Public Science:
Taking Astronomy to the People

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Public Science

• First, what is “public art”?

“artwork that has been planned and executed with the specific intention of being sited or staged in the physical public domain, usually outside and accessible to all.”

Below: The Gates by Christo and Jean-Claude; Big Yellow Rabbit by Florentijn Hofman; Cloud Gate by Anish Kapoo
Public Science

• Why not have an equivalent for science?
• Therefore, we define “public science” to be:

“science outreach that has been conducted outdoors or in another type of public or accessible space such as a public park, metro stop, library etc. with the intention of engaging the public.”
Past Examples of Public Science

• Science City (New York: 1994-1995)
• Science on the Buses (UK, Canada, others)
• Science Festivals:
  – Long tradition of these in European & other countries.
  – US catching on: USA Science & Engineering Festival, World Science Festival, etc.
Astronomy and Public Science

In the US:
- Music Under the Stars
- Voyage to the Solar System
- IYA activities
- General astronomy outreach: star parties, sidewalk astronomers, etc.
From Earth to the Universe

• “From Earth to the Universe” (FETTU)
  – www.fromearthtotheuniverse.org
  – IYA 2009 cornerstone project
  – Unique model for astronomy outreach:
    • Distributed Curation
    • Global to Local Methodology
From Earth to the Universe

Results were inspiring: over 1000 locations in over 70 countries (text translated into over 40 languages.)

Images courtesy of the From Earth to the Universe project
Current Steps: FETTSS

- “From Earth to the Solar System” (FETTSS)
  - Collaboration with our group (CXC/SAO) and NASA’s Astrobiology Institute
  - A collection of 90 images that cover astronomy, astrobiology, and planetary science
  - In US, traveling version to visit > a dozen sites
  - So far, ~50 FETTSS sites worldwide
  - [http://fettss.arc.nasa.gov/](http://fettss.arc.nasa.gov/)
Current Steps: FETTSS

• What we’re researching in FETTSS & beyond
  – Who are we attracting in these “everyday situations”?
    • More incidental visitors than intentional visitors with public science?
    • Less-science-initiated audience than science centers/planetariums?
  – Do any participants follow up with local science center, library or other resources?
  – Is there any reshaping of the participant’s identity (or non-identity) with science through public science?
Current Steps: A&A

- Simultaneously, continuing research on public understanding of astronomy images with Aesthetics & Astronomy project.
  - Papers/articles at http://astroart.cfa.harvard.edu/

- Latest data analysis includes evidence for understanding the effectiveness of an astronomy exhibition in terms of gauging how much visitors have learned; what type of story format may be best for engaging the visitor/participant learning; and what type of platform may be best for implementation.
  - To be submitted, Curator
Coming Soon: HTE

• “Here, There, & Everywhere” (HTE)
  – Funding secured through NASA
  – Compares phenomena on Earth to those in space
  – Capitalize on eye-catching visuals (FETTU) with the power of analogy in public spaces (libraries, malls, etc) and small science centers.
  – First exhibits expected in late spring 2012
Coming Soon: HTE

Images courtesy of the Here, There, Everywhere project
Interested in Public Science?

• Sign up to host a FETTU or FETTSS exhibit
• Contribute to the “public science” entry on Wikipedia
  http://en.wikipedia.org/wiki/Public_science
• Join in & volunteer for the Science Communication journal club
  http://scicommjtc.wordpress.com/

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