

Designing Nature Inspired Sustainable Futures

Green Tech South West - Oct '22

James Chudley - @chudders



Designers love **problems..**

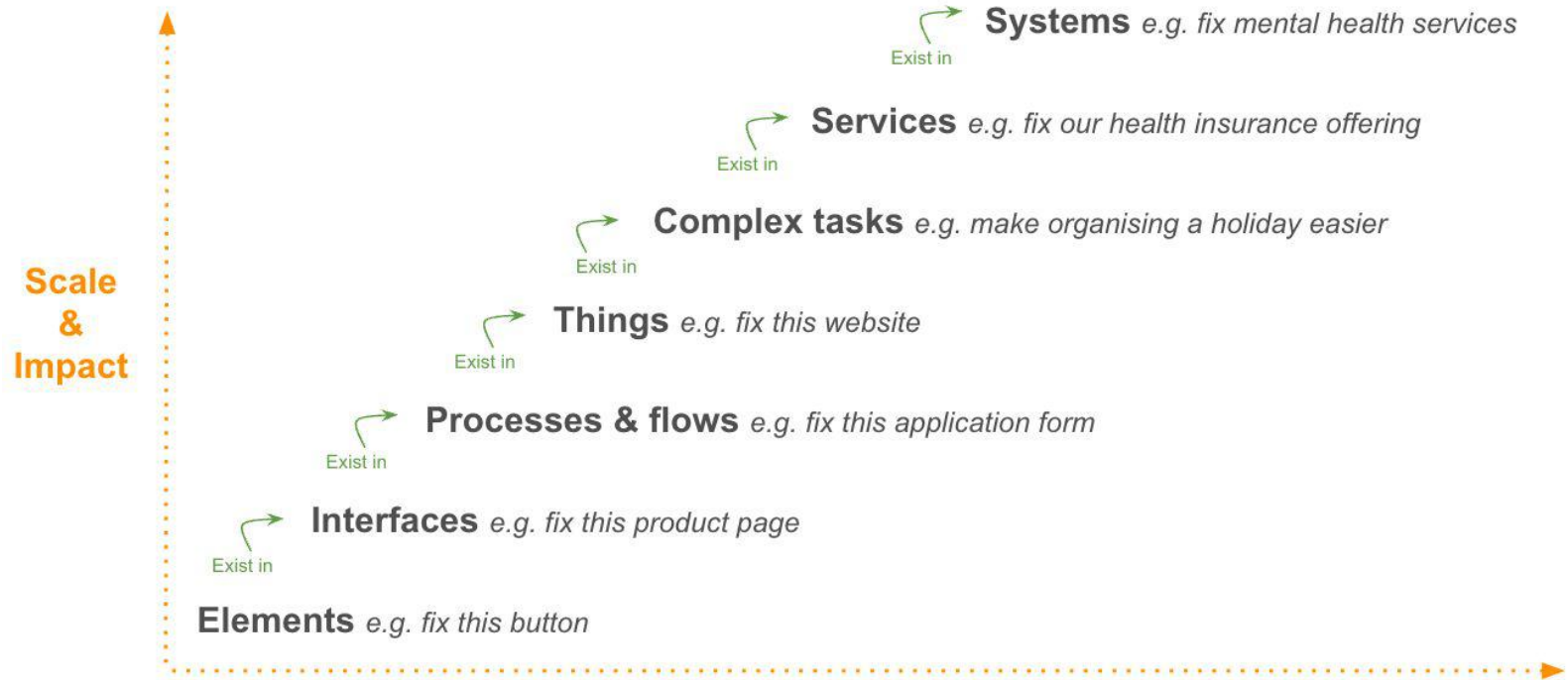
The problems we are working on are getting **harder** / more **complex** / more **important**

What is the best
label for this
button?



Why are people
with severe
mental illness
not going to the
doctors?

'Design hierarchies'



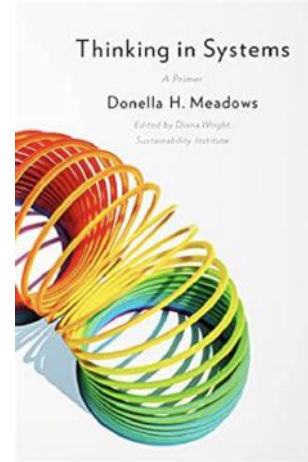
The scale of the problems that designers are now trying to fix are **massive, systemic problems** like climate change, sustainability and inequality that represent some of the **biggest challenges** that **humanity** faces **today**

Where the *hell* do you even start?!

*“A **system** is a **set of things**—people, cells, molecules, or whatever—interconnected in such a way that they produce their own pattern of **behavior** over time.”*

Donella Meadows

@chudders



Nature is the ultimate system

4.5 billion years of evolution (one hell of a design sprint)



Design is theft

What if nature has already solved every problem?

