The Role of Metaphor in Interaction Design

Dan Saffer

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A metaphor is “a device for seeing something *in terms of* something else. It brings out the thisness of that or the thatness of a this.”

—Kenneth Burke, 1945

The Four Master Tropes

METONOMY: embodiment of the ethereal

SYNECDOCHE: the part for the whole

IRONY: two levels of meaning

METAPHOR: perspective

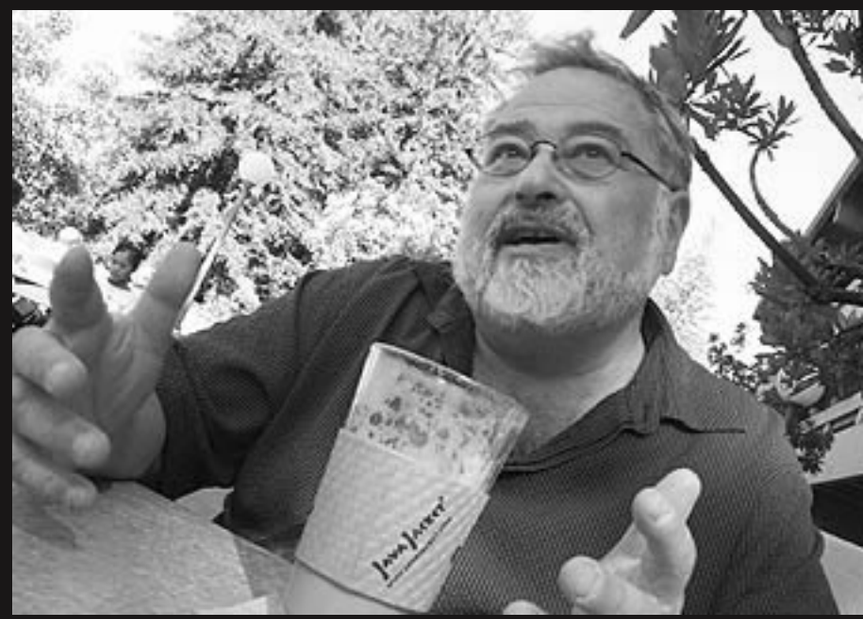
“To consider A from the point of view of B is, of course, to use B as a *perspective* upon A.” —Burke

But, soft! what
light through yonder
window breaks?

It is the east,
and Juliet is the sun!

—*Romeo and Juliet*, II.i

"Our conceptual system is fundamentally metaphoric in nature."



—George Lakoff and Mark Johnson

He spends his time wisely.

Summer is just around the corner.

There's a hole in that theory.

She's an old flame.

The class tried to keep up with the schedule.

She profited from the experience.

He has a screw loose.

My thoughts are scattered.

She went back to sleep.

