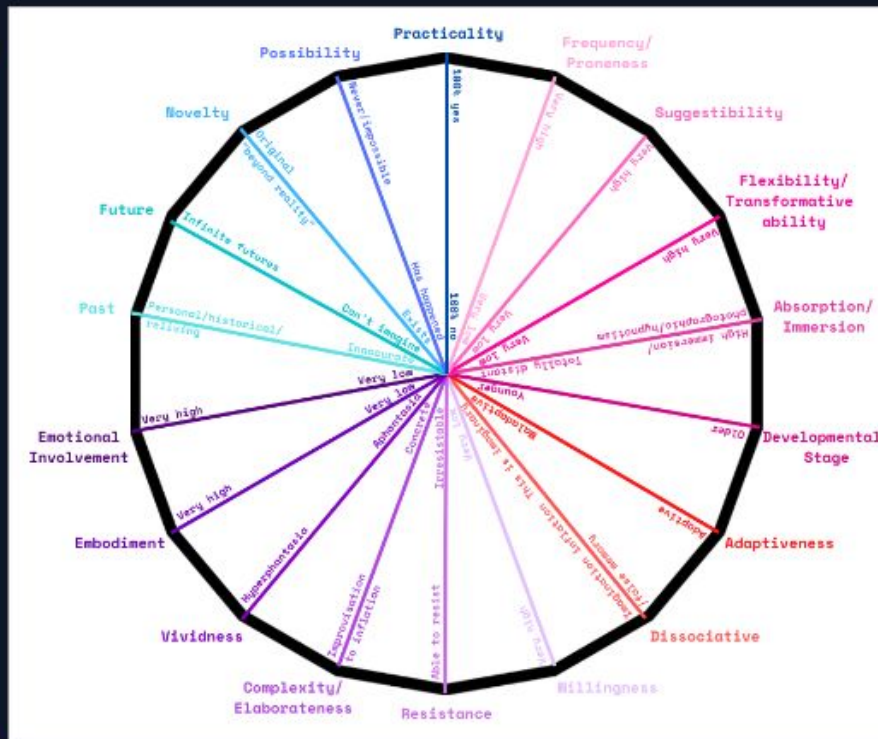
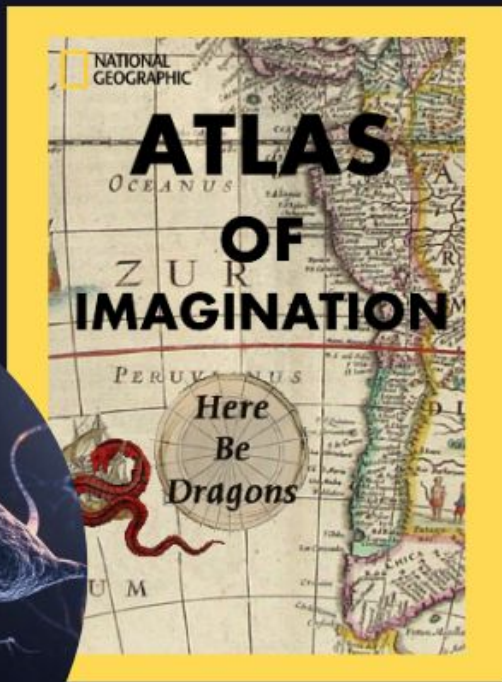


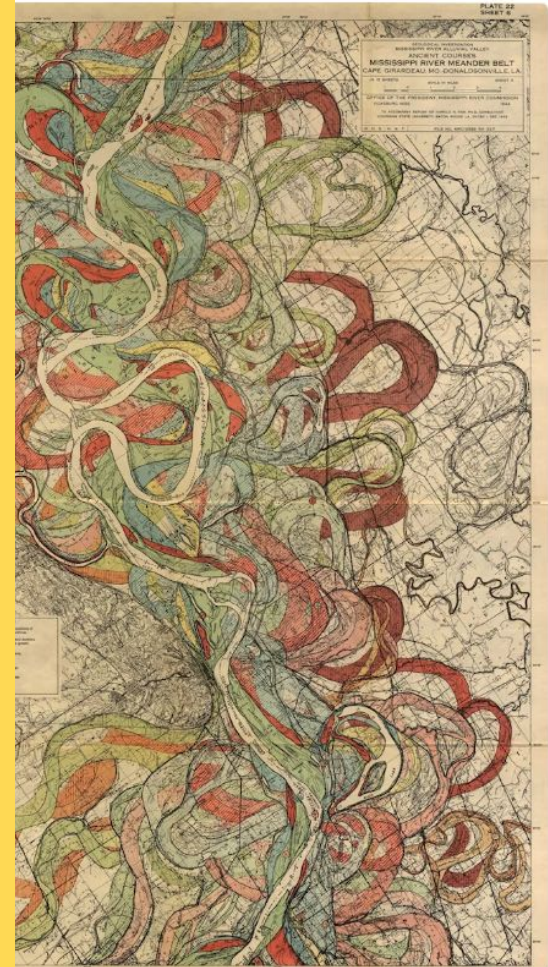
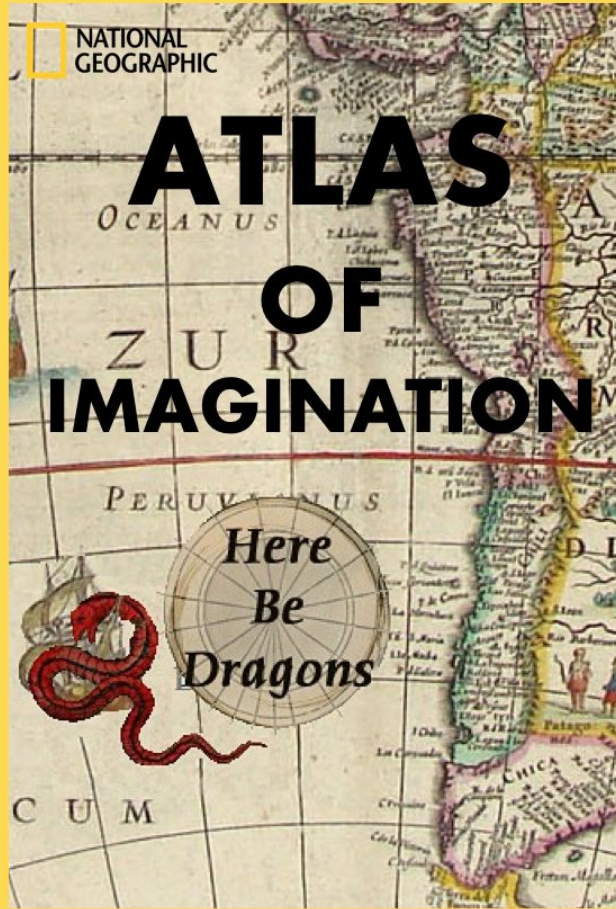
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IMAGINATION

"Any sufficiently advanced technology is indistinguishable from magic"
—Arthur C. Clarke

