

# **Front-End Evaluation**

"Plastics" Exhibit
Burke Museum

Evaluation Conducted by Nick Visscher and Eric LaPlant Report Written by Nick Visscher

### **Executive Summary**

#### Main findings and Points of Interest

- Both Burke visitors and members found "Life Before Plastics" to be the MOST interesting exhibit
  topic area. This was in part due to a general interest in history, but also included the desire to learn
  more about what alternatives to plastic exist, and a peaked curiosity about how past cultures survived
  without plastic materials, specifically how their own daily routines would be impacted if plastics did not
  exist.
- Both Burke visitors and members found "What can I do?" to be one of the LEAST interesting exhibit
  topic areas. This was in part due to a feeling of message saturation, this message (that of recycling) is
  pervasive in our lives and received consistently through other organizations. Some visitors also felt
  this message was too "preachy" and were already well aware of steps they could take to reduce their
  waste and recycle.
- Other MOST interesting topics chosen included "Environmental Impacts" by Burke members, and "Plastic Science and Engineering" by Burke visitors.
- Other LEAST interesting topics chosen included "Plastics In Our Lives Today" by Burke members, and "Local Stories" by Burke visitors.
- Both Burke members and visitors rate their overall level of interest on the topic of "plastics" to be around "5" on a scale of "1-7" (1=least interesting and 7=most interesting).
- Burke visitors are already knowledgeable about the topic and already aware of the pervasiveness of
  plastics in their daily lives, specifically the environmental impacts. Environmental issues and ocean
  health are frequently mentioned when asked to discuss negative impacts, and the convenience of
  plastic is frequently mentioned when asked to discuss positive impacts.
- Some Burke members and visitors question the appropriateness of the topic as a Burke exhibit, favoring other types of museums to present this topic instead (i.e. a history museum or science center). However, to those interested in the exhibit topic, the content is timely and relevant to the natural history focus of the Burke, especially if the implications for wildlife are to be discussed.
- It was difficult for members to specifically articulate what they would expect to do or see in this type of exhibit beyond general "hands-on, interactive, posters, text displays", but most answers include some aspect of being able to touch plastic objects, specifically unique objects such as "medical devices". Any opportunity for showcasing historically unique items and/or less well-known plastic items (i.e. plastics used in medicine) would be well-received.

#### **Overview of methods**

During May 2011 and July 2011 a two part front-end evaluation was conducted with the Burke audience to assess levels of interest and previous knowledge around the topic of "plastics", the focus of an upcoming Burke exhibit. Part one of the study consisted of 45 onsite interviews conducted with Burke visitors. Part two involved the development of an online questionnaire sent to Burke members, which was completed by 104 respondents.

Data collection and instrument development was conducted by paid evaluation assistant, Eric LaPlant, a museology student participating in the *New Directions in Audience Research* initiative. Instrument development, data analysis and reporting was provided to the Burke gratis and completed by Nick Visscher, *New Directions in Audience Research* initiative coordinator for the UW Museology Graduate Program.

## **Results Summary - Visitor Interviews**

#### Topic areas of most and least interest to Burke visitors

Across four weekends in May 2011, Burke visitors were interviewed during their museum visit, given a brief and general background of the proposed "Plastics" exhibit and asked questions focusing on which topic areas were of most and least interest to them, in addition to overall topic interest and knowledge. Responses were collected from 45 Burke visitors.

#### **MOST Interesting Topic Areas**

Members were asked to choose their top two choices from a list of seven topic areas. \*

