

Science for the People and The Truth School

Present

STORYTELLING FOR SOLIDARITY SCIENCE

October 23rd,
2020

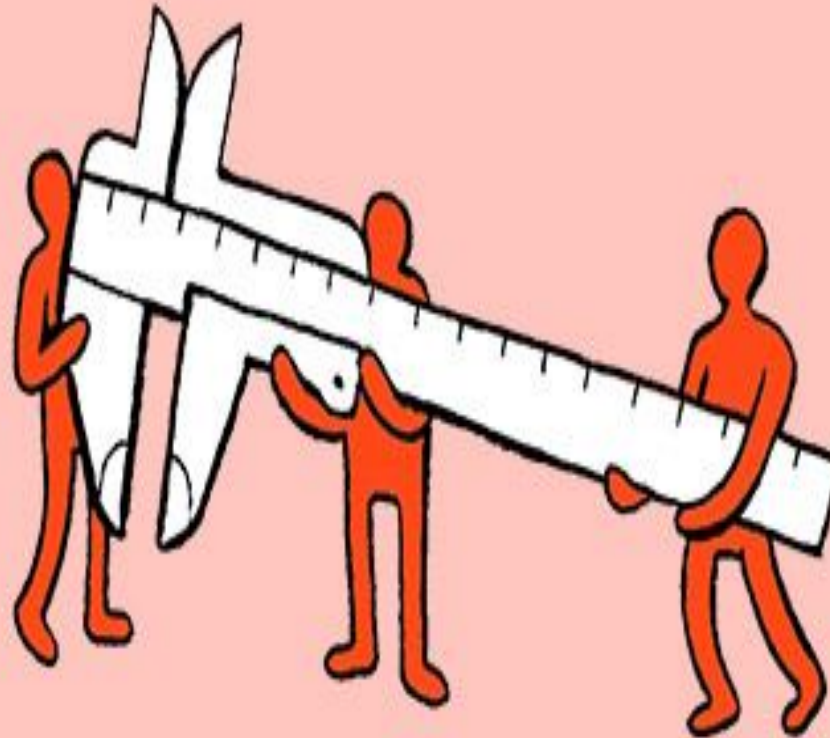
Solidarity Science
Storytelling



Solidarity Science:

Everyone has expertise based on their experience and social location.

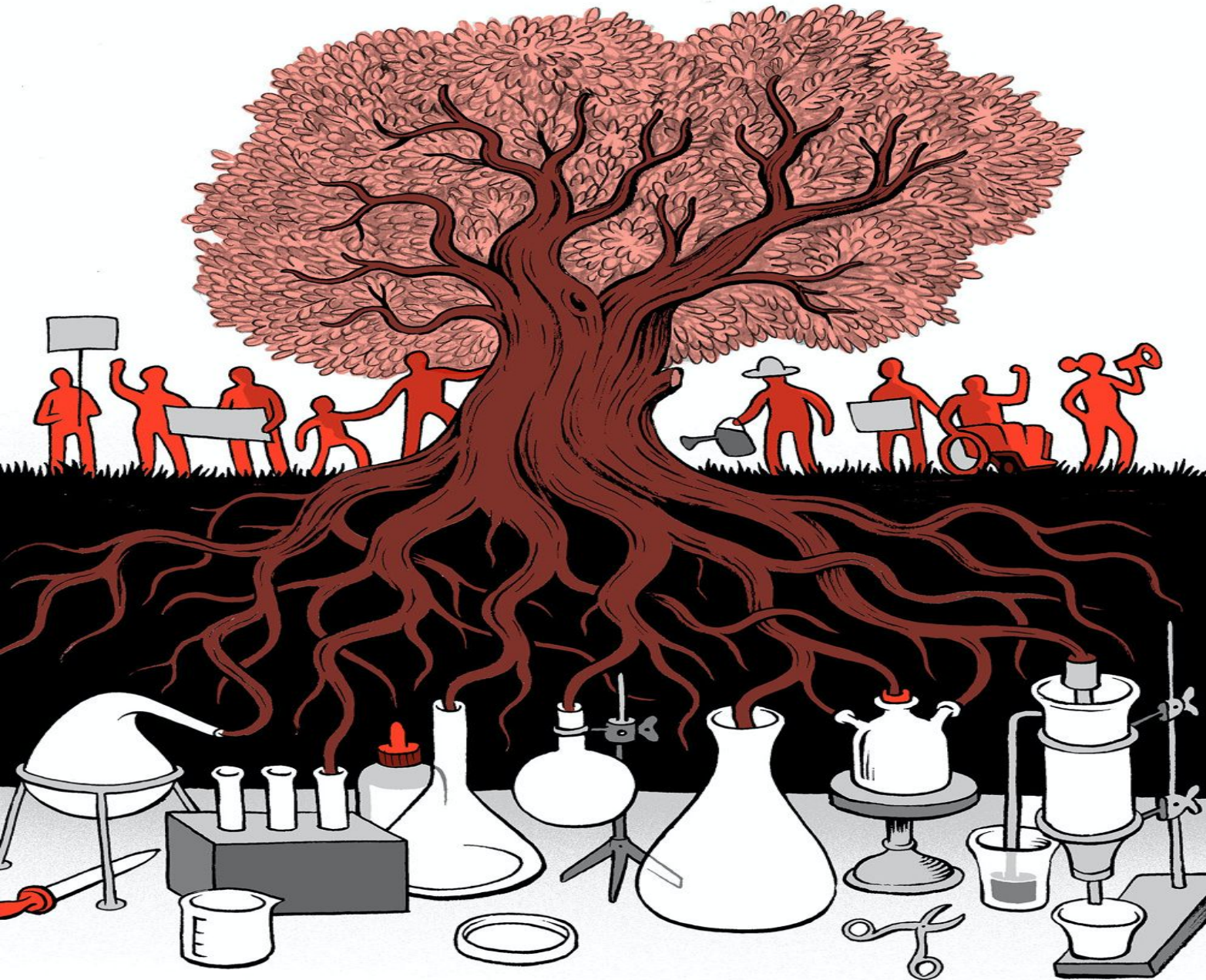
Scientific knowledge is more robust when people with different experiences and perspectives participate.