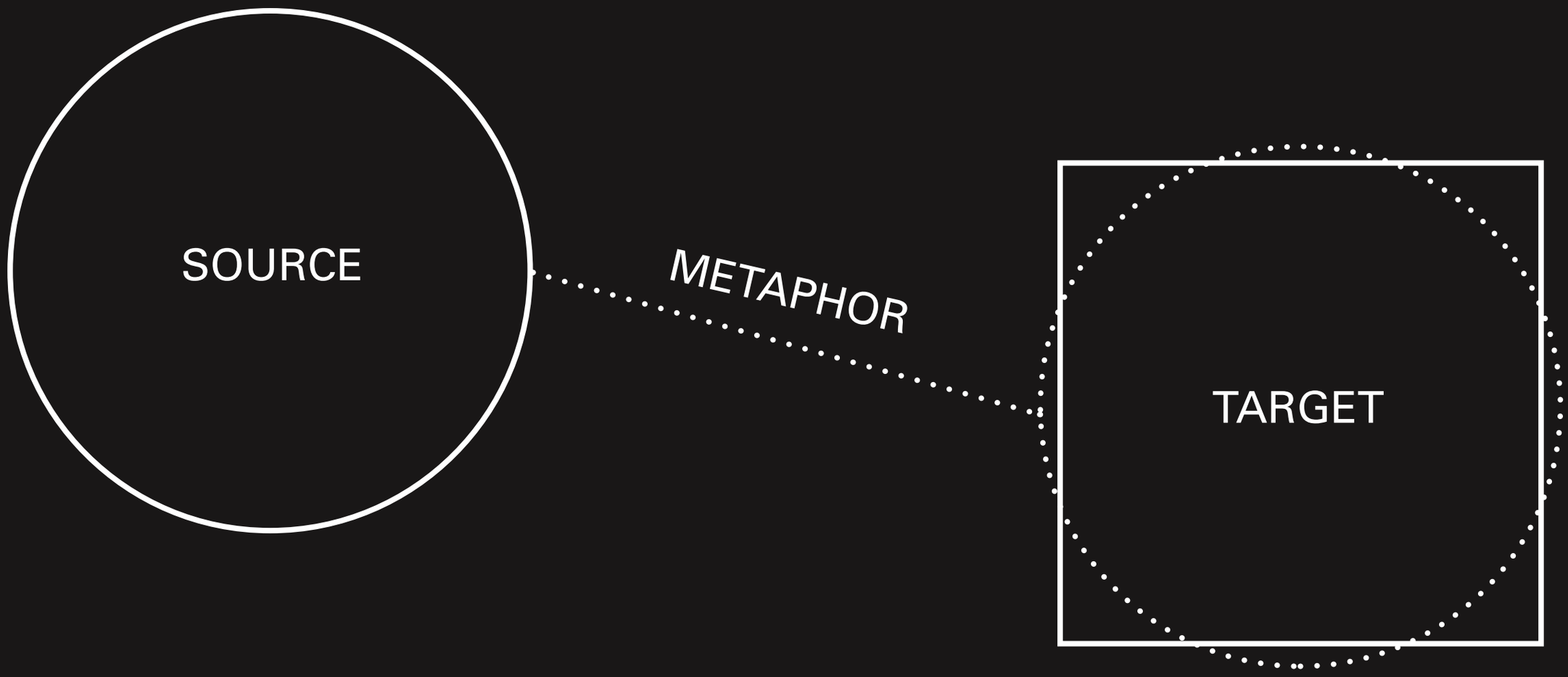
He cherishes that belief.

He exploded.

I couldn't take my eyes off him.

His hair went gray.

She has a great sense of humor.



Metaphor is not just about language; it's really about thought. We conceive of things in terms of other things.

Affection is Warmth

My love for her still smolders.