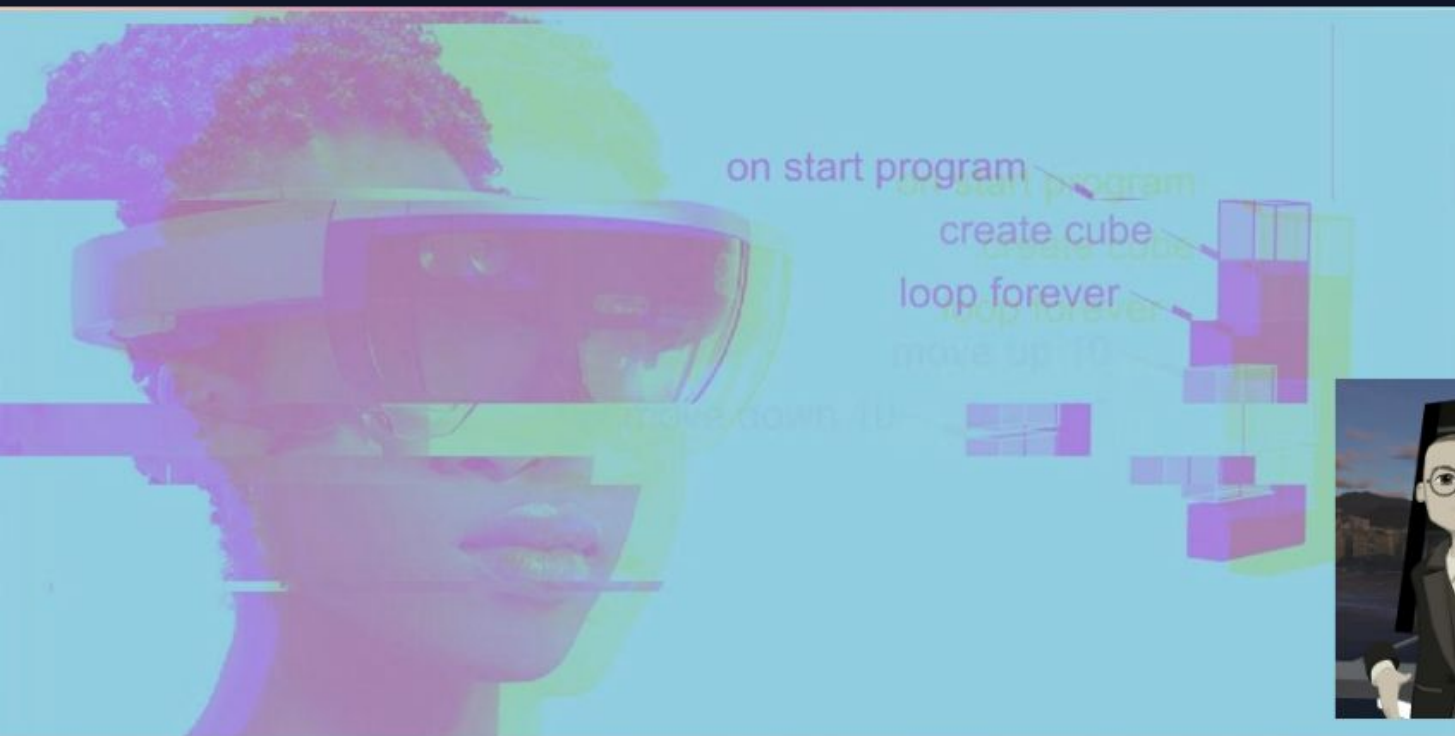
01

Neuroscience and THE ATLAS OF IMAGINATION





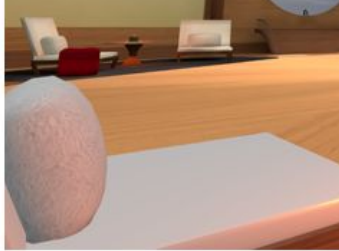
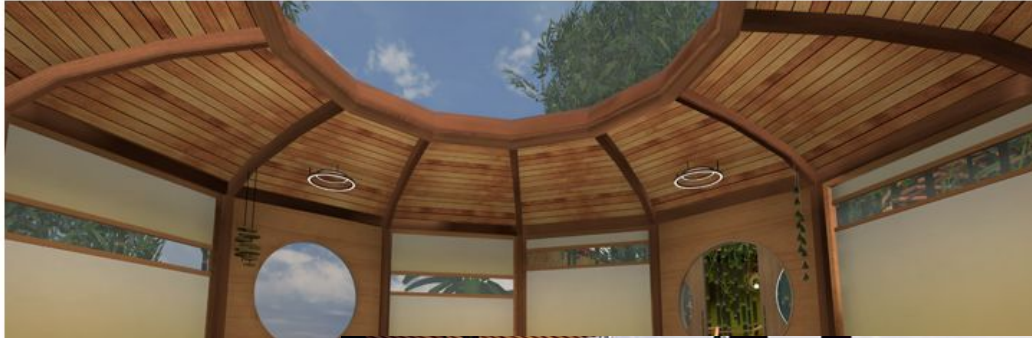
02 *Tools for Imagination and* **THE POSSIBILITY LAB**





Compassion Island

A Virtual World to Support Cultivating Mindfulness and Compassion



The Arthur C. Clarke Center for private metaverse-first ventures and set of virtual-enhanced through virtual reality (VR) and



THE
EDGAR MITCHELL
OVERVIEW EFFECT
VR EXPERIENCE

03 Speculative Futures and FUTURES LITERACY

clarion

SCIENCE FICTION AND FANTASY WRITERS' WORKSHOP



**AFRORITHMS
FROM THE FUTURE**

A PARTICIPATORY WORKSHOP TO
"INTENTIONALLY ANTICIPATE DEMOCRATIC
ANTI-RACIST FUTURES" WITH AHMED
BEST AND LONNY J. AVI BROOKS

OCTOBER 6, 5 - 7 PM
RSVP REQUIRED

AFRORITHMS CENTER FOR HUMAN
IMAGINATION



BLACK STUDIES
PROJECT



04 *Pushing Imagination to Look* **TO THE STARS**



Forthcoming

August 2026

Simon Element

Simon and Schuster

<https://www.amazon.com/Imagine-That-Transform-Science-Imagination-ebook/dp/B0FX5T6D19>



