

ANDREW ACKERMAN

MR. ACKERMAN: Good morning. Thank you very much for inviting me to speak to you today about an exciting project that opened in New York in May. Thank you to the NEH for its support of Gods, Myths, and Mortals at the Children's Museum of Manhattan – a 4,000 square foot exhibition about ancient Greece. The goals of the exhibition are to connect families to the origins of many tenets of western civilization, to understand how we investigate the past, and to understand how Hellenic culture is all around us today.

This exhibition combines original artifacts, cutting edge technology and opportunities for children and adults to explore through inquiry-based activities. The easy challenge in creating exhibitions is to convey information. The difficult challenge is to convey more complex themes in order to transmit a deeper meaning and deeper understanding for the public.

We conducted extensive research with children, nine to twelve years old, prior to the opening of the exhibition. What the children told us goes against conventional wisdom: they wanted more content; they wanted to be challenged by ideas.

And most important, they wanted to see themselves as part of the story, specifically, for example, you'll see, they wanted to become Odysseus, they wanted to go on the journey, they wanted to be part of the Odyssey.

We created activities that allow children to proceed from their own egocentric perspective, i.e., to first express who they are and to see how they relate to the people and characters in the ancient world. At the beginning of the exhibition, children are engaged in this computer game that asks which character in ancient Greece are you most like? Visitors answer a series of eight questions about themselves on a computer screen. Here's an example of one question that asks what they would do with super powers.



Once they've answered all eight questions, they are matched up with a character from antiquity. I believe Dr. Cole was matched up with the Cyclops when he was at the museum last week.

(Laughter)

MR. ACKERMAN: What's interesting is that once the children are engaged in an activity that begins with themselves, they are more likely to delve deeper into the content. Once they are matched with a character such as Poseidon, the computer program enables them to access deeper information and find out more about the powers of a particular god. Because the god or character has been matched with the child, the child is more

likely to access more information and to understand a core theme of how heroes were defined in ancient Greece. Children replay the game, sifting through various aspects of their own personality. They are, as Aristotle might have said, “examining their life.”

We are very interested in helping children (and adults - half of our visitors) understand that scientific inquiry began in Greece. In the gymnasium part of the exhibition, children can play 20 questions with a talking bust of Aristotle. They pick an animal and ask Aristotle questions. Through deductive reasoning, Aristotle will reveal the nature of that animal.

In the months the exhibition has been open, we’ve observed that children now see technology not as a stand-alone, but as one mode of interaction that’s really only one mode of learning along a spectrum of activities. Individual children may show a preference for one mode of learning or select a mode based on the content. Physical activity, books, art activities or computers are all perceived by today’s children as equal opportunities for learning. This finding surprised the adults who created the exhibition, many of whom think that we need to involve ‘x’ number of technological components and ‘y’ components of some other type. This generation of kids are not looking for that anymore. They are looking for interesting ways to learn and to think and to generate ideas whether it’s through technology or not. The children are engaged in becoming the scientist, becoming a person doing the inquiry.

For example, a simple weaving activity on a loom designed to explore gender roles in ancient Greece is as popular as a computer program where kids try to weave quicker than Athena in the story of Arachne. Preliminary study of tracking visitors shows equal amount of time spent weaving on the loom or on the computer.

The exhibition introduces the origin of the Olympics as part of the section of boys’ activities in the gymnasium. Two mechanical/physical activities are an arm wrestling contest and a long jump. Nearby is a 15-foot tall version of the Greek wooden Trojan Horse for children to climb through for vistas of the exhibition. The Trojan Horse gives them a different perspective, because they can look out onto a temple reconstruction and look at the architecture of the temple and the home from up top. And you can see on the top left, a child is looking through the eye of the horse.

The exhibition methodology is based on educational theory from theorists like Howard Gardner that stress how people learn in a variety of different ways. In the Trojan Horse, children learn by physically moving and playing out the content of the story.

The theme of the Odyssey section of the exhibition is *What is a Hero?* It combines learning the story of *The Odyssey* with having the kids think about what makes a hero. A series of experiences based on *The Odyssey* include physical experiences and analysis at computer stations where they answer questions about what they would do in certain circumstances. At the very end of the Odyssey experience, they will be rated as to how clever, brave, loyal, and famous they would be.

For example, a computer station is positioned after children have gone through the Cyclops cave. The only way to exit the Cyclops cave is to crawl underneath the sheep, the same way Odysseus did, and there is even a false path that sends children into a cul-

de-sac. After they emerge from the cave, children evaluate decision-making and its impact on others at a computer station.