When people come together to share their different forms of expertise in a collective effort to achieve justice, we call that **solidarity science**.

But this doesn't happen without conscious effort to subvert social hierarchies!

Storytelling is a fundamental way that humans create and share knowledge...

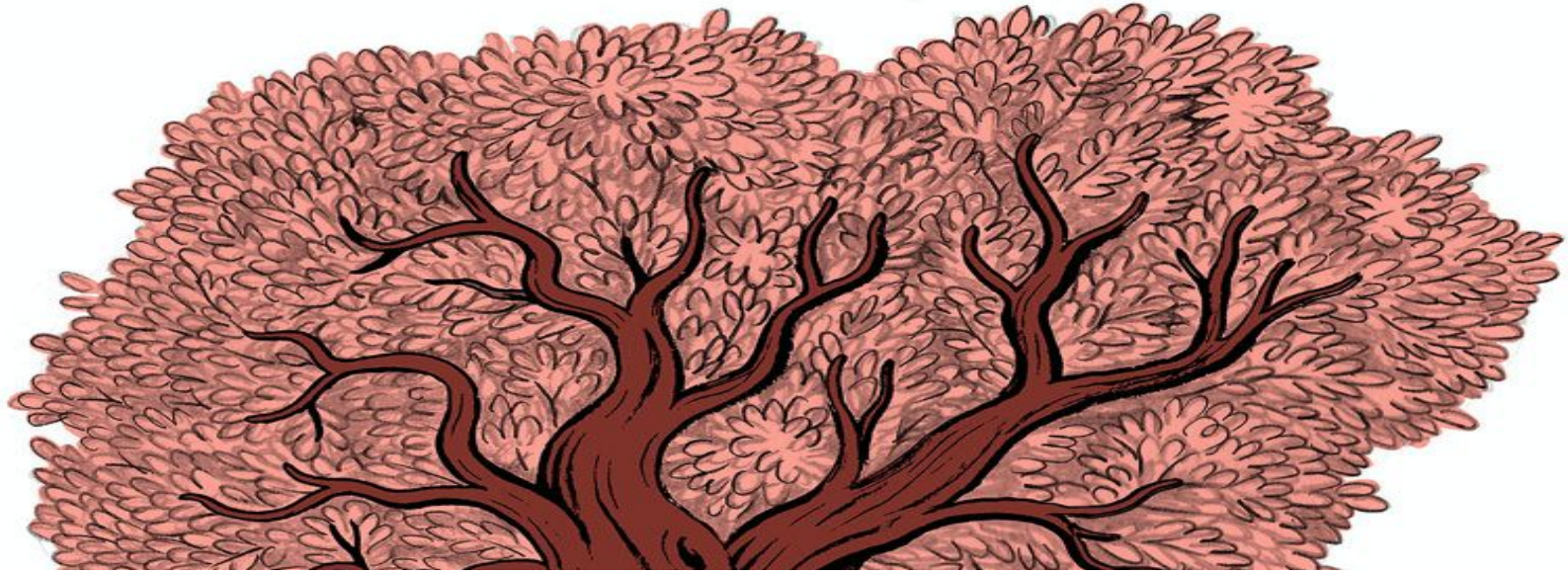


***Scientists tell stories, too!
Recognizing that can help us humanize science and make it more accessible.***

We get our sense of who we are and what the world is based on the stories we tell

Science without stories is just noise

STORYTELLING...