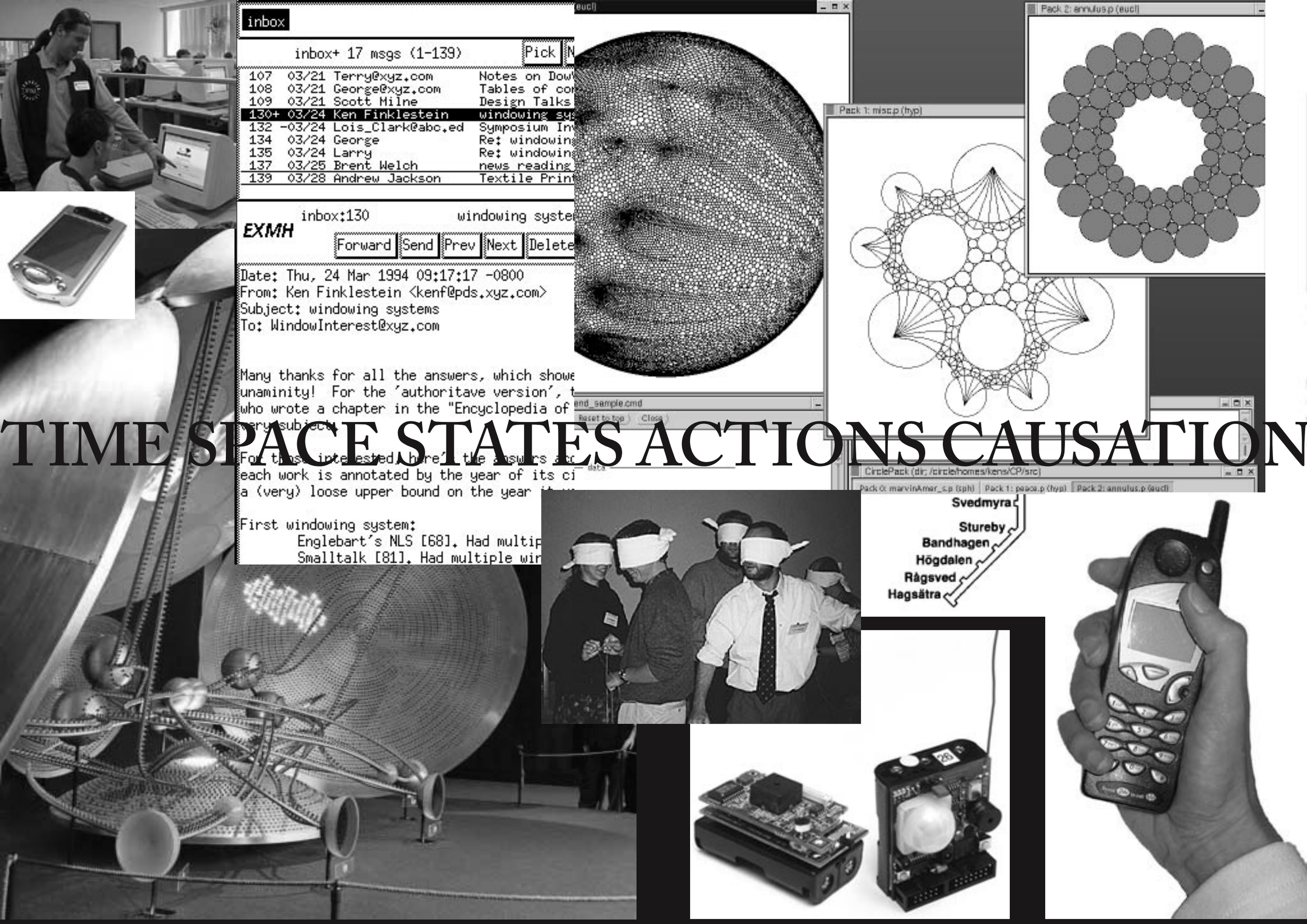
They gave me a warm welcome.

He’s a warm person.

It took a while to warm up to the topic.

is

TIME SPACE STATES ACTIONS CAUSATION



TIME SPACE STATES ACTIONS CAUSATION

Interaction Design

Facilitating or instigating interactions between humans (or their agents) mediated by products

Can also signify interactions between humans and products

Interactions: mainly communication, either one-on-one , one-to-many, or many-to-many.

In the Design Process

Within Products

The problem
is that problems
are not fixed.

"Things are selected for attention and named in such a way as to fit the frame constructed for the situation."
—Donald Schöen, 1979

Metaphor in the Design Process

Tea is Chemistry

New ideas are almost always the product of juxtaposition.

Metaphor in the Design Process

An important part of the design process is selling ideas to those who will implement and fund them.