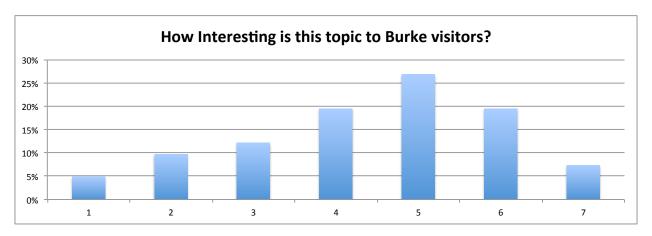
Topic Area	%	Why was this topic chosen?
LIFE BEFORE PLASTICS What did people use before plastics were invented—for carrying water, storing food, keeping dry in the rain, and other everyday tasks?	22%	Similar to Burke members, an overall interest in history and evolution of plastic products was mentioned. In addition to a desire to experience life without plastics, "what was life like back then", and what items were used in the place of plastic. Unlike Burke members, visitors tended not to reflect on this topic from the perspective of wanting to reduce their use of plastic. A general curiosity of life without plastic was more prevalent in making this topic of interest.
PLASTIC SCIENCE AND ENGINEERING What are plastics anyway? How are they made from oil/petroleum? How are new plastics developed to better met our needs	21%	A general interest in science and engineering was had by visitors who chose this topic. Visitors thought they had heard more about the other topics already and this was something new. Discussing plastics at the microscopic level and showing how plastic is actually produced is of interest. People had some personal connection to this area "my husband is an engineer", "I am an engineering student at UW".

#### **LEAST Interesting Topic Areas**

Topic Area	%	Why was this topic chosen?
LOCAL STORIES What's going on in my community? What efforts are being made to ad- dress these issues? Are there ways to get in- volved?	28%	Visitors believed the issues presented in the exhibit have more of a global impact and so local issues are too limiting to the topic of "plastics". Some non-local visitors felt this area was irrelevant to them, because they did not live in Seattle. Others felt this topic was redundant and could be incorporated throughout the exhibit in the other topic areas.
WHAT CAN I DO? What plastics can I recycle? How can I use plastics more responsibly?	16%	Similar to Burke members, visitors who chose this topic felt they already had a clear grasp of steps they could take to recycle. They felt this message was too preachy, and redundant, recognizing that we already get this message from so many other sources.

#### Interest in the overall topic of "Plastics" as an exhibit topic to Burke visitors

Burke visitors were asked how interesting the topic of "Plastics" was for a Burke exhibit on a scale of 1 to 7 (1=least interesting, 7=most interesting). 27% of members responded with an answer of 5.



#### **Sample Comments:**

#### Members who rated their interest level 5 or higher commented further

- "it is a really relevant topic right now, found it very interesting."
- "never seen an exhibit about plastics before, thinks its a good idea, compelling"
- "It is relevant to what people are doing today, useful information, it is a good time for this type of exhibit."
- "think its interesting, she hasn't seen it in other museums, however, it does seem like a topic that would fit better in a different type of museum."

#### Members who rated their interest level 4 or lower commented further

- "there are more interesting things to see at the burke, dinosaurs are cooler."
- "it is a topic that they wouldn't associate with the Burke."
- "it would be more interesting from a hard science type of museum, the burke is more cultural"
- "Doesn't seem to fit with the rest of the museum"
- "If it is a lot of information that is already know, redundant."

#### Are visitors aware of ways that plastics impact their daily life both positively and negatively?

Burke visitors are quite knowledgeable about the impact plastics have and the role they play in their daily lives. Visitors are already familiar with the idea that plastics are pervasive and are used for a multitude of purposes. Visitors most often mention environmental impacts when reflecting on the negative impacts of plastics including impact to the ocean, wildlife and human health. Some example responses from visitors are shown below.

Ways plastics have had a positive impact on our daily lives	Ways plastics have had a negative impact on our daily lives
"They have made things more convenient, things cheaper, prolonging the life of things such as food"	"They are everywhere, a lot of waste in plastics"
"really economical, everywhere, they hold their shape easily, not very reactive"	"pollution, sitting in a dump, they don't degrade, the are in the oceans"
"It's light and convenient, plastics have taken over medicine and healthcare"	"Plastics that can leak into foods, difficult to distinguish between good and bad plastics"
"Easy to manufacture which allows more people to own items that they otherwise wouldn't be able to afford"	"nalgene bottles, plastic leaching into water and impacting health"
"Everything is made of plastics, they are everywhere"	"it is hard to breakdown, it is a large general problem, it is harmful"
"They don't break, plastic brakes, medicine, reusable water bottles"	"chemicals used to make plastics, formaldehyde and acids in the plastics, are they harmful to our health?"