Is accessible, and thus subverts power hierarchies.

**Scientists are used to telling... they can learn to
listen more ...**

STORYTELLING...



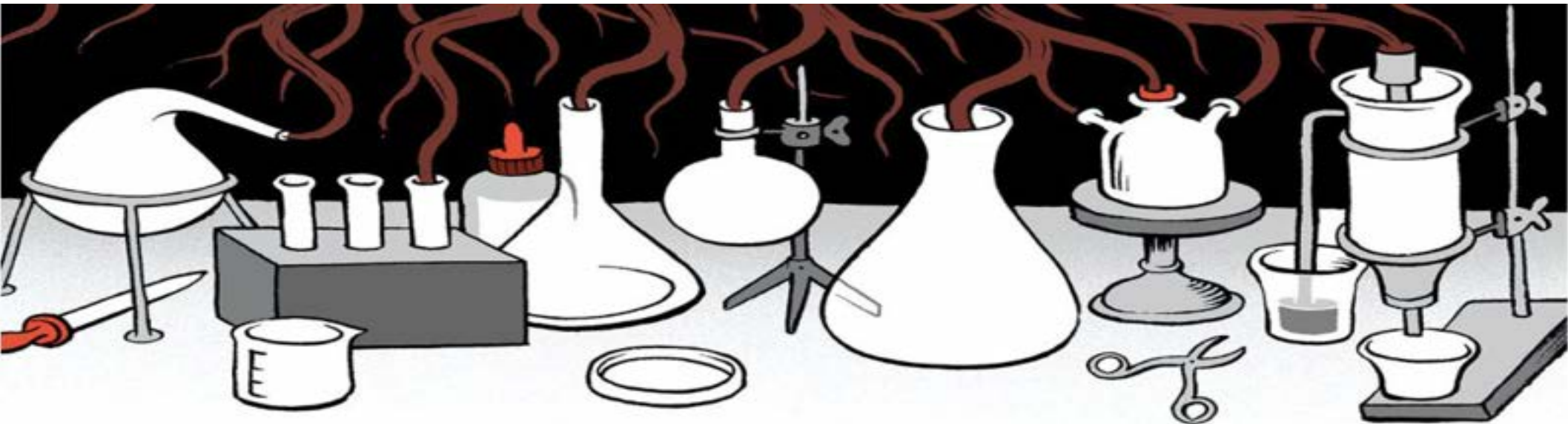
Honors individual & shared experiences

**Values our many ways of knowing & knowledge
production**

STORYTELLING...

Builds strong relationships and solidarities

building power, building a movement



Stories as Anecdotal Evidence:



Two dangers

Type 1 Error

- ❑ Deciding something is true when it's false (can occur if we generalize too much from a single story)
- ❑ We all have the responsibility to recognize the limits of our individual experiences

Type 2 Error

- ❑ Deciding something is false when it's true (can occur if we dismiss the significance of individual stories)
- ❑ We all (especially scientists) need to learn to listen more and be more respectful of the stories people share with us

Worldbuilding from Extraction: the case of Bolivia



Bolivian government overthrown in military coup on November 10, 2019. Extraction of lithium played an important role.



“Abolition requires that we change one thing, which is everything... Abolition is not *absence*, it is *presence*. What the world will become already exists in fragments and pieces, experiments and possibilities.... Abolition is building the future from the present, in all of the ways we can.”

- *Dr. Ruth Wilson Gilmore*



Elon Musk 🌹 🗳️ @elonmusk · 12h

Another government stimulus package is not in the best interests of the people imo

🗨️ 23.6K ↻ 28.6K ❤️ 106K 📤



Armani 🗳️ @historyofarmani · 12h

You know what wasnt in the best interest of people? the U.S. government organizing a coup against Evo Morales in Bolivia so you could obtain the lithium there.

