

## The AMNH, Institutional Evolution, and The Uncanny Valley

By Jillian Duke

“As healthy persons, we are represented at the crest of the second peak in Figure 2 (moving). Then when we die, we are, of course, unable to move; the body goes cold, and the face becomes pale. Therefore, our death can be regarded as a movement from the second peak (moving) to the bottom of the uncanny valley (still), as indicated by the arrow's path in Figure 2. We might be glad this arrow leads down into the still valley of the corpse and not the valley animated by the living dead!

I think this descent explains the secret lying deep beneath the uncanny valley. Why were we equipped with this eerie sensation? Is it essential for human beings? I have not yet considered these questions deeply, but I have no doubt it is an integral part of our instinct for self-preservation.”

*The Uncanny Valley* by Masahiro Mori. 1970.



Considering the developmental scope of natural history museums it's worthy to note that, today, the American Museum of Natural History represents several critical stages of said institutional evolution. While there are ethical and educational developments that have radically changed the model of the natural history museum, the overall design of AMNH's exhibits seem to swing between progressive and antiquated behavior. Especially where astronomy and ecology are concerned, exhibits have progressed via advanced temporary displays— such as the Davis Family Butterfly Vivarium —and in their public engagement models. However, advancements in some exhibits are in brutal contrast with neighboring hallways.

An important element of the butterfly vivarium, and one that Friedman touches on in *The Evolution of the Science Museum*, is the concept of 'citizen science'. For example, not only does the exhibit include information about environmental impacts on butterfly species, but it also provides visitors with instructive direct action for growing a garden that supports butterfly conservation. Prior to looking at the project details, I expected an elementary-type project, one typically tacked on to the benefit of young children but disengaging for any other age group. I was

pleasantly surprised to find a thorough and scientific description of the conditions needed for gardening, as well as a list of nectar plants and the corresponding butterflies who consume them. This type of media takes the viewer's interaction out of the museum and into the greater scientific community— fundamentally supporting public engagement with ongoing ecological issues. This description from 'Natural History and Anthropology Museums' in *Museums in Motion* expands on the impact of 'citizen science':

“The newish movement . . . enables the public to gather useful data for researchers—as in counting or identifying bees, birds, and fish in one's region—while also giving citizens—in the form of schoolchildren and adults—the ability to contribute to something greater.” (Alexander, Alexander, and Decker 2017, 105.)

Further, the practice of treating the public with intellectual respect— i.e. acknowledging that they are capable of understanding scientific complexities —contrasts with the 18<sup>th</sup> century museum's academic arrogance, noted by Paula Findlen:

“As museums became more of a public phenomenon, learned practitioners took greater aims to differentiate themselves from the unlearned audience who exhibited only curiosity and not virtuosity. . .” (Alexander, Alexander, and Decker 2017, 75.)



Turning my attention to the AMNH's anthropological practices, the contrast can be quite stark. While there is commendable effort in the complete renovation of the “Northwest Coast Hall” in partnership with Indigenous community members, the “Hall of African Peoples” (1968 debut) and “Hall of Asian Peoples” (1980 debut) continue to display human dioramas (Satia 2024). Further, I would like to note the impactful dynamic of an institution that conjuncts dioramas from two categories: taxidermy animals and mannequins depicting people of ethnic backgrounds outside the United States.

In *The Breathless Zoo: Taxidermy and the Cultures of Longing*, author Rachel Poliquin presents a theory on taxidermy and its psychological effect on the museum's public— death becomes too pervasive for a viewer to take in the intended educational elements. I don't think it impossible for a viewer to ponder the following: what was the specimen's lived experience, did they die a natural death or were they hunted, how did they come to be here, and why has it been staged like this? It's unknown to me if these questions are answered within the AMNH exhibits, despite the viewer's potential interaction described by Poliquin:

“This organic wholeness despite death endows taxidermy with its eeriness, its uncanniness.” (Poliquin 2012, 114.)

The abstract and emotional response elicited from taxidermy is one I would apply to depictions of people as well, despite the material differences. Although a viewer understands that humans displayed in the AMNH's dioramas are mannequins, the objectification (or even

puppeteering) is still applicable. Namely, an exhibit review by Angela Saini for *Undark* connects the West's historical perception of white superiority with the museum's decision to represent foreign peoples in early-man contexts— a manifestation of racial degradation. Further, at the root of this design is a treatment of human likeness that mirrors the intellectual regard for education via dead animals (Saini 2022).

I wonder if the emotional responses described by Poliquin are likewise elicited, if not heightened by, the viewer's understanding that what is on display is their own species. In Masahiro Mori's essay titled *The Uncanny Valley* (1970), the robotics professor describes the challenges that prosthetic engineers face when designing human likeness, and the psychological results of failing to do so. Similar to Poliquin's description of 'realizing death', a review of Mori's essay summarizes the effects of concealing inanimacy in the human-robotic form:

“. . . he hypothesized that a person's response to a humanlike robot would abruptly shift from empathy to revulsion as it approached, but failed to attain, a lifelike appearance. This descent into eeriness is known as the uncanny valley.”

(Mori, MacDorman, and Kageki 2012, 98)

Ultimately, if a robotics engineer's data indicates that a person may have an adverse reaction to realism in humanoid inanimates, what does that suggest for the public's experience with AMNH's anthropological dioramas? What are the repercussions of associating uncanny dissonance with representations of human beings?

## References

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