#### What do visitors first think of when they hear the word "plastics"?

When asked what first comes to mind after hearing the word, "plastics", visitors most frequently mention specific products including; plastic bottles, water bottles, saran wrap, bags, cups. Second, visitors associate the word with environmental impact including "negative health issues", "pile of plastics floating in the sea", "garbage dumps", and "recycling". Less common were comments including the use of Petroleum in plastics, and the versatility associated with plastic products.

## What words or phrases do Burke visitors associate with "plastics"?

A word cloud indicating frequency of mention shows a high frequency of environmental thinking when it comes to hearing the word, "Plastics" for the first time. Mentioning words like "recycling", "litter", "landfill", "chemicals" and "degrade". The idea of convenience was prominent with mentions of "cheap", "light", and "easy" in addition to products like "tupperware" and "bottles".



## **Visitor Demographics**

Where are you visiting from?	Number
Local Seattle	34
Washington (outside Seattle)	6
Boise, Idaho	1
Dallas, Texas	1
New York City, New York	1
Plano, Texas	1
Portland, Oregon	1
What is your primary reason for visiting today?	Number
To see a specific exhibit	19
General visit	22
Class/School related	4

Are you a Burke member?*	Number
Yes	4
No	40
Are you a UW student?	Number
Yes	9
No	35
Group Size	Number
Adult visiting alone	9
Adult groups (2 or more)	24
Adult with kids (ages 3-17)	12

## **Results Summary - Member Survey**

#### Topic areas of most and least interest to Burke members

During the first two weeks of July 2011, Burke members were sent an 18 item online questionnaire. Questions focused on which exhibit topic areas were of most and least interest to members, in addition to overall topic interest and knowledge in addition to suggestions for exhibit title ideas. Responses were collected from 104 Burke members.

#### **MOST Interesting Topic Areas**

Members were asked to choose their top two choices from a list of seven topic areas. \*

Topic Area	%	Why was this topic chosen?
LIFE BEFORE PLASTICS What did people use before plastics were invented—for carrying water, storing food, keeping dry in the rain, and other everyday tasks?	23%	A general interest in history and the evolution of plastics. People find it difficult to imagine life without plastics and find this a "non-preachy" way to explain that they're may be alternatives to plastic use based on what past cultures used. This topic fits well with other Burke exhibits.
ENVIRONMENTAL IMPACT What happens to plastics after we throw them away? How do they affect the envi- ronment? Can these im- pacts be reduced?	23%	Concern for future generations. People know that plastics pose environmental issues, but seek more specific knowledge as to where plastic goes after it's use. Interest in conservation and how to reduce our waste and oil consumption. Ocean gyre was mentioned numerous times.

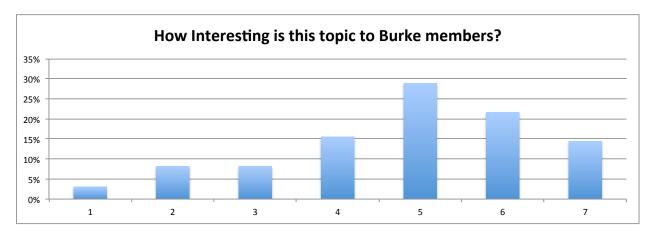
#### **LEAST Interesting Topic Areas**

Topic Area	%	Why was this topic chosen?
PLASTICS IN OUR LIVES TODAY Plastics make modern life possible; they're found in products from running shoes to shampoos. Is that good or bad or a little of both?	41%	A general feeling that among the topics suggested this is the least interesting and least likely to provide new information.  Respondents feel they already "get it", that plastics are pervasive in our lives. Want to see exhibit focused on the non-obvious.
WHAT CAN I DO? What plastics can I recycle? How can I use plastics more responsibly?	39%	Importance of recycling is a message people get bombarded with and is so commonly used. It's a Politically correct topic, but does recycling have to be discussed again? Other organizations provide this information well, a museum exhibit with this focus may not be the best use of resources. Boring in comparison to other suggested topic areas.