🗨️ 7 ↻ 60 ❤️ 390 📤 📊



Elon Musk 🌹 🗳️
@elonmusk

Replying to @historyofarmani

We will coup whoever we want! Deal with it.

11:32 PM · 7/24/20 · [Twitter for iPhone](#)

Storying Climate Change with STEM students: Iceland and India



Storytelling and Environmental Justice Organizing

“Housewife epidemiology”: prominence of women as caregivers developing expertise and building community by sharing stories

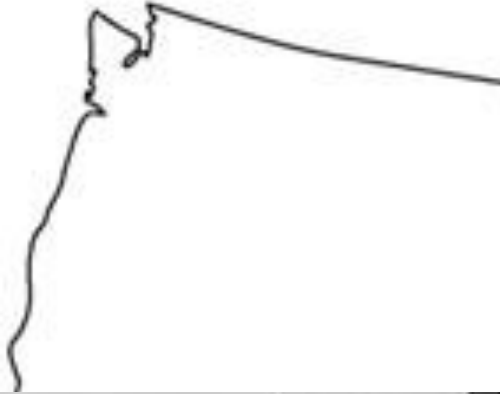
- Baby Tooth Survey / nuclear fallout (1950s-60s)
- Love Canal (1970s)
- Woburn, Mass. (1980s)
- Erin Brokovich / PG&E (1990s)
- Yankee Rowe (Mass.) Nuclear Reactor (1990s)
- Duke Energy coal ash, N.C. (today)
- Flint, Mich. water crisis (today)
- Mold in Springfield (today)

Themes:

- Power hierarchies and trust
- Gendered, racialized and class-ed knowledge and communication
- Community building