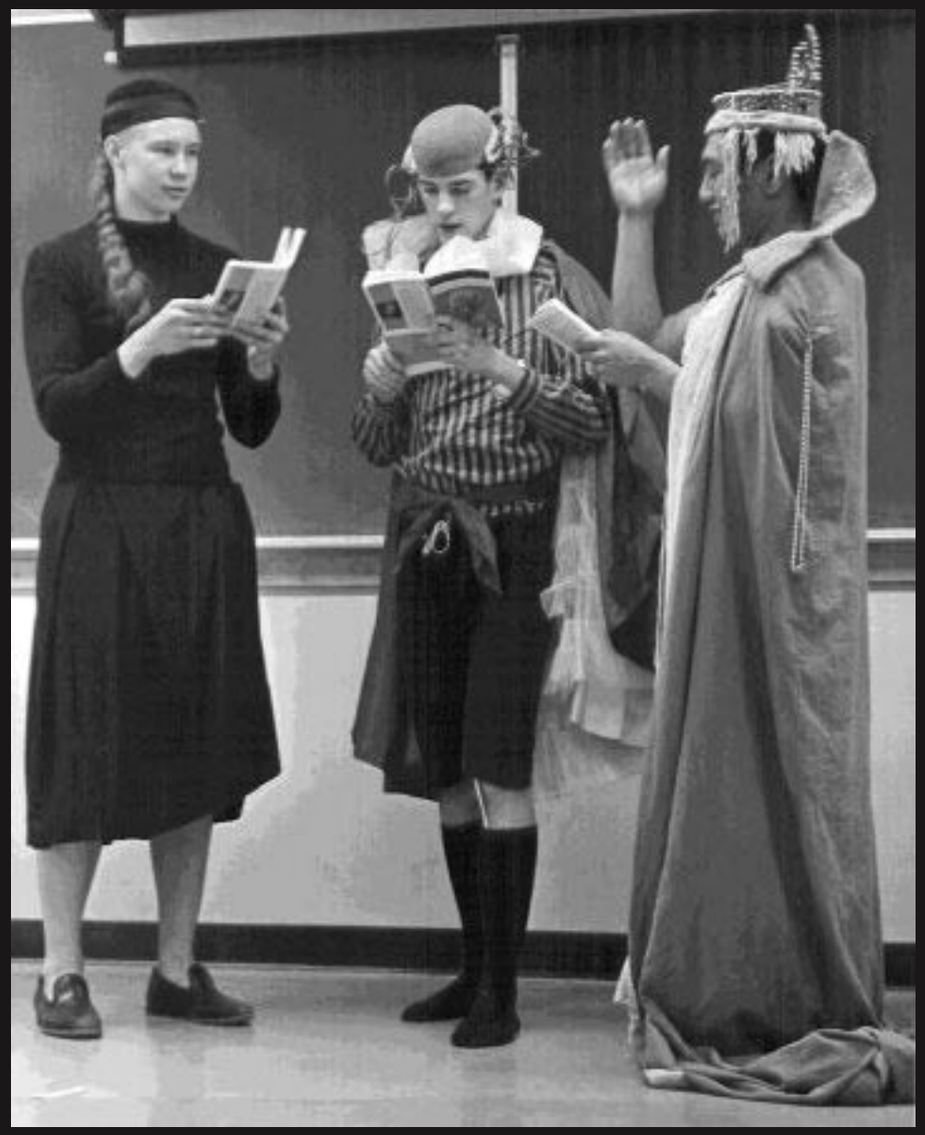
Metaphor in the Design Process

Everything one says about God is a metaphor.
—Paul Tillich

Everything one says about the computer is a metaphor.
—me

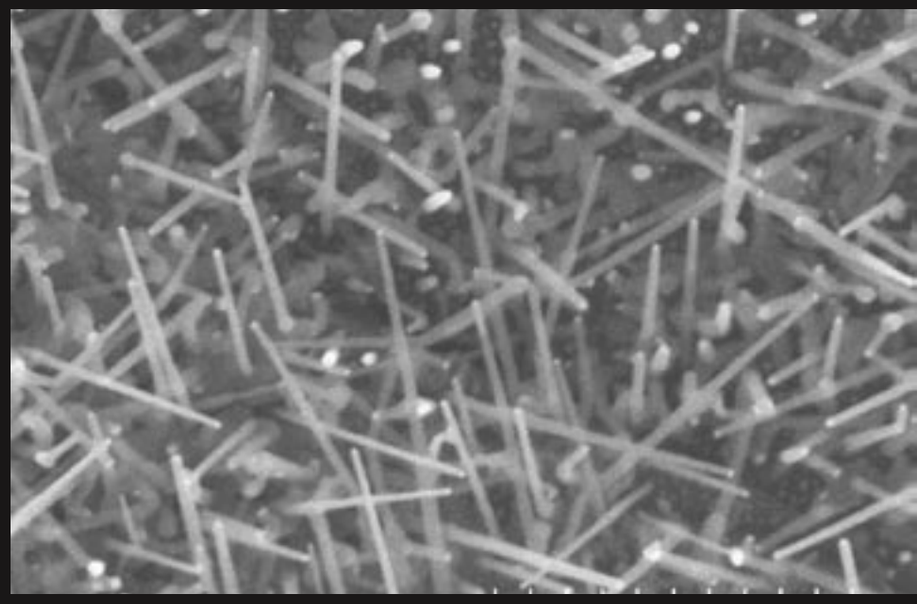