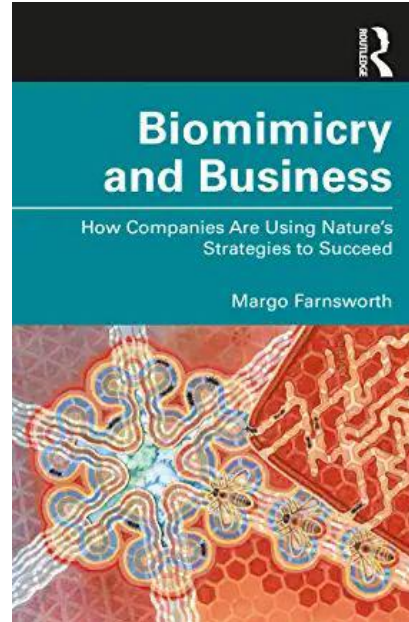
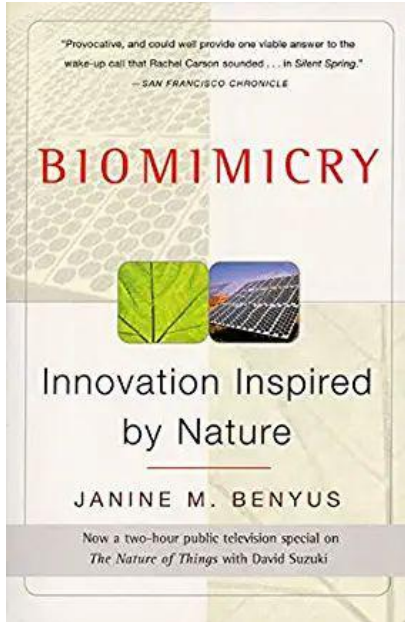


Nature as muse

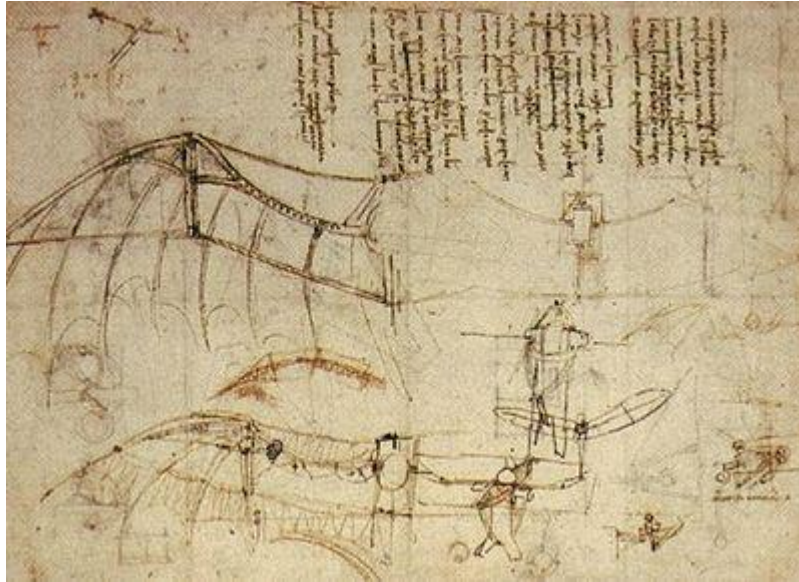
Introducing 'Biomimicry'

Biomimetics / biomimicry

..the emulation of the models, systems, and elements of nature for the purpose of solving complex human problems



Leonardo da Vinci's design for a flying machine (1480) with wings based closely upon the structure of bat wings



RESOURCE: RESOURCE BUNDLE

Hooked on You!

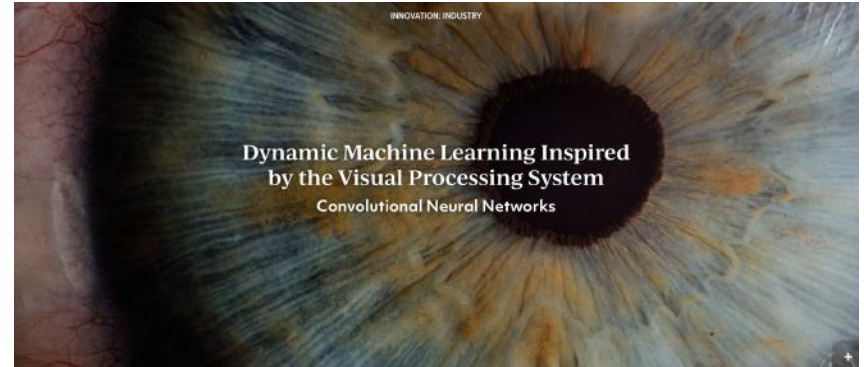
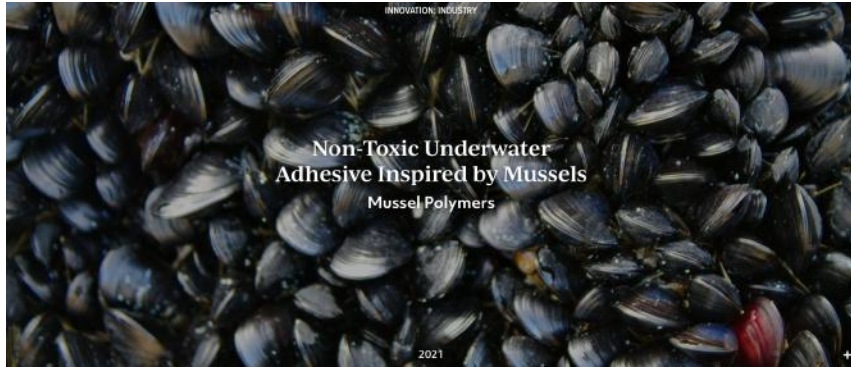
Biomimicry Institute

