PEIRCEAN SEMIOTIC ANALYSIS OF A UNITED NATIONS POSTER FOR CLIMATE CHANGE AWARENESS

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1 Climate Change and Graphic Design

Climate change presents one of the most urgent challenges of our time, demanding effective communication strategies to drive awareness and action. Graphic design, as a visual and persuasive medium, plays a crucial role in shaping public perception and influencing behavior toward sustainable practices. However, existing design conventions may inadvertently hinder the effectiveness of climate change messaging. Traditional approaches often prioritize aesthetics over clarity or rely on fear-based imagery that can lead to disengagement rather than motivation (UNSW, 2019).

Scholarly discussions highlight the potential of visual communication to bridge the gap between scientific data and public understanding. Research suggests that well-crafted graphic design can enhance cognitive processing, making complex climate data more accessible and emotionally resonant (Stanforth, 2021). Moreover, studies in educational design reinforce the idea that strategic visual elements can improve message retention and engagement, particularly when aligned with user-centered principles (ERIC, 2023).

To fully realize the potential of graphic design in climate change awareness, it is essential to consider a semiotic perspective. Charles Sanders Peirce's triadic model of semiosis—comprising the sign, the object, and the interpretant—provides a valuable framework for analyzing how climate-related visuals function as meaning-making tools. By understanding how individuals interpret signs within cultural and contextual frameworks, designers can create more effective visual narratives that foster climate literacy and inspire action. This paper explores the

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intersection of graphic design, climate communication, and Peircean semiotics to propose a more impactful approach to environmental awareness campaigns.

2 Semiotic Analysis of United Nations Poster

The image selected for the semiotic analysis is depicted in Figure 1. United Nations has a 'Call for Action' section inside the website which urges visitors to spread the word, making sure climate change awareness is widely known.

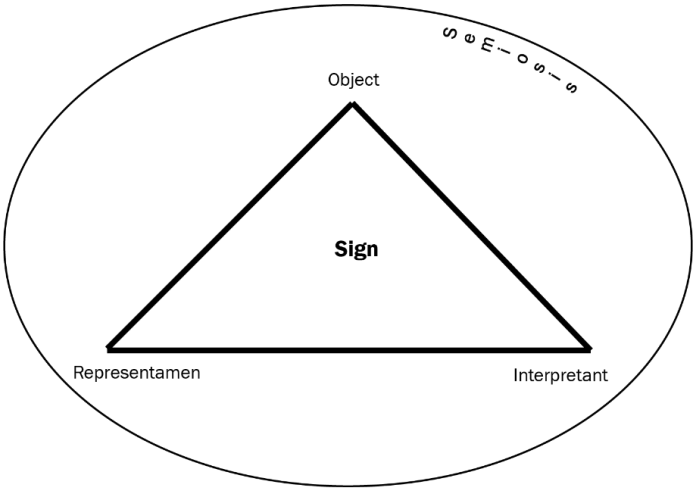
Figure 1 – United Nations poster for Climate Change Awareness



Source: United Nations Climate Action Poster, 2025. (Available at: https://www.un.org/en/climatechange/graphics)

Charles Sanders Peirce's triadic model of semiosis consists of three components, as illustrated by Figure 2:

Figure 2 – Charles Peirce's triadic model of semiosis



Source: Peirce; Hoopes, 2006.

1. **Sign (Representamen)** – The form that the sign takes (e.g., an image, word, or symbol).
2. **Object** – The actual concept or entity that the sign refers to.
3. **Interpretant** – The meaning that the audience derives from the sign based on their cultural and cognitive context.

Peirce addressed to the triadic model as semiosis, not semiotic process, as depicted in figure 2. The analysis will be conducted based on this concept.

2.1 United Nations Poster Semiosis Analysis

Representamen

The image presents a collage-style composition featuring cubes with different colors and patterns, symbolizing various environmental and technological themes. Elements include animals (a deer, a bird, a whale), renewable energy sources (solar panels, wind turbines), sustainable transportation (bicycles, an electric car), recycling symbols, and natural elements (water, plants).

The bold hashtag, “ItsPossible”, serves as a central textual element, emphasizing a call to action and optimism regarding sustainability.

Objects

The animals and natural elements represent biodiversity and the environment, which are directly impacted by human activities. Green energy sources (solar panels, wind turbines) and electric car refer to sustainable technological

advancements. The recycling cube suggests waste management and circular economy principles. The cubes themselves, arranged in an abstract manner, could symbolize the building blocks of a sustainable future.