Metaphor in the Design Process

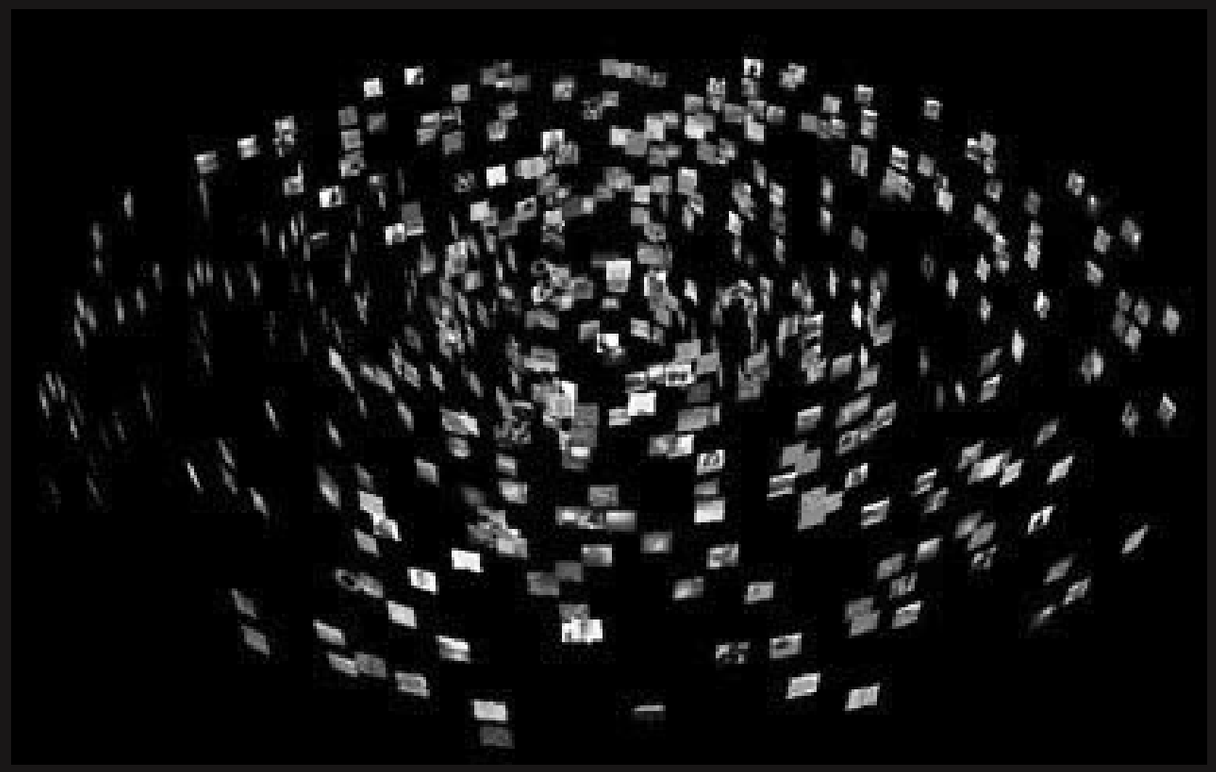
No one addresses their computer without some metaphoric mediation. Metaphor provides us with the means to understand our complex digital devices.



