“Thou Shalt Not Speak Messier”: Interpreting astronomy at public skywatching sessions

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Photo: Joe Pedit
When I heard the learn'd astronomer;
When the proofs, the figures, were ranged in columns before me;
When I was shown the charts and the diagrams,
to add, divide, and measure them;
When I, sitting, heard the astronomer, where he lectured with
much applause in the lecture-room,
How soon, unaccountable, I became tired and sick;
Till rising and gliding out, I wander'd off by myself,
In the mystical moist night-air, and from time to time,
Look'd up in perfect silence at the stars.

- Walt Whitman
What interpretation ISN’T

Translating from a foreign language

A kind of dance
What interpretation ISN’T

Interpretation is NOT…

**INFORMATION:**

* Merely a collection of facts, list of items, or sequence of events ("wildflower walk in the sky")
* Lacks meaning
* Interpreter could appear as merely showing off his or her knowledge
Example: temperature of Venus
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Compare this excerpt from the textbook *Astronomy Today* . . .
Example: temperature of Venus

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“in 1956…radio observations of the planet were used to measure its thermal energy emission…The radiation emitted by the planet has a blackbody spectrum characteristic of a temperature near 730 K!”
Example: temperature of Venus

. . . with Terence Dickinson’s *NightWatch*: 
Example: temperature of Venus

. . . with Terence Dickinson’s *NightWatch*:

“Envision a planet [where] it is so hot that lead would be a convenient liquid to use in a thermometer.”
Interpretation is...

An educational activity that makes emotional and intellectual connections between the INTERESTS of the visitors and the MEANINGS of the resource*

*can include: the sky and objects in it
Some principles of interpretation
(Beck & Cable, 2002)

1) Lighting a spark
2) Interpreting in the information age
3) Importance of the story
4) Provocation
5) Holistic interpretation
6) Interpretation throughout the lifespan
1) Lighting a Spark

To spark an interest, interpreters must relate the subject to the lives of people in their audience.
2) Interpreting in the information age

The purpose of information goes beyond providing information to reveal deeper meaning and truth.
3) Importance of the story

The interpretive presentation—as a work of art—should be designed as a story that informs, entertains, and enlightens.
4) Provocation

The purpose of the interpretive story is to inspire and provoke people to broaden their horizons.
5) Holistic interpretation

Interpretation should present a complete theme or thesis and address the whole person.
6) Interpretation throughout the lifespan

Interpretation for children, teenagers, and seniors—when these comprise uniform groups—should follow fundamentally different approaches.
Stuff & meanings: a quiz

You will have 3 seconds to study a picture...

Memorize it!
And be ready to list what you saw.
Stuff & meanings: a quiz

Ready?

Get Set!

GO!
3 2 1 Time!
Stuff & meanings: a quiz

What did you see?

Next...
3 2 1 Time!
Stuff & meanings: a quiz

What did you see?

Next...
Stuff & meanings: a quiz

What did you see?
What is meaningful?

Stuff that makes you think and feel
What is meaningful?

Intellectual connections: stuff that makes you THINK
“I experienced so much _____ that it made my head spin.”

Emotional connections: stuff that makes you FEEL
“I experienced ______ with all my heart.”

Offer as many opportunities to find meanings as possible
Putting it all together

Tangibles
Intangibles
Universals
Linking Info
Technique
Putting it all together

Tangibles
Intangibles
Universals
Linking Info
Technique

Or, another way to think about interpretation:
Don’t just say what the object is.

What does it look like?
What’s its story?
Interpreting at the telescope

1) 30% of time/attention helping person at the eyepiece; 70% is interpreting to the “line”

2) Present only 10% of what you know. If questions, proceed in 10% increments.
Interpreting at the telescope

3) Keep interpretation concise and compartmentalized – easier to pick up where you left off.

4) Practice friendly but directive line management (“as we go to the next object, the line will need to . . . “)
Interpreting at the telescope

5) Enforce rules in ways where enhanced visitor experience (not policing) is the goal:

- “Don’t touch the telescope!” → “If you let go, the vibrations stop and the object stops dancing.”
- “No flashlights!” → ______?_______
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