Interpretants

In Peirce's semiotic model, the interpretant is the meaning derived by the audience when they engage with a sign. In the case of this image, multiple layers of interpretation emerge, shaping the viewer's emotional and cognitive response (O'Neill, S.; Nicholson-Cole, S., 2009). Since the meaning is considered the most important part of the semiosis process when climate change awareness comes into place, it will face an in-depth discussion.

A. Emotional and Cognitive Engagement

The image employs a collage-style composition, combining cut-out photography with geometric elements. This approach creates a sense of dynamism and possibility, reinforcing the message that sustainable solutions are within reach. Unlike traditional environmental campaigns that often focus on catastrophes or crisis, this visual language leans into optimism, which can be more effective in mobilizing action. The bright yellow background contrasts with the black, green, red, and white cubes, drawing immediate attention. Yellow is often associated with energy, positivity, and change, setting an emotional tone that aligns with the hashtag's message (Heller, 2018).

The use of black-and-white photographic elements embedded in colored cubes suggests a contrast between reality and possibility, implying that design and technology can shape a better future. The cubes as building blocks communicate an idea of constructing solutions, reinforcing the interpretant that change is a structured process rather than an abstract hope (Lupton, 2017).

B. Semiotic Function of the Hashtag and Call to Action

The hashtag #ItsPossible serves as a linguistic sign, providing a direct interpretant that ties the visual elements together. It acts as a call to action, reinforcing the message that sustainability is achievable. The placement of the hashtag in the center, further emphasizes urgency and importance (Foss, 2018).

Still based on consideration from Foss (2018), the lack of specificity in the phrase "It's Possible" allows for multiple interpretations, making it adaptable to different audiences and contexts. This openness encourages personal reflection, as viewers may connect the message to their own actions or responsibilities.

By employing a social media-oriented format (a hashtag), the design invites interaction and digital engagement, increasing the likelihood of message dissemination.

C. Reinforcement Through Symbolism and Cultural Framing

The interpretant is also shaped by how cultural knowledge influences sign perception. Different elements evoke specific meanings based on the viewer's background. Solar panels and wind turbines depict global symbols of renewable energy; the recycling cube is universally associated with sustainable waste management. The animals (deer, bird, whale) in the picture represent biodiversity, reinforcing the need for conservation. And lastly, the hand holding a plant poses a strong indexical sign, directly linking human action to environmental growth and renewal (UNSW, 2019).

This interplay of symbols forms a narrative of interconnectedness: sustainable technology, biodiversity, and human effort must work together. This reinforces a constructivist message, suggesting that positive change depends on individual and collective actions. The use of geometric abstraction combined with organic forms suggests a balance between nature and human-made systems. The deliberate fragmentation of visuals into cubes implies modularity, a metaphor for progressive change and systematic action (Ware, 2020).

Following Ware's (2020) thoughts, the hierarchy of elements directs attention toward key ideas: hashtag (central and bold) refers to the core message and call to action. Green energy and sustainable mobility are practical solutions. Biodiversity and environmental imagery mean stakes and motivations for action. The final interpretant is mobilization through optimism, meaning empowerment and actionability. Rather than presenting climate change as crisis, the image constructs a semiotic message that suggests action: 1) we can build a better future (cubes as building blocks), 2) we are part of the solution (hand holding the plant) and 3) there are tangible actions we can take now (renewable energy, eco-friendly transport, recycling).

This ties back to the function of graphic design as a tool for persuasion, proposed by Stanforth (2021) in the introduction of this paper. Through visual composition, color psychology, symbolic layering, and linguistic reinforcement, the design guides interpretation toward an optimistic, action-oriented mindset. In this

way, it transcends mere awareness, urging audiences to believe in, engage with, and contribute to sustainable change.

3 Final Considerations

Using Peirce's triadic model, we see how this image constructs meaning through a dynamic relationship between visual signs, their environmental and technological references, and the audience's interpretation. The signs are carefully chosen to evoke positive emotions and motivation, rather than fear or despair, making it a strategic design for climate awareness campaigns. The semiotic interplay effectively communicates that a sustainable future is achievable through conscious choices and innovation. This semiotic structuring of awareness is critical in climate emergencies, where overwhelming, fear-driven messages often lead to public disengagement (UNSW, 2019). The image instead demonstrates how a balanced interpretant strategy—combining urgency with agency—can enhance environmental communication effectiveness. Graphic design's ability to structure meaning, emotion, and actionability makes it a vital tool for climate emergency awareness.

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