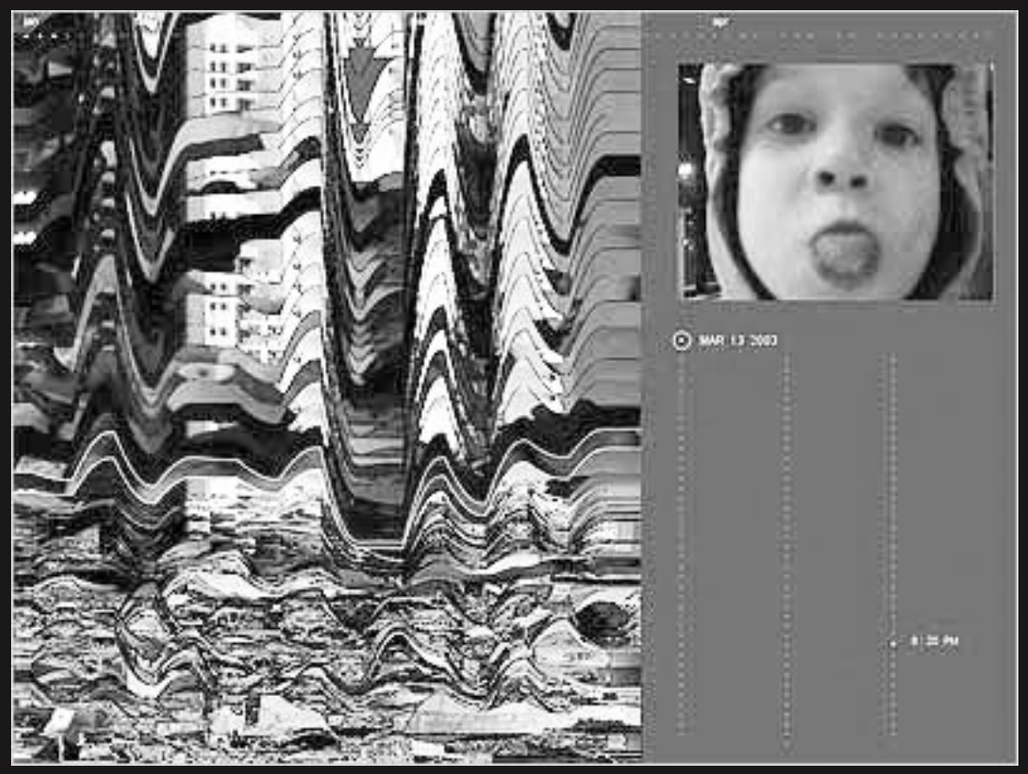
The Design Process is a Story

“Friction in Scheduling and Coordinating Lives in Families:” Friction is a Connector