TRANSFORM HOW YOU
THINK, FEEL, *and* LIVE WITH *the*
SCIENCE *of* IMAGINATION

Foreword by Pete Docter, Chief Creative Officer at Pixar



CASSANDRA VIETEN, PHD
Arthur C. Clarke Center for Human Imagination

1. Imagination is more than we imagine it is

2. Imagination is not imaginary

3. Imagination is neurodiverse

4. Can be employed to build your world and your life.



5. Imagination can come *from* us, and can come *through* us

6. Imagination is early in evolution & consciousness, not late

7. Imagination can be practiced, or cultivated



controls

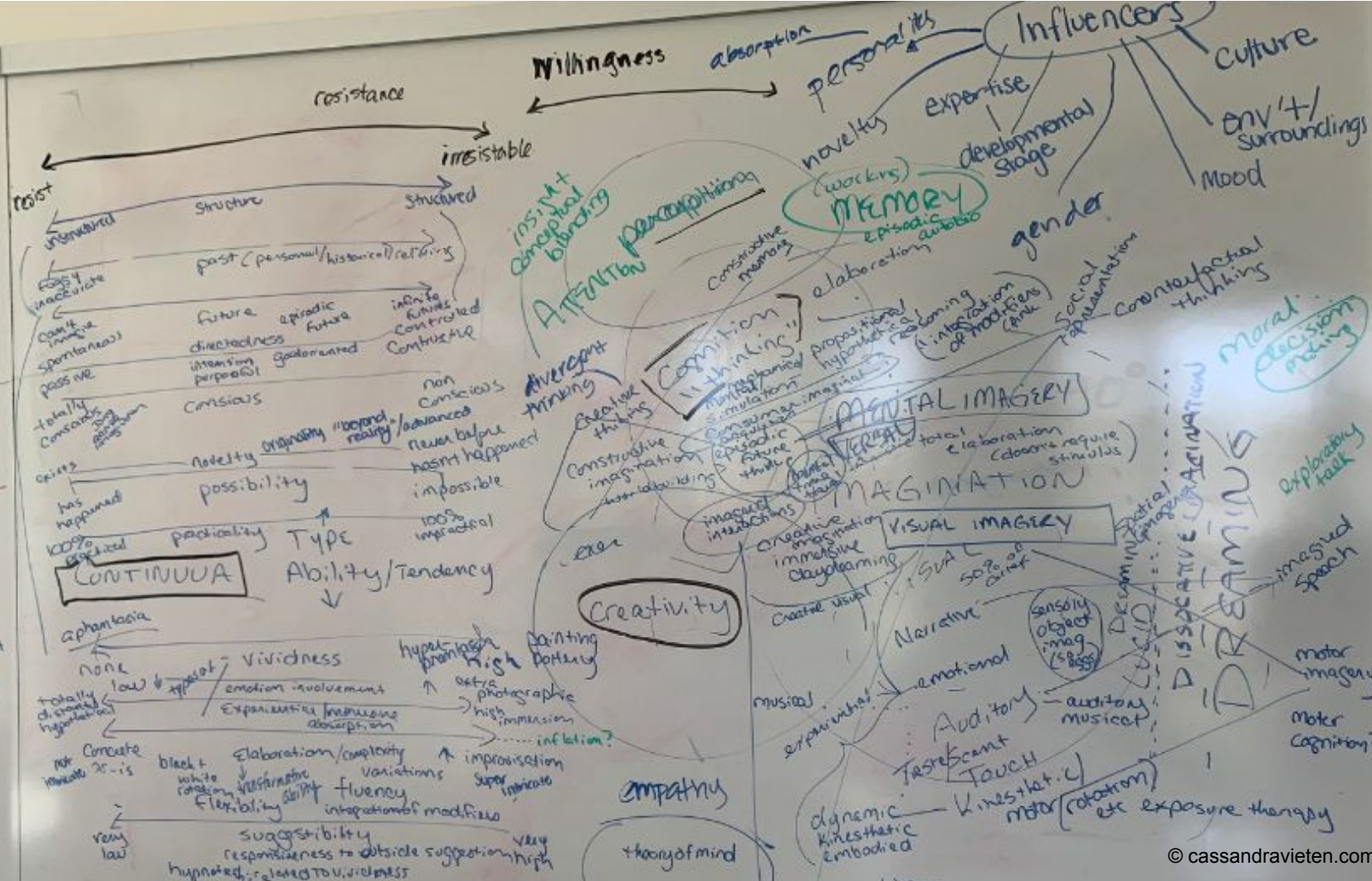
100+

dissociated

400

Yes/No or continuing flowchart

prezi / zoom in
organism - circumplex model



Imagination is the
mind's ability to
transcend reality
and explore
possibilities beyond
the known...



CONCEPTUALIZATION OF *IMAGINATION*

An essential human capacity

A territory

“The plate tectonics of mind and culture” ~ Stephen Asma

A skill

An influence/modifier of perception in everyday life

A drive of our collective future

“Imagination is a collective project. We dream together. We change the world together.” ~ Ed Finn

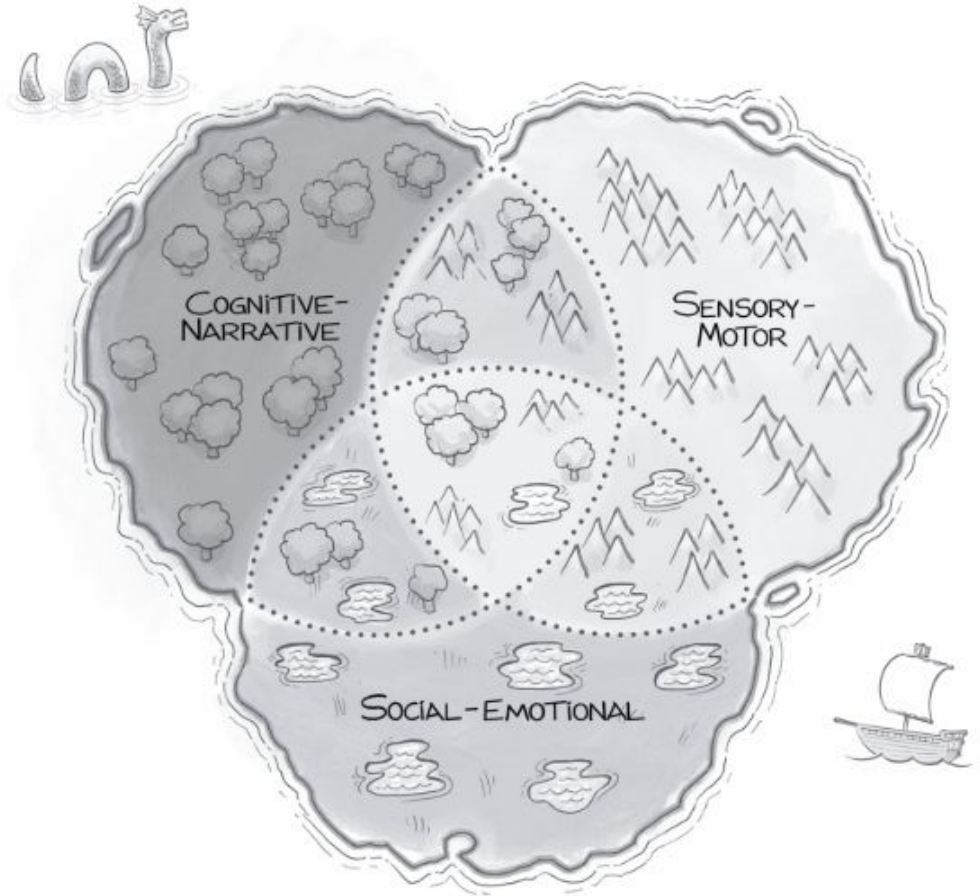
The Atlas of Imagination

Literature Review

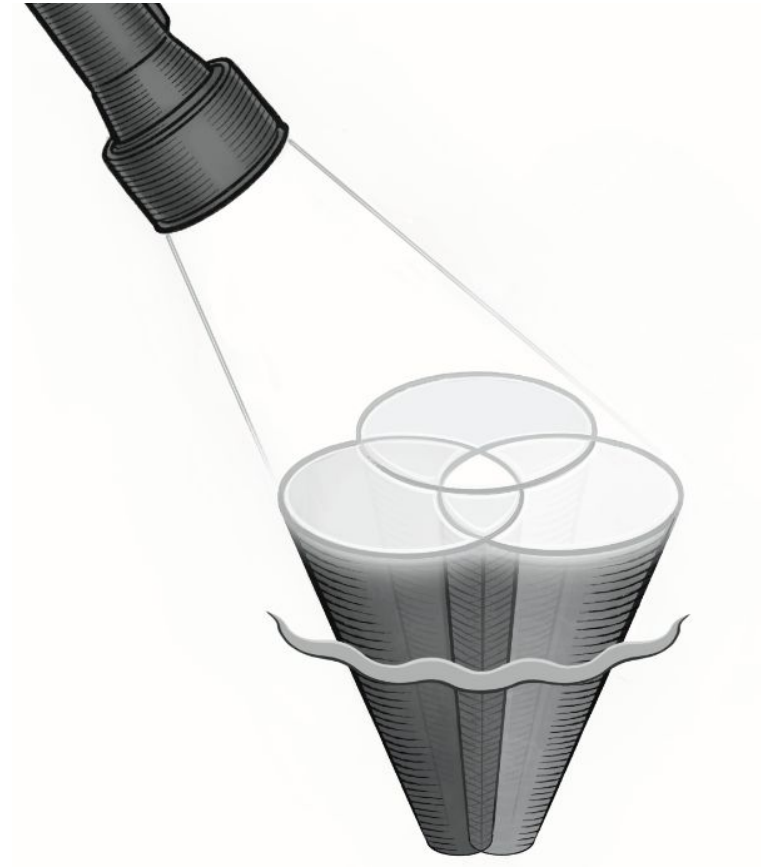
Mapping the
Construct of
Imagination

NARRATIVE IMAGINATION	VISUAL IMAGERY	SOCIAL IMAGINATION	EMBODIED IMAGINATION
PROPOSITIONAL IMAGINATION	MOTOR IMAGERY	EMOTIONAL IMAGINATION	DREAMING
SIMULATION	SPATIAL IMAGERY	THEORY OF MIND	LUCID DREAMING
MENTAL TIME TRAVEL	AUDITORY IMAGINATION	MORAL IMAGINATION	DAY DREAMING
CONSTRUCTIVE IMAGINATION	ENGINEERING IMAGINATION	SCIENTIFIC IMAGINATION	GOAL IMAGERY
CREATIVE IMAGINATION	GEOGRAPHICAL IMAGINATION	CONSTRUCTIVE MEMORY	OUTCOME SIMULATION
CONCEPTUAL BLENDING	REQUISITE IMAGINATION	CONSUMER IMAGINATION	EPISODIC FUTURE THINKING