Image: Biomimicry Institute / Copyright © - All rights reserved



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www.asknature.org

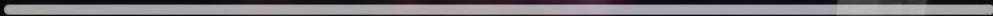


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N SERIES

Abstract

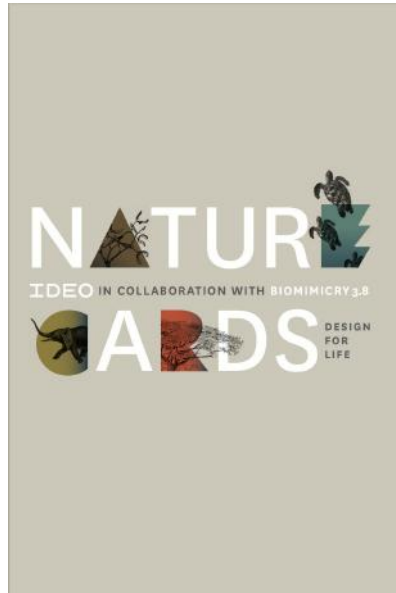
THE ART OF DESIGN



00:00 / 17:23



‘How can I make my business to be more sustainable?’



RELATIONSHIPS

Keystone Species

Some species play a disproportionately critical role in maintaining the structure of an ecological community.

Sea otters keep sea urchin numbers in balance, allowing kelp beds to thrive. Without sea otters, sea urchin populations grow very quickly and eat up entire kelp beds, displacing the many fish species that spawn there.

YOU MIGHT ASK

Are there keystones—people, places, or things—in our systems?

What might we do to augment their effect?

How do they stabilize other elements in the system?

COMMUNITY CATALYSTS

The US Green Building Council structured communication in its chapter organization around “keystone experts” who invite participation, foster relationships, and share content across the organization.

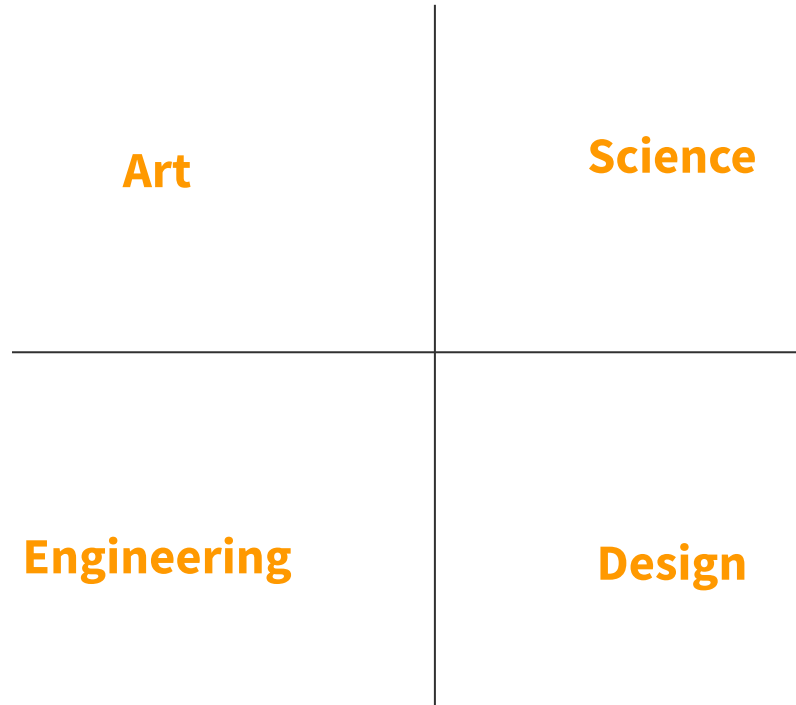
Nature Cards are a collection of cards featuring strategies from the natural world that inspire us with a new mindset as we approach design challenges....<https://www.ideo.com/post/nature-cards>



‘Do more with less’

Buckminster Fuller

Bristol as a perfect hub for biomimetic thinking



*“The world is full of magical things
– patiently waiting for our senses
to grow sharper.”*

W.B Yeats

“Fortune favours the prepared mind.”

Louis Pasteur

‘(Ask a biologist) ***How has nature*** already solved the problem of sustainability?’

Thank you!

James Chudley
@chudders

