Willem de Kooning Academie

From reductionist to Biophilia:

How can framing help shift our perspective to situated knowledge

TD-2.2 Transformation Design Theory: Symbiocene

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March 26, 2024

Abstract

In this work, we delve into the concept of the Symbiocene, proposed by Albrecht and Van Horn [2016], as a forthcoming epoch distinguished by mutualistic relationships among species, contrasting sharply with the exploitative interactions typified in the Anthropocene. This paper explores the fundamental principles of mutual benefit and symbiosis beyond human-centric interactions, advocating for a paradigm shift to holistic and integrated understandings of species interrelations. We examine the prevalent gaps between our current anthropocentric perspective and the envisioned Symbiocene, highlighting the inadequacies of reductionist approaches. By endorsing Haraway [1997] situated knowledges, we argue for a more empathetic and interconnected appreciation of Biophilia communities. The framing effect, as discussed, is pivotal in transforming public attitudes toward more symbiotic relationships, facilitated by an innovative educational approach using a 'Plants' LinkedIn' platform to foster situated knowledge and empathy towards non-human species.

1 What does Symbiocene Mean

We live in the Anthropocene which is full of manipulation on non-human species. Albrecht and Van Horn [2016] proposes symbiocene as a next epoch of new abnormal, where species live together for mutual benefit. To live it as the basis of the next period of Earth's history, we have to better understand the exact meaning and principals of mutual benefit, and what could be the possible forms of symbiosis with non-human entities. Nørgaard et al. [2013] has distilled the definition of animal welfare down to two seemingly simple questions: Are animals healthy? Do they have what they want? Thus the premise of discussion on specie welfare, which serves as the basis of understanding Symbiocene, should be first clarifying current urgency encountered by whole species, then coming up with customized principals designed by hierarchical mechanism to meet every specie's welfare for they have different features and in different situations.

2 Where We Are

However there still exists a huge gap between Symbiocene and our current situation. We tend to observe nature from an objective and scientific perspective, which is important for general education. However, the limited point of views are far not enough. And what's worse, it would easily lead us from a reductionist bias[Red, 2024], which means we tend to understand the integrity by tear things apart into datafied and labelled molecules. Yet can we really understand species like Arabidopsis(a model organism for scientific research) by quantitatively describing their physiological data(e.g., rapid growth cycle, small genome size, ease of genetic manipulation, efficient seed production etc.), controlling environmental factors(e.g., pollination, temperature, humidity and biotic stress), by monitoring of storage

conditions for genetic studies and long-term experiments(e.g., firmness, weight, timing and temperature), by classifying them with labels of genetic variants like wild type, mutant type?

3 Situated Knowledge as an Approach for Biophilia

In Haraway [1997], "situated knowledges" is concept to understand that all knowledge comes from positional perspectives. Giving by an embodied experience and awareness, we will become answerable for what we learn how to see" and accountable for the world around us, which is critical to the scenario of Symbiocene featured as Biophilia, where everyone has the love of living together rather than pulling things apart and isolating particularities from a reductionist point of view. To put it in a concrete context, we now live in a datafied world with optimized utility, commodified species like tomatoes being measured by quantifiable attributes data in the pursuit of controlled environmental factors, monitored logistics and storage.[Lee et al., 2024b] LinkedIn is another typical example of extreme datafying and labelling whereas this time the subject is our human self.NNN.

4 Framing Helps Transform Public Attitudes

I firmly believe the attitude we hold and the way we treat non-human entities will eventually react on ourselves, **?** is a case worth considering. And the potential crisis quiet aligns with Karl Marx's theory of alienation, describing the estrangement of people from their humanity[Mar, 2024]. The core of this transformation lies in the public education of situated knowledge, which is further interpreted as phenomena data by Lee et al. [2024a]. Framing effect is commonly used for manipulating one's opinion by series of designed storytelling, which can find indications in commercial strategies[Shan et al., 2020]. To take advantage of framing effect, the author designed series of quiz with intention, encouraging the discovery of situated knowledge of non-human specie and here we take Arabidopsis as an example for testing and evaluating this approach in public education rather than commercial tricks.

5 Plants' LinkedIn Platform Demonstrates Instinctive Observation Collecting from Twitter as a Prototype

The author scraped 200 records as shown in 1 of actual interesting news about Arabidopsis on Twitter, and selected several typical ones which represent the public' instinctive observation and perception of Arabidopsis, quite different from its usual storytelling framing in scientific research. 2 is the prototype of this PlantIn platform developed by react.

Apart from the information flow of tweets collected, the author also designed a quiz mechanism mimicing the user feedback component of LinkedIn, expecting a positive implication of the situated knowledge regarding Arabidopsis with a interesting storytelling framing as is shown in 3. For detail about PlantIn, visit https://ifisyuki.github.io/plantin/

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  {
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Figure 1: Dataset of Intersting News about Arabidopsis on Twitter