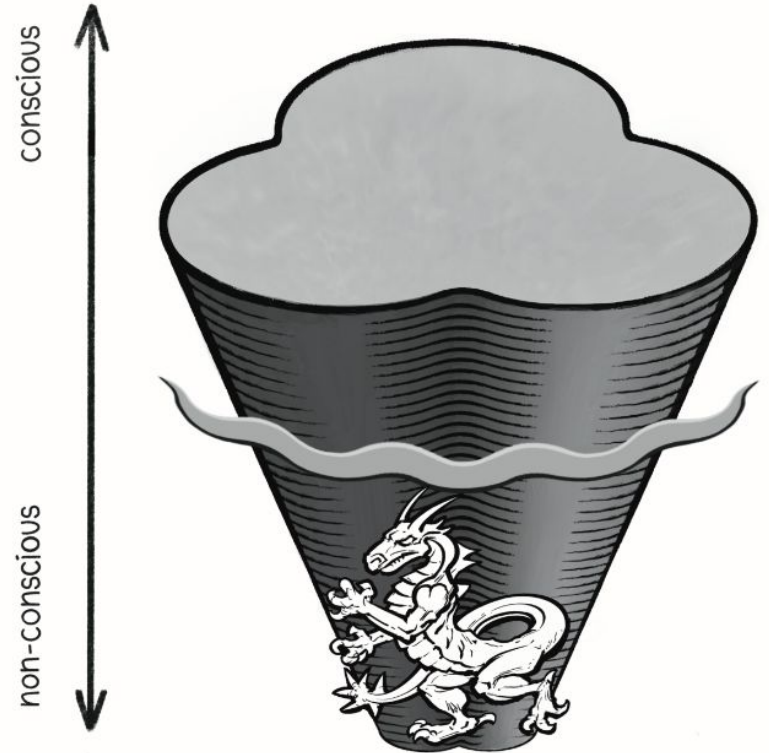
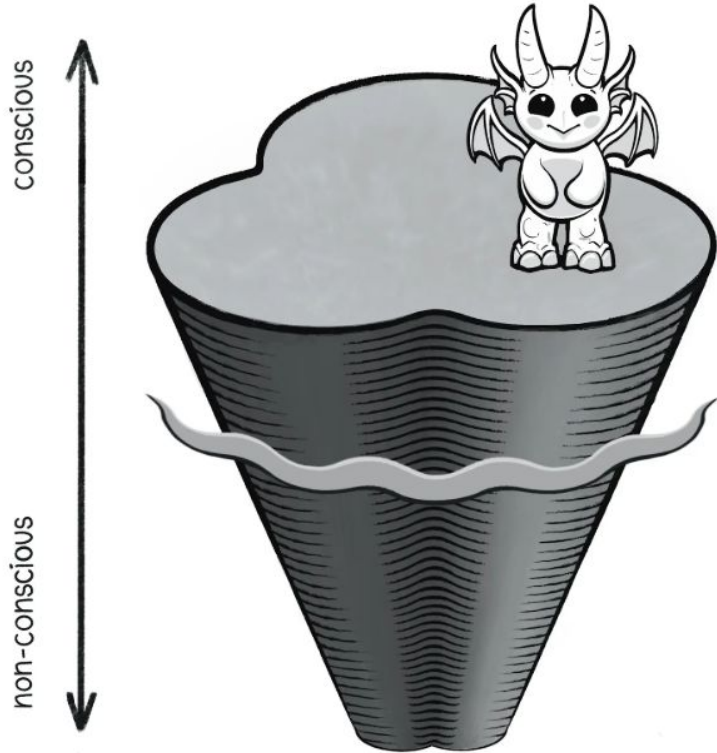
The Atlas of Imagination