A new piece of technology is called PlayMotion. Children use their shadow to move Odysseus' boat to navigate between Scylla and Charybdis to avoid crashing on the rocks. Do heroes act alone? To play effectively, one needs to work in groups. In a second version of PlayMotion, children can block the stones being thrown by the Laestrygonians that destroyed Odysseus' ships. The group behavior encourages them to really think about what it takes to be a hero.

At the adjoining hero computer station, children are asked a series of questions to take them deeper into themes related to being a hero. They can buy advice from a scholar who will provide them with deeper information to guide decisions and provide information about ancient Greece. The game proceeds from the child's own choices and connects to the story in a way that builds throughout the Odyssey experience.

The Sirens' Cove is one of the most fun parts of the exhibition. As you will recall, the Sirens' had a song that was irresistible. At the Children's Museum of Manhattan, the Sirens' Cove is a karaoke cove which features three popular American songs such as "He Will Survive." We selected the songs based upon what would be interesting to the adults in order to foster intergenerational learning.

We rewrote the lyrics to the songs (with permission, of course), so each song retells the story of *The Odyssey*. It's an amazing engaging group experience and the kids play it over and over again.

The Sirens' Cove is followed by another Hero Station where kids record answers to questions that will be tabulated at the end of the experience to produce a "hero record." The Odyssey experience ends with the return to Ithaca and a game where children beat off suitors to Penelope's wife. It is interesting to watch the children migrate among the computers, traditional games and physical activities without particular preference or without distinguishing a hierarchy of choice for methods of play or accessing information. Indeed, the only consistent preference seems to be for group activity.

We were very fortunate to work with the Greek government and the archaeology museum in Athens to bring to America the first model of the now famous Antikythera Mechanism. The mechanism is the oldest "computer" in world history. It was found in a shipwreck and is dated to about 150 BC. The computer is a system of 32 gears calibrated to simulate and predict the movement of the heavenly bodies. Through the use of HP imaging techniques, inscriptions have been found on this very small bronze object that reveal how the computer was to be used. In addition to the replica of the mechanism and the model, there are also two computer programs that people can play to reveal the latest understanding of how the computer functioned.

On the top left is the replica made for us in Greece, and it's not far from life size. You can see how small this is. The reconstructed mechanism is underneath it, on the far left (in ancient Greek) is the computer manual. It has the oldest known reference to the country of Spain.

It is ironic to note that the scientific achievements and methods pioneered by the ancient Greeks are exactly the techniques we use to study and rediscover the achievement of ancients.

We worked with the University of Cincinnati, with the NEH-funded CERHAS project, whose mission is to make the invisible visible. They create computer programs that allow people to see ancient structures. This is the slide at the end of a program when children reconstruct the temple of Zeus at Olympia. There are six micro programs, each of which tackles a different aspect of reconstructing the ancient world.

To complement the computer games is a manual activity. Here children are engaged in a group activity with one of our staff members to physically reconstruct a model of the same temple. This tried and true exhibition technique is one of the most popular areas in the exhibition.

After three months of observing visitors in the exhibition, we can draw some preliminary conclusions. Deeper themes emerge when children are engaged in activities with compelling content. Children (or adults for that matter) cannot absorb a tremendous amount of content and distill themes from the data. The exhibition succeeds most when it operates from the reverse type of model. People are more engaged when the exhibition appeals to their own sense of who they are and connects them to points of entry of the humanities themes. The themes connect to people's emotions and interests more than historical or cultural facts. The themes motivate people to absorb information and to develop broad historical overviews.

It's critical that the activities that we construct come from authentic content. There are many examples of museum exhibitions and television shows and movies that are based in fictional stories designed to homogenize something in history and the humanities. We are firmly of the belief that starting from authentic content speaks more powerfully to the culture and the time period in an authentic way.

Children now see technology as part of a spectrum, as one way to learn, and not as a separate means to learn. This really poses a challenge for museum professionals to understand this new generation of children. Today's kids do not have barriers of time and space the way we do. Time and space have disappeared for them because of the internet and because of the access to technology. Speaking to someone halfway around the world is taken for granted for a child who is growing up now, because they have the technology at their fingertips to do it.

To challenge children, we now have to challenge ourselves to create interesting ways to engage them. Technology is only one component, and should not become, in our opinion, the primary component, but one of many tools. We must also remember that the heart of success in museums for families will be a great story, and that people want to see how the story or objects relate to themselves. People love to see themselves as part of that story. People want to see how they fit in, how their feelings are part of a larger scenario, and how they can relate to it. We need to recognize that kids have a different worldview that we need to understand. As we look at creating museums for the next generation, or educational curricula, it's not only understanding the new media and the new technology, but the worldview with which a child who is now five-years-old will grow up. We think it's significantly different than the one we have right now.

Although this is only a brief summary of this exhibition, I hope that this provides interesting material for further discussion.

(Applause)