<sup>\*</sup>Full list of topic areas are included below in the report appendix

#### Interest in the overall topic of "Plastics" as an exhibit topic to Burke members

Burke members were asked how interesting the topic of "Plastics" was for a Burke exhibit on a scale of 1 to 7 (1=least interesting, 7=most interesting). 29% of members responded with an answer of 5.



#### **Sample Comments:**

#### Members who rated their interest level 5 or higher commented further

- "This topic is very popular with people in Seattle. We have had immense public support."
- "It's a great science vs society issue. History, chemistry, public attitudes. I would think a
  university museum would be the perfect place to address these matters."
- "I think in totally fits in the goal of the museum,"the world and our place in it!"
- "It is a topic that touches everyone, and everyone could learn something new. It's important to know about for environmental decision-making. It touches directly on our collections such as Ethnology, Zoology."

#### Members who rated their interest level 4 or lower commented further

- "I don't think of it as a "natural" science. and frankly its boring."
- "How does this fit with your mission? Plastics are certainly pervasive in Pacific Rim cultures--and are a problem in these cultures. My guess is that Burke members are aware of the many
  problems, don't litter, and do recycle. So is there more we can do to encourage others to do
  all this? And would I go to an exhibit to be lectured to about recycling and picking up litter?
  Even though I really care about the issues?"
- "I prefer the Burke to stick closer to its mission and traditional subject matter. I think this topic would more likely fit with a museum of history and industry."
- "I'm more interested in natural history themes-- and this is a bit tangential from my
  perspective. An exhibit on the oceans-- with a sub-theme of plastics-- would be more
  intriguing to me."

#### Types of things members would expect to see or do in this exhibit

We asked members what they'd expect to see or do in this type of exhibit. This not a typical question asked of visitors in front-end evaluation because of the difficulty in response (i.e. visitors don't often know what to expect in an exhibit until they receive some further knowledge or choice). Burke members are assumedly familiar with past Burke exhibits and so this question was asked due to the educated nature of the audience. Predictably, this question yielded several generic responses such as "lots of interactive exhibits", "hands-on displays", "videos", "3D objects", "Visual displays". Some of the more unique responses are listed below.

- "Challenge people to write down all the things they touch in a day that are plastic. Then have a full list to compare against so people can see all the items that they missed."
- "I'd love to see what plastic garbage from the 70's looks like -- place the decay or lack of decay into the scale of the human lifetime. Would also expect to see a display about the huge problem of plastics in the ocean, and how birds, turtles, whales all end up with plastics inside them."
- "Recycling quiz, some sort of impact sculpture, environmental impacts of plastics."
- "It would be fun to be able to touch some plastic medical devices. I'd love to have a small card to take with me with potential dangers of different types of plastics (for example, don't reuse water bottles made of type 5) Or, the safest reusable water bottles are made of type 6. I'm just making these numbers up, because I can never remember this stuff."
- "Hands-on recycle bin that allows kids to sort different plastics. This might encourage the kids to become more active at home in recycling."
- "A huge pile of plastic garbage tangled together either inside of outside of the museum. Make a
  giant wall of plastic garbage along 15th Ave. Let the wall spell "plastics". Get people to think about
  the harmful aspect of not recycling plastic. The pile could also be visually interesting and a great
  commentary on our society."
- "Hmmm. I guess I'd expect to see lots of plastic items, esp. those that we don't think of automatically in the same sentence with the word "plastic" - like fleece products, small parts we use everyday in electronics. Some things that plastic has replaced - teeth, piano keys, skins, glass jars. Effects of chemicals in plastic on breast cancer cells. Photos of the Atlantic and Pacific gyres, full of plastic trash."