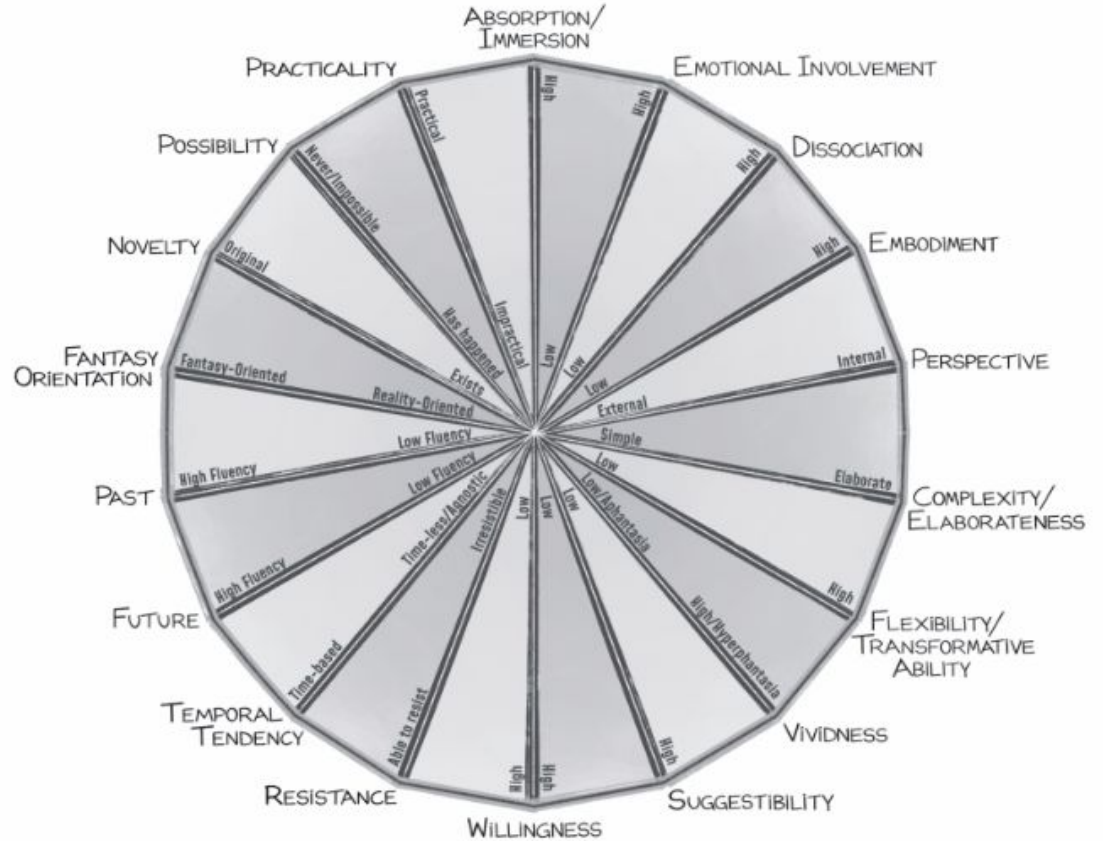
The Atlas of Imagination



The Atlas of Imagination



The Atlas of Imagination



Imagination Survey

What We Set Out to Discover

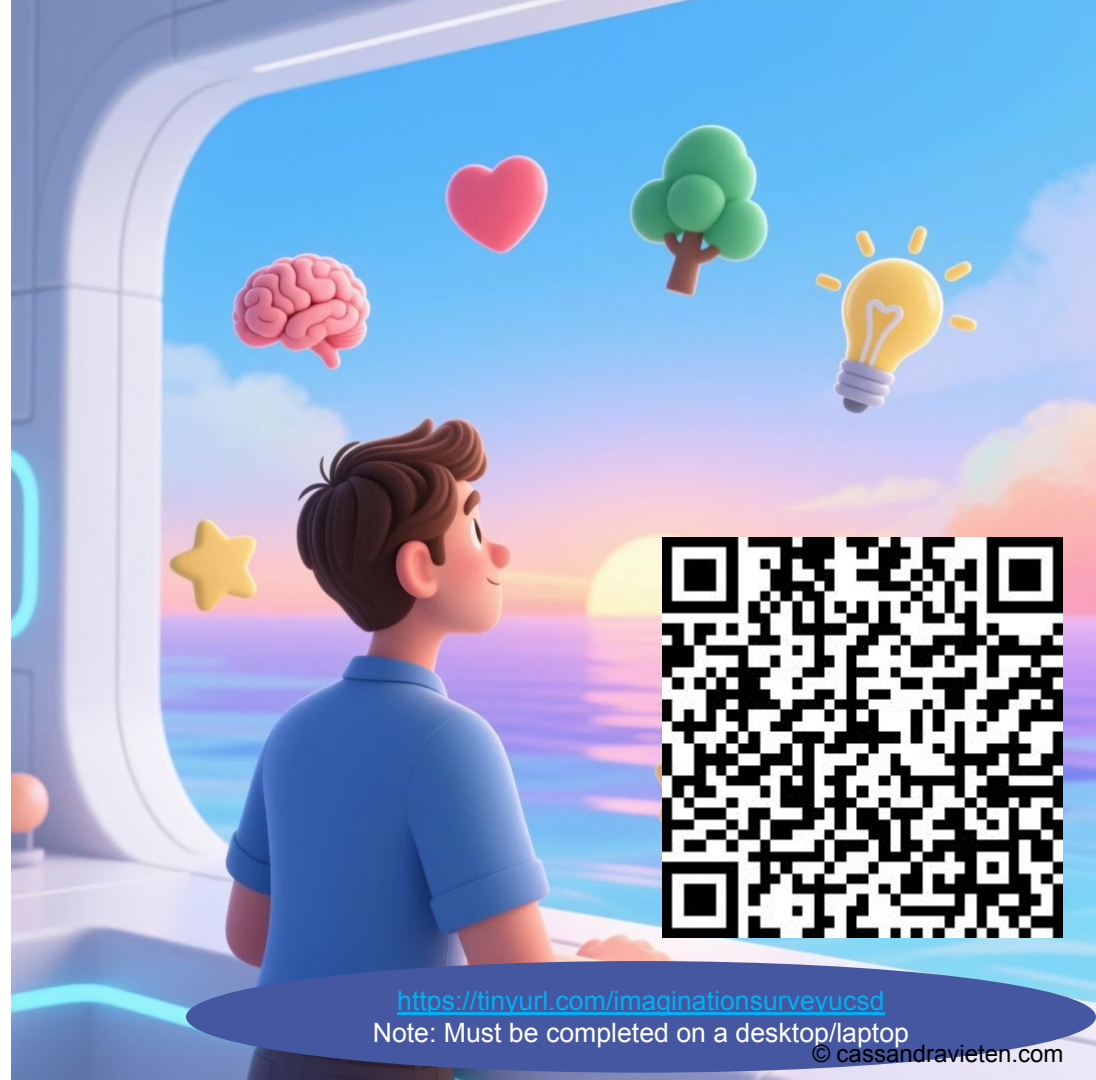
The Core Questions

What does imagination truly mean to people?

How do they experience it, use it, and describe it in their own words?

Can imagination be mapped and measured — like personality traits or cognitive styles?

We designed a study to explore these questions with over 500 U.S. adults, capturing the diversity of human imaginative experience.



<https://tinyurl.com/imaginationsurveyucsd>

Note: Must be completed on a desktop/laptop

© cassandravieten.com



What People Imagined

When asked to imagine anything they wished, participants conjured a remarkable spectrum of mental scenes:



Nature & Serenity

forests, mountains, sunsets



Fantasy & Surreal

mythical creatures, magical worlds



Relationships & Home

love, friends, partners, pets



Aspirations & Hope

the success, travel, transformation

Overall sentiment was **positive and calming**, with high levels of joy, peace, and anticipation reflected in the imagery.

How People Defined Imagination

Most participants described imagination as **the mind's ability to create experiences or ideas beyond current reality.**

Top recurring words: ability, create, ideas, mind, images, experiences, think, visualize

Other Common Interpretations

- A mental playground for creativity and innovation
- A way to relive cherished memories or dream about the future
- A powerful source of problem-solving and inspiration
- An escape that also deepens understanding

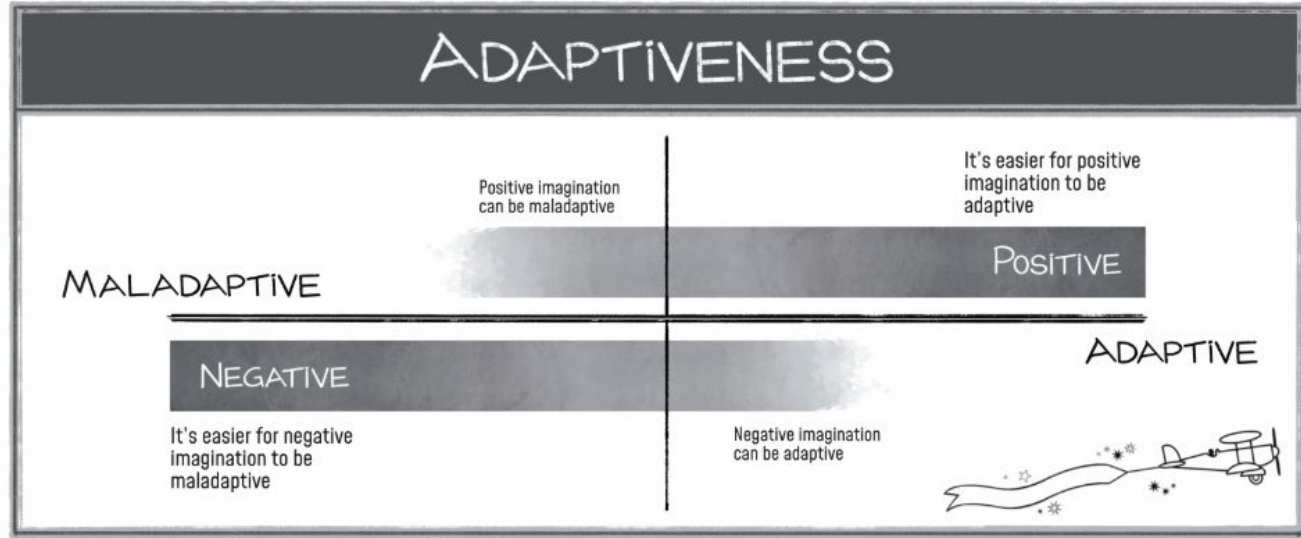
The average emotional tone was **highly positive** — people see imagination as a strength and a gift, not merely an escape.