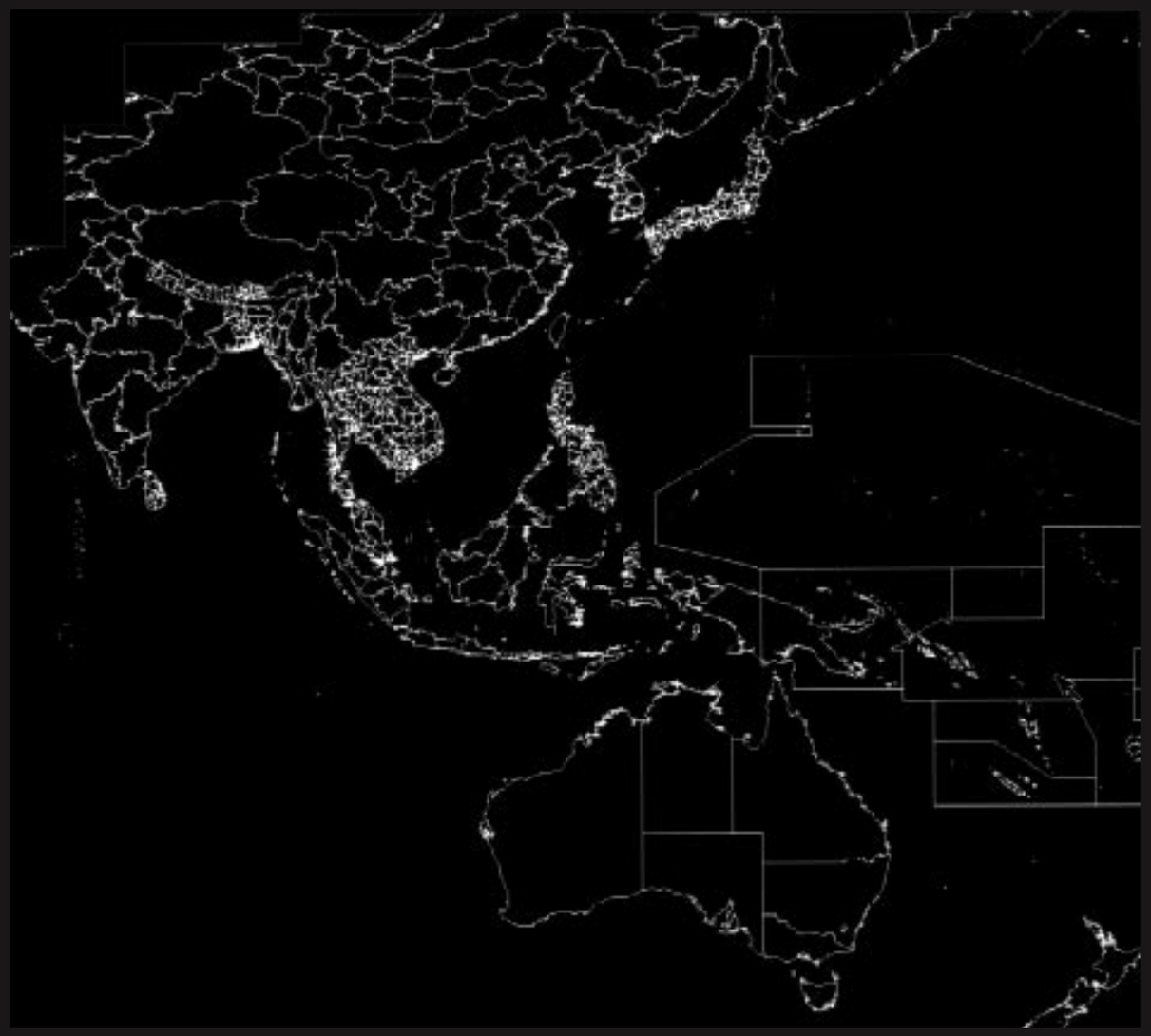




Ryukyu ALIVE: Information Space is a Galaxy



Artifacts of the Presence Era: Data is Geology



Without boundaries, things are difficult to comprehend and reason about.

Moving through Space and Time

Metaphors can endow machines and inanimate objects with human-like characteristics, making them more approachable and usable.

Introducing New Concepts to Users

Criticism

"Searching for a guiding metaphor is like searching for the correct steam engine to power your airplane."
—Alan Cooper

Microsoft's BOB

Metaphors are misleading.

Metaphors do not scale well.

Metaphors degrade over time.

Metaphors are overused.

But...