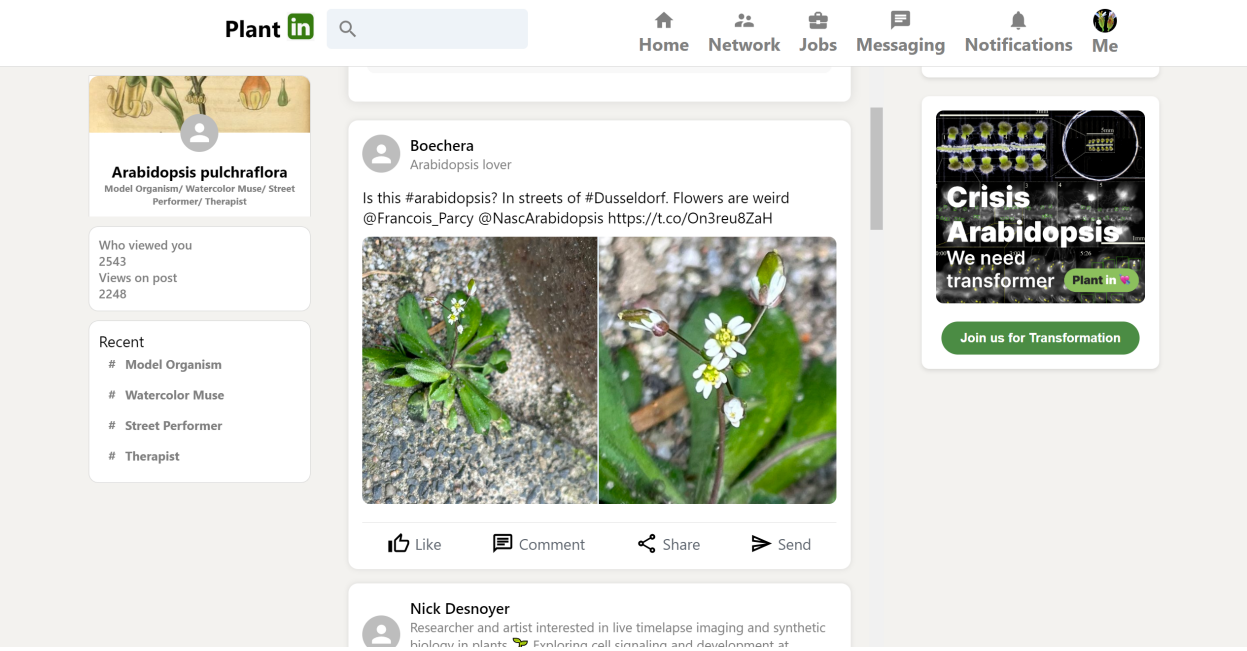

Figure 2: PlantIn Interface

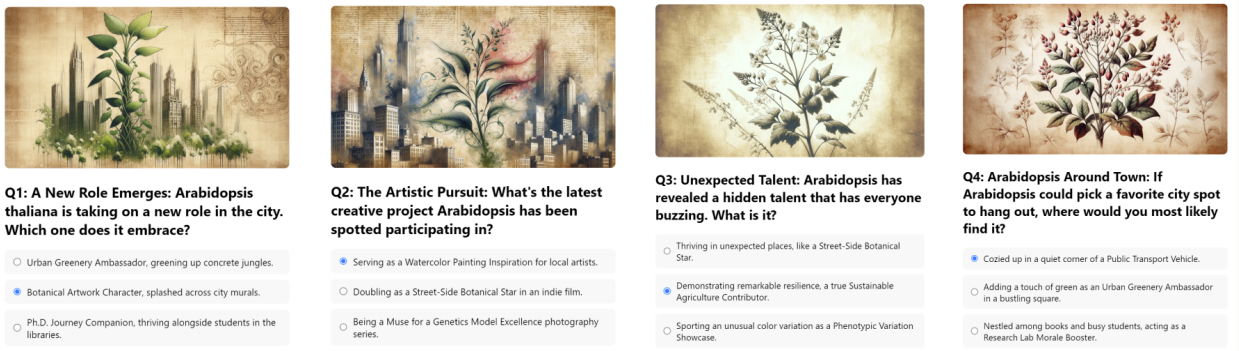

Figure 3: PlantIn Interface

6 Conclusion

In our exploration of the transition from the Anthropocene to the Symbiocene, we have navigated a landscape that necessitates profound shifts in our perception and interaction with the natural world. The Symbiocene presents a future vision where mutual benefit and symbiotic relationships are at the core of our existence, starkly contrasting with the exploitative tendencies of the Anthropocene. This new epoch advocates for an integrative approach that recognizes and values the interconnectedness of all life forms.

Our journey toward the Symbiocene requires moving beyond reductionist and anthropocentric viewpoints that simplify and objectify nature, undermining its intrinsic value and complexity. Embracing the concept of situated knowledge, we realize the importance of perspective and empathetic engagement with our surrounding world. This paradigm shift extends beyond academia, influencing our educational practices, communication, and environmental decision-making.

We've emphasized the critical role of framing in influencing public consciousness and attitudes. Leveraging educational tools and platforms can foster a culture that appreciates and promotes an understanding of our interconnectedness with nature, deepening human and non-human relationships.

Standing at the cusp of the Symbiocene, it is crucial for us to collectively re-envision and rebuild our relationships with the diverse life forms on our planet. Cultivating a biophilic ethos, rooted in respect, empathy, and interdependence, can set the foundation for a future where symbiosis and mutual benefit are not mere ideals but the basis of our coexistence.

In conclusion, transitioning to the Symbiocene transcends ecological necessity; it embodies a moral and existential call to redefine our role in the world. Rather than dominators or exploiters, we are urged to become mindful stewards, woven into the fabric of a vibrant, interconnected web of life. This path is fraught with complexities and challenges, yet it holds the promise of transformative growth and renewal, steering us toward a more sustainable, equitable, and thriving existence for all beings.

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