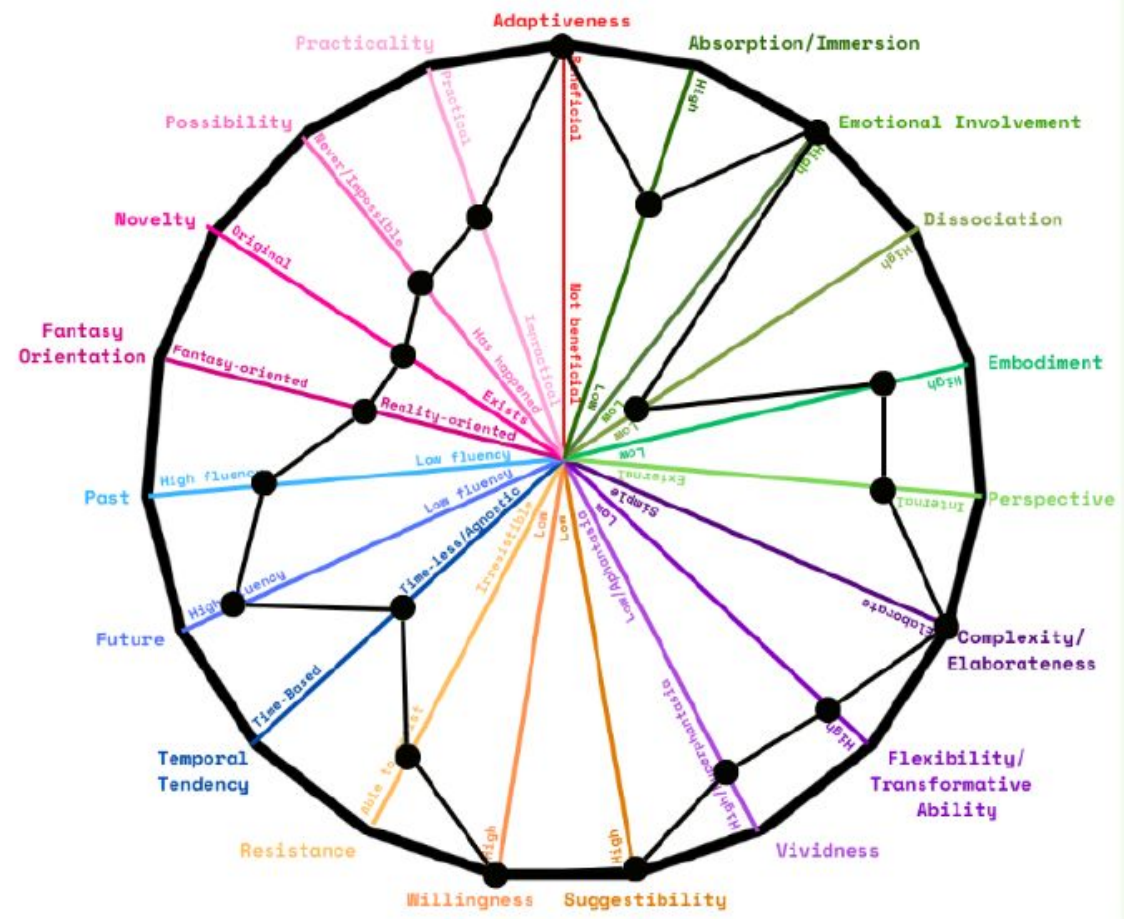
The Atlas of Imagination

PRESENCE	EMBELLISHMENT	RECEPTIVENESS	TIME TRAVEL	ORIGINALITY
ABSORPTION/ IMMERSION	COMPLEXITY/ ELABORATENESS	SUGGESTIBILITY	FUTURE	FANTASY ORIENTATION
DISSOCIATION	VIVIDNESS	WILLINGNESS	PAST	NOVELTY
EMBODIMENT	FLEXIBILITY/ TRANSFORMATIVE ABILITY	RESISTANCE	TEMPORAL TENDENCY	POSSIBILITY
EMOTIONAL INVOLVEMENT				PRACTICALITY
PERSPECTIVE				

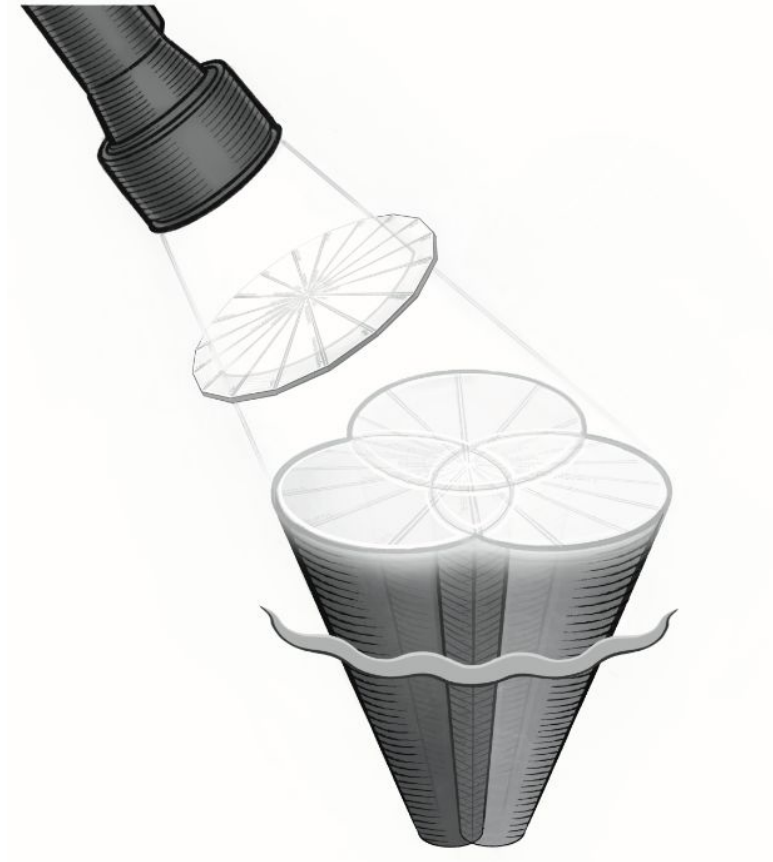
The Atlas of Imagination



General Imagination Profile



The Atlas of Imagination





Imagination vs. Creativity

Imagination

- Thinking it
- Limitless & boundless
- Internal & emotional
- The idea stage
- Pure possibility

Creativity

- Making it real
- Grounded in skill or tools
- External & tangible
- The action stage
- Realized expression

"imagination is the spark, and creativity is the process of shaping and bringing that spark to life."

This distinction emerged consistently across hundreds of responses and aligns beautifully with established psychology research on creative cognition.

Imagination is the internal process of envisioning possibilities...

Creativity is the external application of that imagination through action and creation.