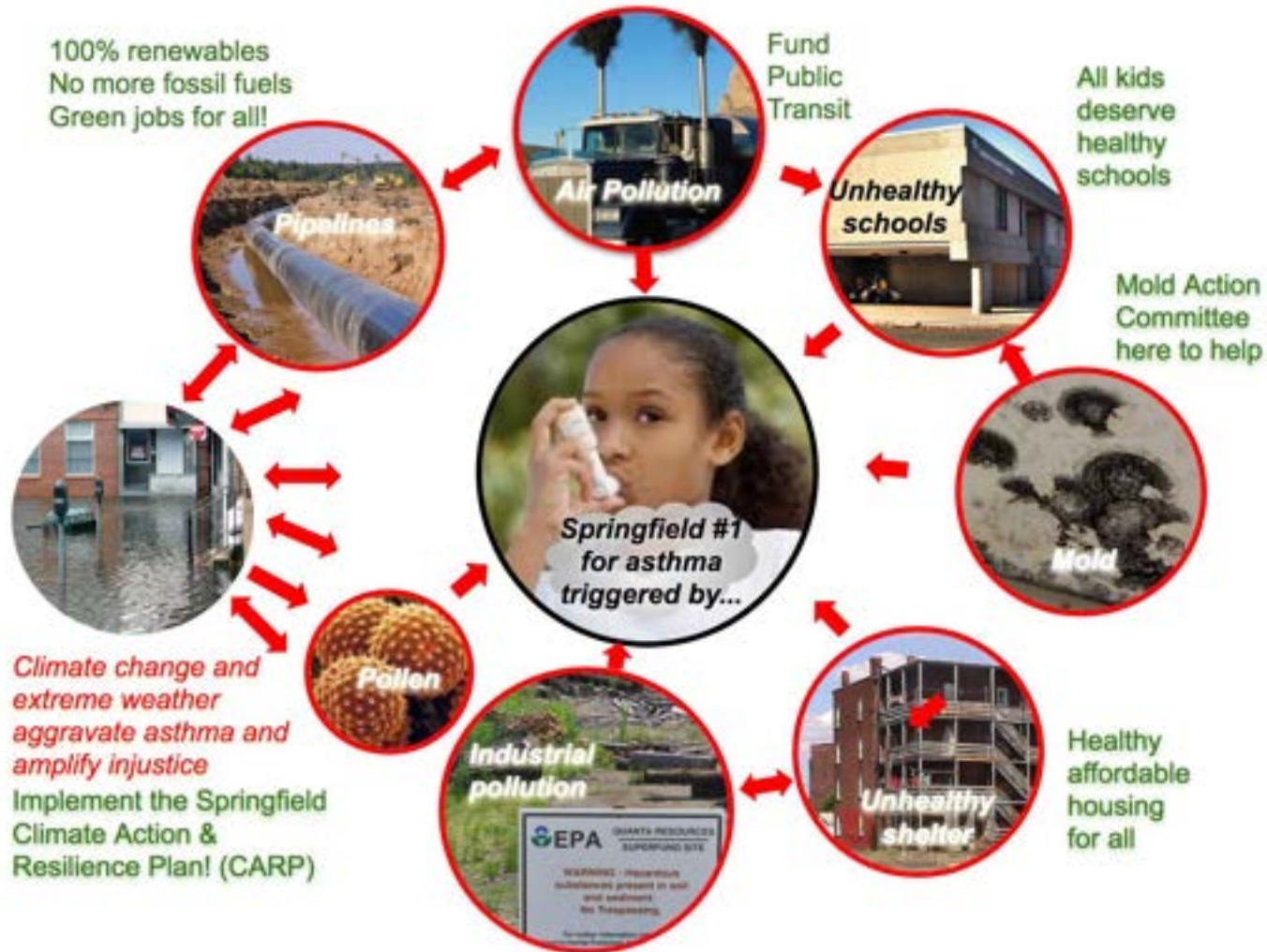


Citizens Awareness Network: Mobilizing Storytelling for Environmental Justice, from Western Mass to the US Southwest



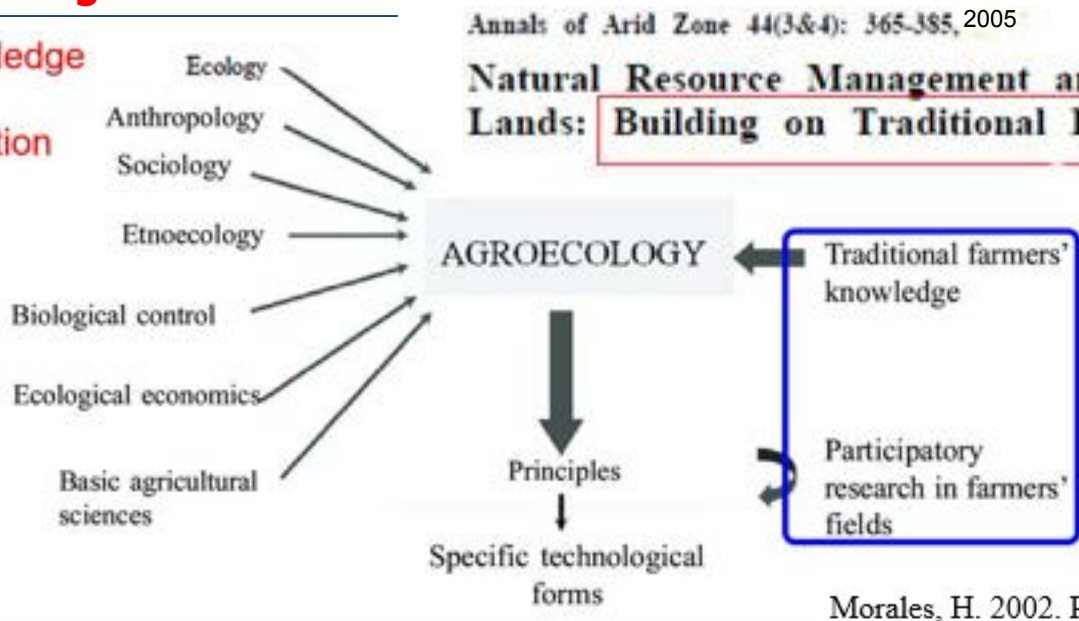
Mold, Health, and Justice

The Mold Lady's Story



Examples from Agriculture

Traditional Knowledge and Real Farmer Participation



Annals of Arid Zone 44(3&4): 365-385, 2005

Natural Resource Management among Small-scale Farmers in Semi-arid Lands: **Building on Traditional Knowledge and Agroecology**

Miguel A. Altieri¹ and Victor M. Toledo²

Abstract: Although risk and uncertainty...

...projects aimed at assisting rainfed resource-poor farmers...many of these efforts use **elements of modern science** but that **build upon traditional knowledge** by including farmers in the development...

Also See:

Morales, H. 2002. Pest management in traditional tropical agroecosystems: Lessons for pest prevention research and extension. *Integrated Pest Management Reviews* 7: 145-163.

Pesticide Action and/or Science



McFarland, CA



Los Angeles Times Cancer mystery still plagues California farm town McFarland

1997
L.A. child face disfigurement scenario deep end, drowning

Cancer clusters in McFarland, Rosamond in report to go before Senate panel 2011

2011
BMC Cancer. 2017; 17: 343. Published online 2017 May 19. doi: 10.1186/s12885-017-3346-x

2017
Cancer risks in a population-based study of 70,570 agricultural workers: results from the Canadian census health and Environment cohort (CanCHEC)



On July 16, 1988, Cesar Chavez began a water-only fast to focus attention on the reckless use of deadly pesticides.

