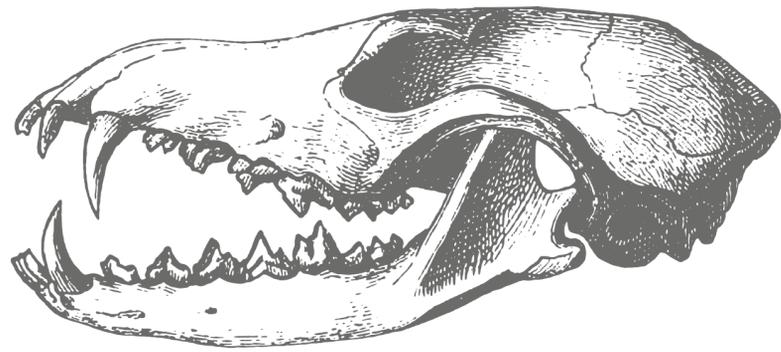


Hard Questions and Biofact Collections:

An Educator's Guide to Addressing Sensitive Topics that Arise with Biofact Education Programming at Woodland Park Zoo



FRAMING



Biofacts are bones, pelts, shells, and other remains from extant species and are often used as an educational tool in zoos like Woodland Park. Zoo docents, many of whom are volunteers, use biofacts to engage with visitors. Interactions involving biofacts can be one of the earliest exposures to death and dying for young learners, and can lead to questions asked in innocent curiosity such as “How did the animal die?” and “Why did you kill the animal?” These situations can be uncomfortable for volunteer docents who would benefit from specific resources and training for these situations.

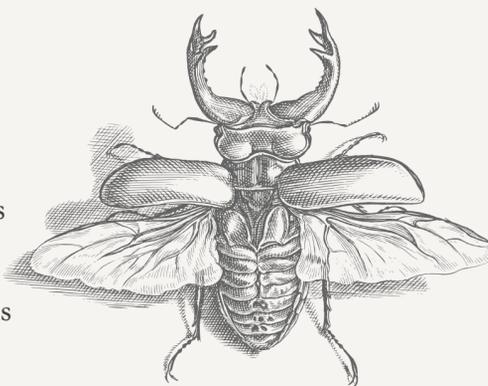
IMPLICATIONS

The application of inquiry-based learning strategies is new to zoo and aquarium education. These strategies have a history of enhancing interaction and building stronger connections with learners. Traditionally, scientific institutions have prioritized dissemination of fact, however this guide offers resources for training facilitators of interaction to support and guide learning in a more memorable and emotionally effective way. These best practices for interaction can be used to encourage empathy for animals and further conservation action.



PURPOSE

The purpose of this thesis is to create a guide that supports biofact interpretation for Woodland Park Zoo's docent volunteers and that supports engaging conversations with young learners. The guide is informed by multiple inquiry-based learning strategies and frameworks with the objective of developing empathy for animals.



One of the frameworks is Visual Thinking Strategies in Science (VTSS), process of framing interactions and asking thoughtful guiding questions to encourage hands-on exploration and the gathering of evidence to propose plausible hypotheses. This guide was designed to be accessible for docents with a varying level of familiarity and experience. The tools described in this guide can frame conversations that emerge from these questions to support docent's confidence and ability to inspire empathy for animals in young learners.

PROCESS

Research: Understand previous applications of inquiry-based learning principles, as well as complementary material, including WPZ Empathy Wheel for Audience Engagement, VTSS, and SEL

Recruitment: A cohort of seven Woodland Park Zoo docents volunteered to participate in the development of the guide and provided feedback through the sessions detailed below.

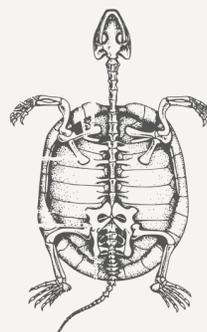
Activities:

- Front-end evaluation: assess gaps in existing materials and practices through the docents' eyes
- Workshop: explore and practice tools
- Implementation: apply tools to docent work
- Discussion: evaluate and finalize guide based on docent feedback



REFLECTIONS

Docents described increased confidence in their ability to respond to difficult questions around the topic of death and biofacts, and focused interactions around building empathy for animals, both alive and deceased. Multiple docents requested further learning opportunities involving the application of these tools in a broader variety of environments beyond the typical small-scale group interactions that are typical of current interpretation experiences.



ACKNOWLEDGEMENTS

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REFERENCES

“Death and Dying at the Zoo,” S.M. Benbow, 2004
Woodland Park Zoo's Empathy Wheel for Audience Engagement. Seattle, WA, 2024
Yenawine, Philip. Visual Thinking Strategies: Using Art to Deepen Learning Across School Disciplines. Cambridge, MA: Harvard Education Press, 2018.