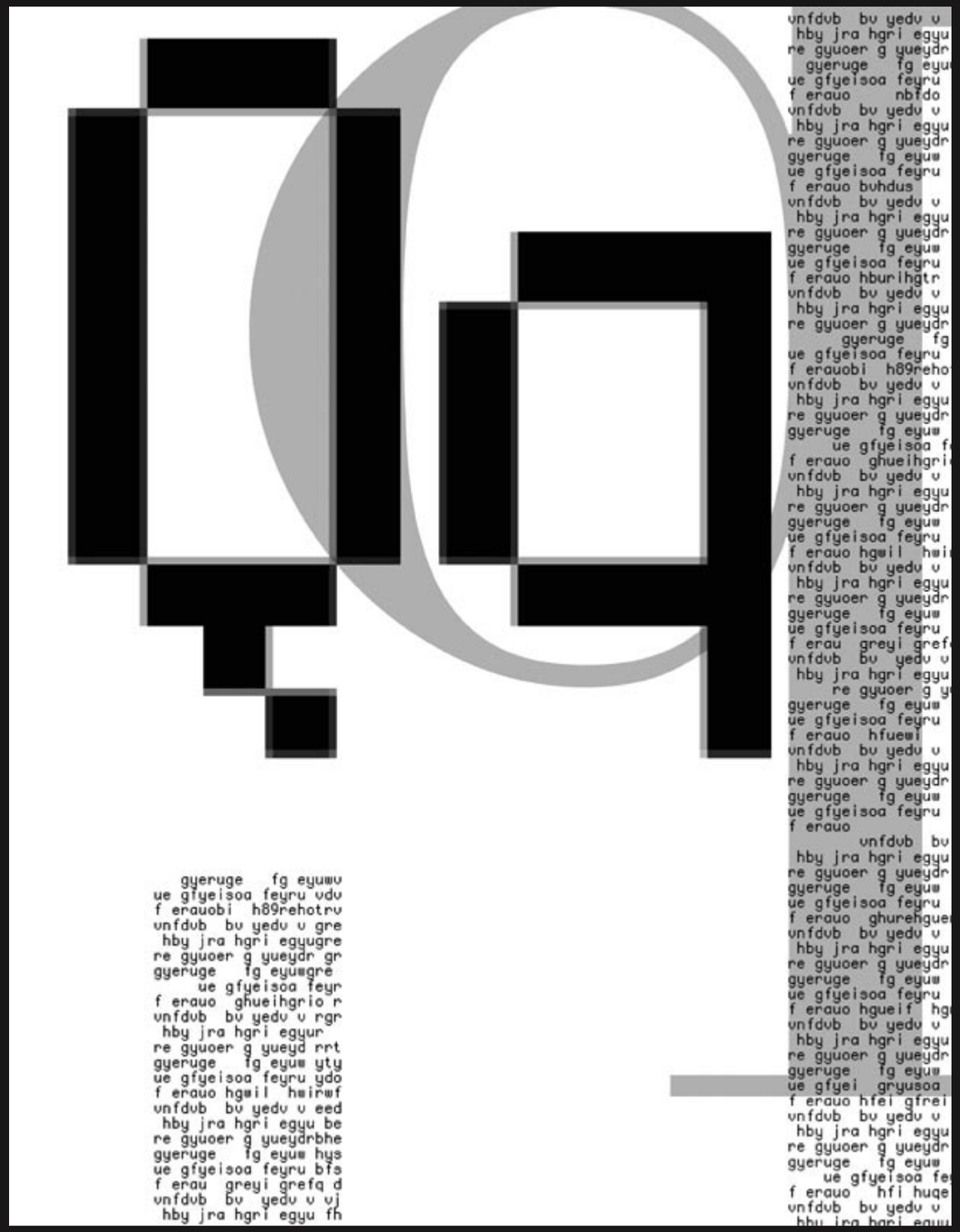
You don't throw away a tool because it is dangerous. You just use it more carefully.

We can't help it.

Let users find their own metaphors?

Limited ways to change perspective.

Too powerful to ignore.



Design is about invention. Invention is the product of juxtaposition. Metaphor is about juxtaposition.

Therefore, it stands to reason that design is about metaphor.

Using Metaphor Appropriately

Use metaphor to find the hidden characteristics of the content.

Fit the metaphor to the content, not the other way around.

Be aware of the cultural and contextual properties of metaphor.

Choose metaphors that scale appropriately.

A Tool to Change Behavior

Metaphors We Live By
by George Lakoff and Mark Johnson

Metaphor and Thought
edited by Andrew Ortony

"Working with Interface Metaphors"
by Thomas D. Erickson in *The Art of Human-Computer Interface Design*

Thanks.

Questions?