#### **Exhibit titles suggested by Burke members**

Members were asked to suggest a creative title to an exhibit about "Plastics". Several members thought a play off of the famous quote from the movie, "The Graduate" would be appropriate. Other suggestions are listed below.

- Paper or Plastic? / Micro to Macro: Plastics and Society / What Lies Within: Plastics / Origin & Impact: The Fantastic? Not plastic! or The Price of Plastic
- Changing the Mold
- Fantastic Plastic: A Modern Revolution
- Plastics here today, here forever....
- Plastic Future? The Good and the Bad.
- Living With Plastics
- Mr. Robinson was Right: The future is Plastics.
- Plastics: from cradle to grave, both savior and demon;
- The artificial world around us
- Plastic Pacifiers
- Prohibiting Plastic Pollution and the Plastic Perils to Public Health
- From Bakelite to Bioplastics how plastics shape our world
- The Garbage that Makes our World
- Indestructible: How Plastic Transformed our Culture and our Environment
- How plastics changed the world--for better, for worse
- The Science of Plastics and Plastics in Science
- Weaning ourselves from our plastic fixation -- and why it matters
- You can't live without it...but what if you had to...starting today!
- Plastics: Are they making our world sick?
- The Plastic Phenomena Where Do We Go From Here?
- Plastic Planet
- PlastiCity
- People, Plastics and Pollution!
- Plastics--Good, Bad or Ugly
- Plastics: Blessing AND Bane; Plastics: will our 21st century infrastructure kill us? Plastics: indispensable, indestructable, injurious
- Meta-material
- A Panoply of Plastics-Progress or Problem
- Shaping the face of the earth, plastic
- Incredible plastic -- boon or bane?
- Plastic Perfect, Plastic Imperfect
- Tales from the Gyre!
- Plastic Fanstastic or Fatal?
- Plastic the Good, the Bad and the Ugly.
- For better or worse
- Plastics: Long-lastng effects of a Short-term product; Lasting effects of a Temporary product
- Plastic: Fantastic or Frightful?
- Past-Present- Future exhibit Old world no plastic, existing world with plastics, future world with alternatives to plastic.
- Plastics We aren't what you thought we were
- Plastics Surge-ery
- Plastics, Petroleum and Polymers
- Plastics Past Present and hopefully Future
- Plastics in our future? And how we got here.
- Plastic World
- Promise and peril of the perpetually plebeian plastics

## **Member Demographics**

What kind of membership to you currently have?  *14 skipped this question	Number
Student	2
Senior	12
Individual	12
Dual Senior	7
Family	23
UW Family	12
Cascade Associate	12
Northwest Partner	0
Pacific Patron	0
Director's Circle	1
Not sure	9
Are you currently a UW student?  *10 skipped this question	Number
Yes	3
No	91
How many times have you visited the Burke in the past year? *23 skipped this question	Number
Never	6
1-3 times	34
4-6 times	21
8 or more	11

## **Appendix**

#### List of 7 exhibit topic areas presented to Burke visitors and members

#### Topic Area

#### **LIFE BEFORE PLASTICS**

What did people use before plastics were invented—for carrying water, storing food, keeping dry in the rain, and other everyday tasks?

#### PLASTICS IN OUR LIVES TODAY

Plastics make modern life possible; they're found in products from running shoes to shampoos. Is that good or bad or a little of both?

#### PLASTICS AND HEALTH

Which plastics can cause health problems and what can we do to avoid exposure?

#### **ENVIRONMENTAL IMPACT**

What happens to plastics after we throw them away? How do they affect the environment? Can these impacts be reduced?

#### WHAT CAN I DO?

What plastics can I recycle? How can I use plastics more responsibly?

#### **PLASTIC SCIENCE & ENGINEERING**

What are plastics anyway? How are they made from oil/petroleum? How are new plastics developed to better meet our needs.

#### **LOCAL STORIES**

What's going on in my community? What efforts are being made to address these issues? Are there ways to get involved?