

The New Zoos: Science, Media and Culture

Summary of Findings, ESRC End of Grant Report

Award No. L144250052 Date: 23 November 2005

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The *New Zoos: Science, Media & Culture* project engaged in a two-year comparative case study of the remodelling of science and environmental communication at two zoos: the Bristol Zoo Gardens, and the Paignton Zoo Environmental Park. The zoos were chosen thanks to the fact that both have participated in the zoological fields' trend towards environmental education, and new forms of display; in particular, what are widely described as 'naturalistic' forms of exhibiting wild animals.

The project employed an interdisciplinary approach to investigate the changes associated with this trend. In particular, it investigated the zoos' educational strategies, and their characteristic ways of structuring the observational process. It also investigated visitor responses to these aspects by means of ethnographic research with 35 family groups, and a survey of some 450 zoo member households. Both aspects were in turn studied from the perspective of their interaction with dynamics of mass communication, or what the project described as 'transmediation'.

The analysis of the zoo displays revealed that the zoological fields' use of the notion of 'naturalistic' displays is imprecise insofar as both zoos' displays are structured by a combination of four different modalities of observation, each with its own form and criteria of naturalism. The four modes are: 1) Modes of observation premised on an *iconic-environmental naturalism*, in which the visitor-observer is invited to observe the display in predominantly visual terms: the display simulates, or appears to simulate some visual aspect of the animal's original geography. 2) Modes of observation premised on *symbolic-scientific naturalism*, in which the visitor-observer is invited to use explanatory signs to engage in a process of observation that explains how and why the specimen on display is a likeness not just of itself, but of its *species*. 3) Modes of observation premised on an *indexical-multisensual naturalism*, in which the visitor-observer is invited to engage in action-reaction, stimulus-response forms in animal encounters, or in a variety of multimediated activities involving the senses of touch, smell, or hearing. 4) Modes of observation premised on an *anthropomorphic-popular naturalism*: in which the visitor-observer is invited to engage in what the project describes as the *circuit of anthropomorphism and cosmomorphism*: the animals are tacitly 'humanized', even as the visitors are invited to identify with the animals, and thereby to 'animalize' themselves (in animal shows, but also in references to animal 'curiosities').

The analysis reveals significant discursive discontinuities between some of these modalities, and raised the question of the manner in which each zoo's educational strategies might articulate these discontinuities. The project further found that whilst one of these modalities of observation/naturalism was likely to be predominant in any given display, many displays might well combine all four modes. Whereas a majority of the exhibits at the Paignton Zoo were more strongly structured along the lines of an iconic-environmental naturalism, the Bristol Zoo's displays were more strongly structured along the lines of an indexical-multisensual naturalism.

The project also revealed that there was no automatic continuity between the predominant form of observation and naturalism on the level of display, and on the level of its reception by different visitors. The research with the 35 family groups, and the survey of both zoos' member households revealed that, on the level of explicit discourse about the displays, adult visitors of all gender, age, self-ascribed class, and occupational groups favoured features associated with an iconic-environmental naturalism. For example, visitors suggested it was very important to have 'animal enclosures that resemble natural habitats', to 'use trees and plants inside enclosures to mimic the animal's original environment', to have 'big enclosures', and to 'create enclosures in which animals can breed'. The least important aspects were those of the mode of observation associated with anthropomorphic-popular naturalism. Items such as 'Coaching animals to perform tricks', 'Having funfair rides such as dodgems', or 'Having animal shows' were consistently given the lowest scores by most respondents of all ages, self-ascribed classes, gender, and occupations.

However, ethnographic research revealed practices that often contradicted the results of the survey, and the visitors' verbal accounts of their own preferences. Indeed, actual visiting practice suggested that a visit to either of the two zoos involved a concatenation of the different modes of observation, with most visitors engaging actively in all of the different modes at different stages of their visit. The exact configuration of modes was contingent on a variety of factors ranging from the display itself, the state of the animals in a given display, to social variables such as age and class.

Two findings may be highlighted on this level of analysis: first, during at least part of their visits, most visitors engaged in their own nonformal pedagogic practices in ways that were most strongly structured by an anthropomorphic-popular mode of observation and its concomitant naturalism. For instance, at both zoos visitor observations of lions tended to be articulated in terms of dynamics that sought to identify the 'Mummy Lion' and the 'Daddy Lion', or that compared the sleeping lions to the habits of the tabby at home. We can say in this sense that parents and children engaged in anthropomorphic projections that paradoxically 'naturalized' the animals' otherness by relating them to 'home'; at least for the youngest children,

'home' was 'the natural', and their observations thereby frequently began, and concluded on this premise.

Second, even in many instances in which parents and children did engage with the zoos' signs and with their discourse of natural history, especially the children of age five and under were likely to engage with them on the basis of indexical-multisensual modes of observation. Where adults stood, read and watched, the children pressed, climbed, pushed, and engaged in far more explicitly corporeal forms of observation. The best metaphor of this process could be found in the Paignton Zoo, where many children actually used the signs as a kind of lever with which to pull themselves up onto the fences in order to obtain a better vantage point. At both zoos, such indexical-multisensual forms of observation only led to an engagement with a scientific mode of observation if the parents became informal educators, and/or if something in the signs redirected the children's attention and led them to ask questions.

The analysis of the relation between the modes of observation and the mass media also produced significant results. The project found that films such as *Harry Potter* and *Finding Nemo* tended to lead the children to engage more strongly with the zoos' classification of the animals, and strongly shaped their patterns of attention in some of the displays. For example, after *Harry Potter and the Chamber of Secrets*, many children were surprised to find that plumed basilisks at both zoos were not giant snakes. After *Finding Nemo*, children began to attend to, and discuss the features of the clownfish at the Bristol Zoo's Aquarium.

The medium of television also played a significant, if somewhat more subtle role. During the first ethnographic visits, it became apparent that natural history documentaries provided many families with a kind of degree zero naturalism against which to measure various aspects of the displays. Several children noted that some of the displays were 'missing' the kinds of events they'd seen on television. For example, the Paignton Zoo zebra enclosure 'ought to have a few lions in it'. Moreover, the constant kinesis associated with moving images of animals on television was likely to be a significant motivation in dynamics in which children questioned repeatedly whether animals were 'pretend animals' when they failed to move whilst being observed.

In conclusion, it is clear from the results that at least some families do capitalize on the opportunities provided by both zoos for informal pedagogic relations. It is, however, also clear that there is no necessary discursive continuity between the different modes of observation, and that where discontinuities exist they may give rise of contradictions and ambiguities that render more complex any educational process. The same is also true on the level of visitor responses to the displays; far from involving a simple, and uniform preference for iconic-environmental naturalism, the project revealed that visitors circulate amongst the different modes of observation and in so doing may transform them by means of their own

nonformal pedagogies, but at times also by way of the projection of modes of observation derived from the mass-media.