The Wrath of Grapes film 1986, 88

Birth defects... cancer cluster...

Precautionary Principle...?!

ENGINEERING MINDSET

Joke 1: Real Engineers' politics run towards acquiring a parking space with their name on it and an office with a window.

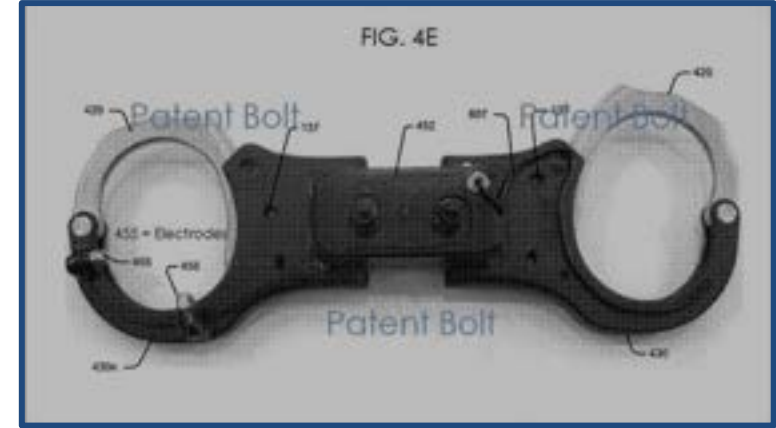


Joke 2: What's the difference between Mechanical Engineers and Civil Engineers?

→ Mechanical Engineers build bombs and Civil Engineers build targets.

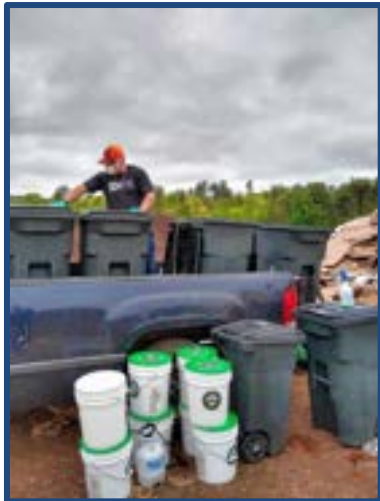


ENGINEERING SOCIAL CONTROL



versus

PROMOTING DIGNITY & VALUE



Breakout Room Discussions



Small group storytelling:

- STEP 1: please assign a **FACILITATOR, TIME-KEEPER, NOTE-TAKER, REPORTER**
- STEP 2: take 2 minutes total to introduce yourselves to each other
- STEP 3: choose a science justice topic that resonates with your group (from a story we've already heard today, or completely new!)
- STEP 4: share your own story that connects to this topic. Aim for 3 minutes per person to share.
- STEP 5: discuss how these stories can inform and impact the way we problem solve and our scientific method.



Report back





STORYTELLING



operates at every stage of the scientific process:



Starting point for research

sharing our stories is a way of identifying and communicating the problems that need to be addressed





STORYTELLING



operates at every stage of the scientific process:



Organizing of research team/community

How are research teams usually organized? (hierarchical, “experts”-only)

How can we use storytelling to create anti-hierarchical research teams built on community?

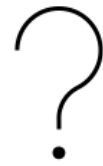
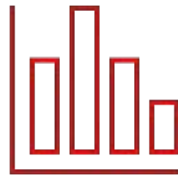
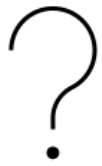
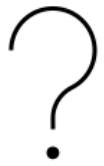




STORYTELLING



operates at every stage of the scientific process:



Data gathering

What is “data”?

How can we reimagine “data” to be less reductive and more inclusive?





STORYTELLING



operates at every stage of the scientific process:



Communicating results through powerful examples

How can we use storytelling to make scientific results more meaningful to people?

SCIENCE

FOR

THE

PEOPLE



Thank yous!!!

best,

Tatiana Cheeks

Andrew Cunningham

Mia Fuentes Deonate

Stephen Fernandez

Emma Harnisch

Daniel Ko

Danielle Larrabee

Kimberly Medeiros

Adrienne Saums

Sigrid Schmalzer

Ingrid Shockey

Brian Schultz

Seth Tuler

Lyn Watts