The beauty of
limitlessness



The magic of
constraint



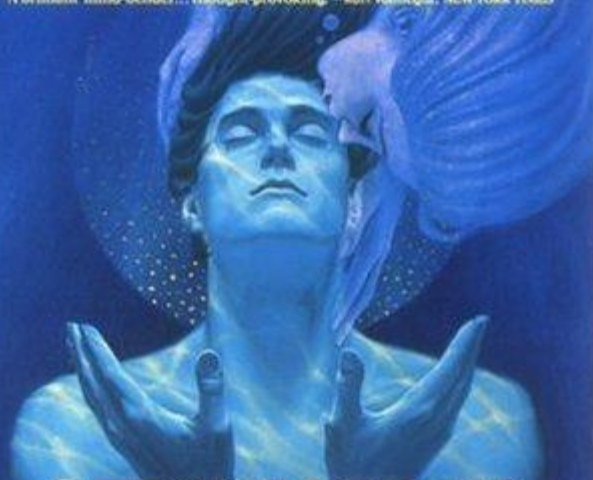
8. Some truths can only be grokked in fiction

THE ORIGINAL UNCUT VERSION

★ OF THE BESTSELLING CLASSIC ★

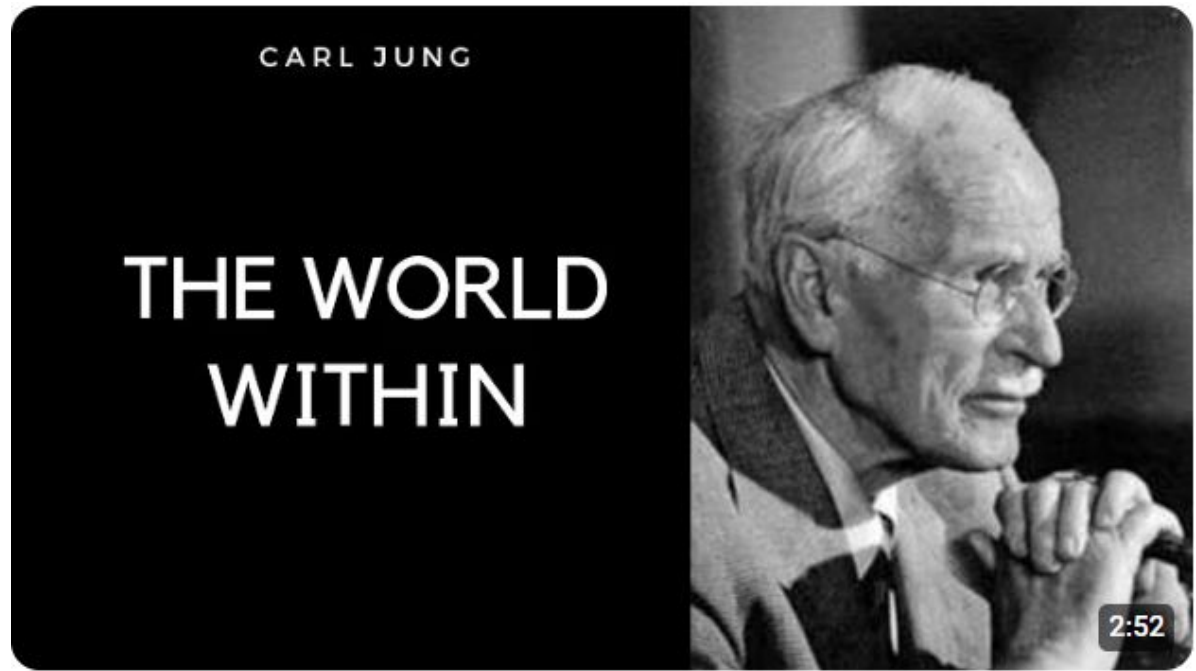
ROBERT A. HEINLEIN

"A brilliant mind-bender... thought-provoking" —Kurt Vonnegut, NEW YORK TIMES

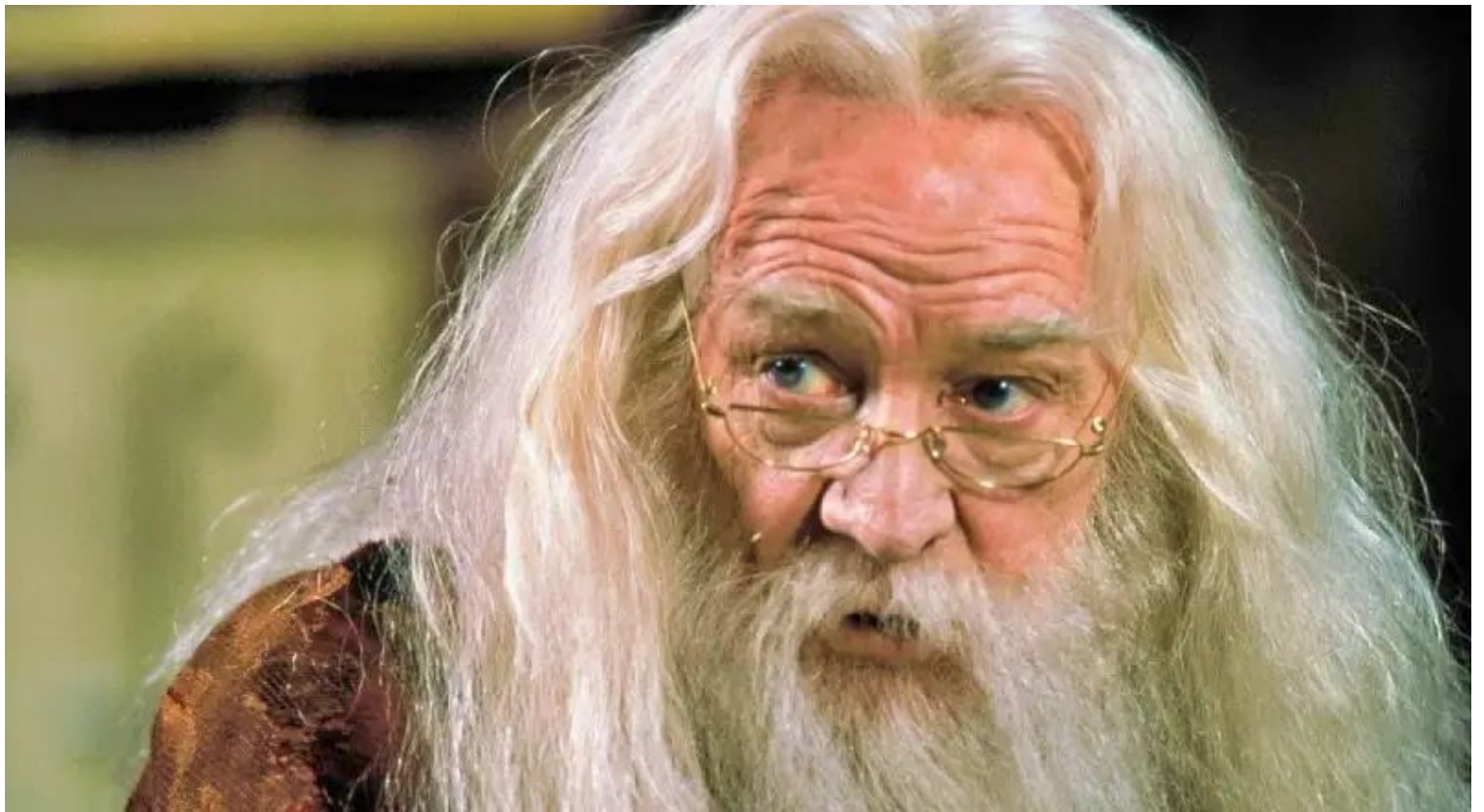


STRANGER IN
A STRANGE LAND





<https://www.youtube.com/watch?v=AjgEOLocrus&pp=ygUVY2FybCBqdW5nIGltYWdpbmF0aW9u>



<https://youtu.be/MximN8Esgco>

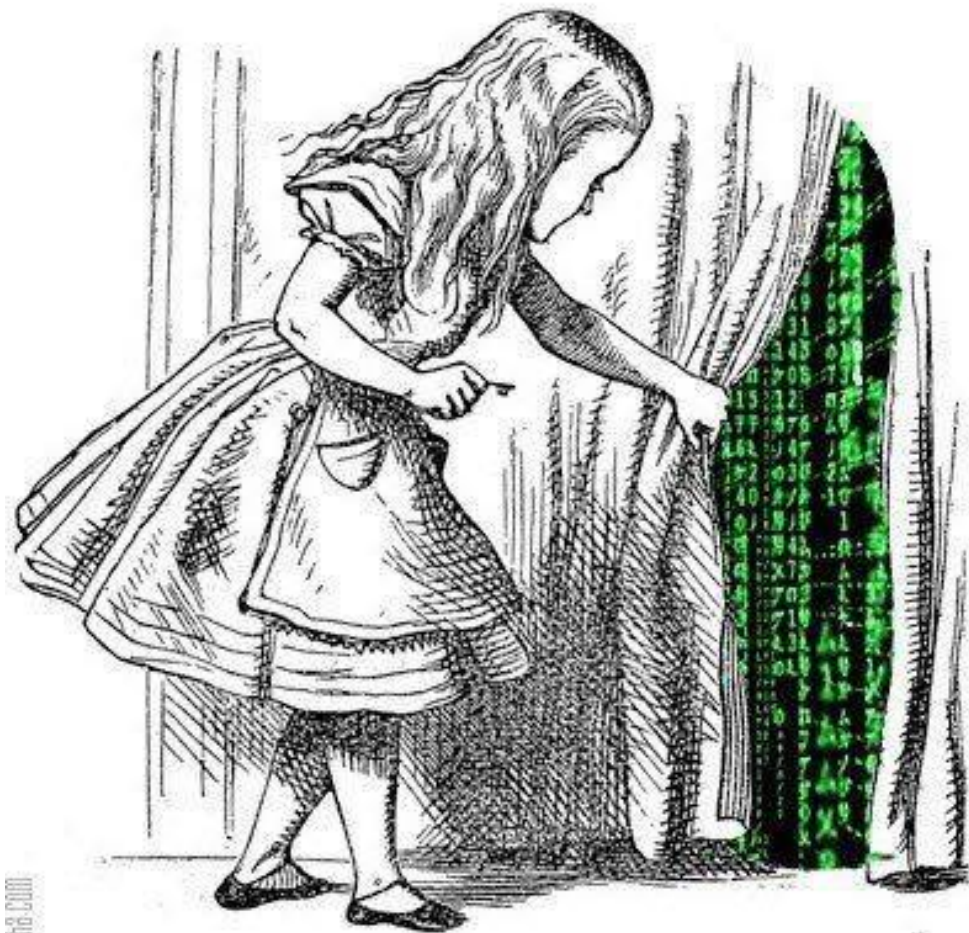
“Tell me one last thing,” said Harry. “Is this real? Or has this been happening inside my head?”

Dumbledore beamed at him, and his voice sounded loud and strong in Harry’s ears even though the bright mist was descending again, obscuring his figure.

“Of course it is happening inside your head, Harry, but why on earth should that mean that it is not real?”

— **J.K. Rowling, Harry Potter and the Deathly Hallows**





Person A

Person B

Supra-
liminal

Supra-
liminal

Subliminal self

Subliminal self

Common ground



Person A

Person B

Supra-
liminal

Supra-
liminal

creativity

Subliminal self

Subliminal self

imagination


Common ground

Purposeful Imagination

- comes from me
- takes practice

Spontaneous Imagination

- comes through me
- takes conducive conditions

A glowing lightbulb is the central focus, with a landscape of mountains and a sunset scene inside it. The background of the entire slide is a sunset over a landscape with mountains. The text is overlaid on this image.

People say I have created things. I have never created anything. I get impressions from the Universe at large and work them out, but I am only a plate on a record or a receiving apparatus — what you will. Thoughts are really impressions that we get from outside.

~ THOMAS ALVA EDISON, inventor

Quoted in: Neil Baldwin. *Edison: Inventing the Century*. NY: Hyperion; 1995: 376.

Chapter 1: Your Amazing Imagination: What It Is and Where it Came From

Chapter 2: The Wild History Imagination Science

Chapter 3: Waking the Dragon: Bringing Imagination Into Awareness

Chapter 4: The Atlas of Imagination: Understanding Your Unique Profile

Chapter 5: Imagining on Purpose: Practices to Cultivate Possibility

Chapter 6: Dreaming the Body: The Influence of Imagination on Biology

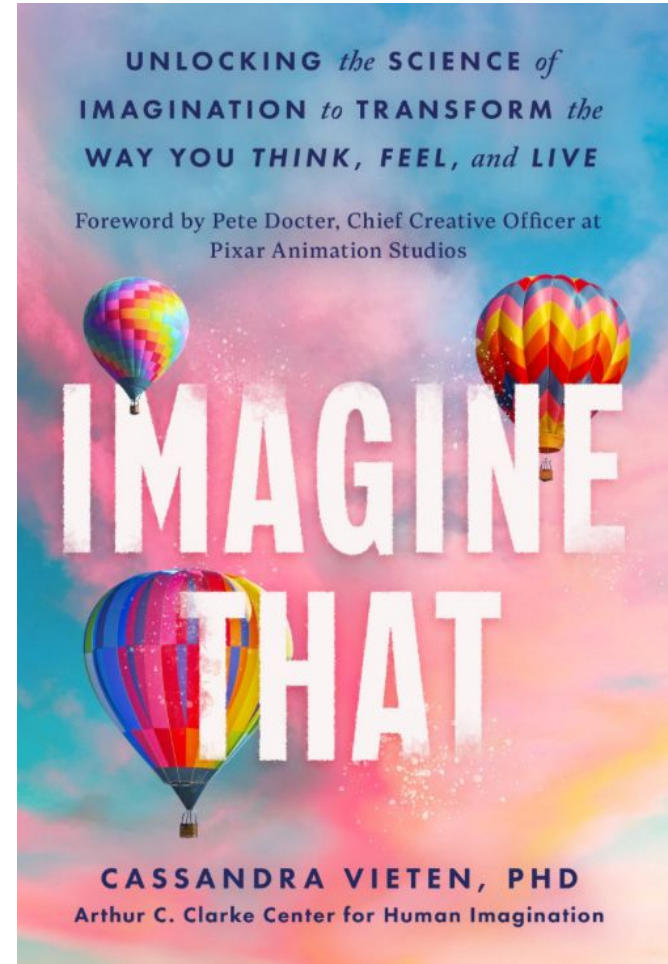
Chapter 7: Rewiring the Mind: How Imagination Improves Mental Health

Chapter 8: Everyday Enchantment – How Imagination Can Be Used in Daily Life

Chapter 9: The Next You: The Art of Futuremaking

Chapter 10: The Magic: How Imagination Restores Wonder and Mystery

Conclusion: The Future of Imagination



Forthcoming

August 2026

Simon Element

Simon and Schuster

<https://www.amazon.com/Imagine-That-Transform-Science-Imagination-ebook/dp/B0FX5T6D19>



TRANSFORM HOW YOU
THINK, FEEL, *and* LIVE WITH *the*
SCIENCE *of* IMAGINATION

Foreword by Pete Docter, Chief Creative Officer at Pixar



CASSANDRA VIETEN, PHD
Arthur C. Clarke Center for Human Imagination

Upcoming Workshops

**How We Change
& Why We Don't**

Esalen Institute
May 25 - 29, 2026
www.esalen.org

Cassandra Vieten, PhD

+ Guest Faculty
Nichol Chase

The poster features a scenic background of a coastal path with a railing overlooking the ocean. Two circular portraits of the speakers are overlaid on the bottom left.

**The Next You:
The Art of
Futuremaking**

ESALEN INSTITUTE
MAY 29-31, 2026
WWW.ESALEN.ORG

cassandra vieten + bristol baughan

The poster features the same scenic background as the first poster. Two circular portraits of the speakers are overlaid on the right side. A vertical orange bar on the left contains the speakers' names.



Thank You

Learn more at the Arthur C. Clarke Center for Human Imagination
Imagination.ucsd.edu

Contact: cvieten1@health.ucsd.edu