

Connecting All Texans to Conservation Through Meaningful, Engaging Interpretation

Presented by Craig Hensley, TNT Biologist

TEXAS
PARKS &
WILDLIFE

“Interpretation should instill in people the ability, and the desire, to sense the beauty in their surroundings – to provide spiritual uplift and to encourage resource preservation.”

-Beck and Cable



So, what is...

INTERPRETATION?



At its best, interpretation:

1. connects the person **emotionally** to that which is being interpreted...
2. uses those emotional connections to create **caring** for what is being interpreted...
3. through caring, creates an **advocate** for what is being interpreted

Interpretation invites us
on a path to explore the
world we know but may
not know about; it helps
us remove our blinders
and, in a sense, discover
ourselves as we discover
the wonders around us.

I am an Old Time Country Lane

Now I have been

Officially Vacated and Closed

(I never liked automobiles anyway)

I invite you to walk – as folks

have walked for generations

and be friendly with my trees

my flowers and my wild creatures

Inhabitants of the Meadow

The Animals and plants of the meadow have interesting "life histories," often displaying unique interrelationships or common behaviors.



Many meadow inhabitants interact with each other as **predator and prey**. The meadow vole, which feeds on plants and insects, is prey for both the red fox and the red-tailed hawk. The hawk, a year round resident, is a carnivore, subsisting on small rodents, rabbits and snakes. The fox is an omnivore, eating small animals, insects, fruits, berries and grasses.



Some birds **migrate** to the meadow from wintering grounds in South and Central America to breed. One is the Common yellowthroat, which nests in moist, grassy areas and feeds on the insects and spiders. Listen for its distinctive call, *Wichdy, wichdy, wichdy*.



Invertebrates, animals without bony skeletons, also live in the meadow. The dogbane beetle feeds on dogbane and unlikweed plants. The predatory goldenrod crab spider waits for unsuspecting insects to cross its path.



Residents of the vernal pool develop into their adult forms through a process called **metamorphosis**. Wood frogs and Spotted, Jefferson and Marbled salamanders are amphibians that begin their lives in the water, later evolving into adults that move to the surrounding terrestrial environment as the pool evaporates in the summer heat.

You can learn more about the meadow inhabitants in the Nature Center's indoor displays.

Eastern bluebird



Some inhabitants of the meadow depend on others for survival, a type of **symbiosis**. Goldenrod, brightening the meadow in summer and fall, plays host to the parasitic goldenrod gall fly, which lays its eggs in the plant's stem. After hatching, the fly's larvae eat the stem, secreting a chemical that causes the gall to form. The gall then provides shelter for the larvae through the winter.

WAITING ROOM AND THE "WYE" at the Michigan Military Academy



To change directions, trolleys had to turn around.



Michigan Military Academy, 1910. The building was destroyed by fire in 1910. The building was destroyed by fire in 1910. The building was destroyed by fire in 1910.



Robert Lee (left) and Robert Lee (right) were the first students of the Michigan Military Academy. They were the first students of the Michigan Military Academy. They were the first students of the Michigan Military Academy.



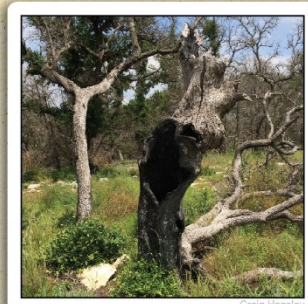
1910 waiting room at the Michigan Military Academy. The building was destroyed by fire in 1910.



YOU AUTOKNOW

In 1909, trolleys moved the contents of the seminary from Detroit to Orchard Lake at night to avoid disruption of the DUR system.

Life of a Dead Tree



Craig Henner

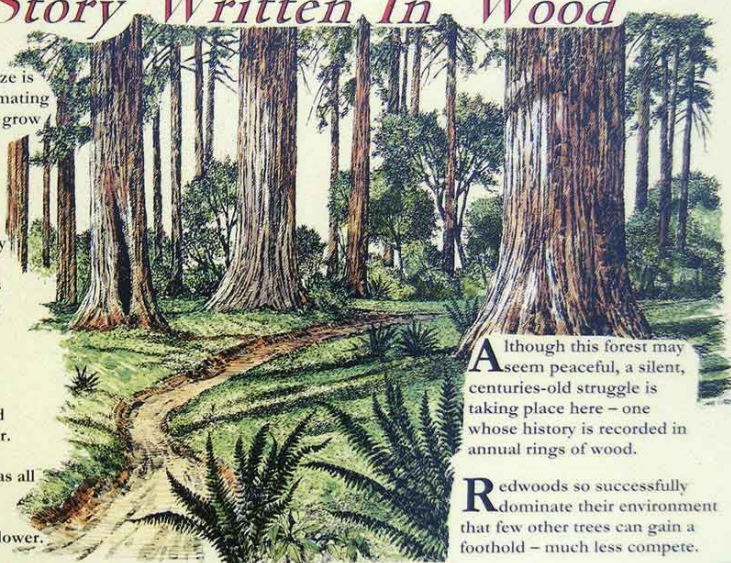
When a tree dies, its "life" doesn't. Insects move in providing food for woodpeckers. They, chickadees and bluebirds use it for nest sites. Eventually the tree will decompose, providing nutrients for new plants. Keep your eyes open as you walk through this area for the life in and on our dead trees.

A Story Written In Wood

A redwood tree's size is no guide for estimating its age because some grow faster than others.

The rate of growth is strongly influenced by competition for light, nutrients and water. Trees growing in the open, or in "holes" in the forest, can grow very rapidly.

If the trees stand close together, their roots and foliage overlap one another. There is strength in this common association, but as all must share the limited moisture, nutrients and sunlight - growth will be slower.



Although this forest may seem peaceful, a silent, centuries-old struggle is taking place here - one whose history is recorded in annual rings of wood.

Redwoods so successfully dominate their environment that few other trees can gain a foothold - much less compete.

Static Interpretation: Panels/Signs

JUMBO GIANTS

These heavy beetles can carry **85 times their weight**

Eastern Hercules Beetle are easily the heaviest insect in the Hill Country. These insects are surprisingly strong and it's been claimed they can lift and carry 85 times their body mass.

This colorful **Centipede** is large enough to eat: **LIZARDS, SNAKES, & MICE**

Walking Sticks sometimes called **Ghost Sticks**, are the longest insects in North America. **up to 10 inches long** when including the antennae.

These long BROWN and GREEN STICKS have been around for at least **290 million years.**







MIGHTY MOVERS

Dung Beetles

Coleoptera: Scarabaeidae

Are also called **Tumblebugs** for their acrobatic skills.

They fly low over pastures until they find a choice poo pile to roll.

Dung Beetles make a **BALL** out of Fresh PoOp to FEED the Larva! Then roll it into a tunnel!

RED HARVESTER ANT

Pogonomyrmex barbatus

These ants are easily identified by their large size:

Also as a favored food of the Texas Horned Lizard.

CURRENTLY The strongest person in the world can only lift: **x 2 1/2 BODY MASS**

ANTS CAN LIFT 5,000 TIMES THEIR BODY MASS





Static Interpretation:
Exhibits





Informal Interpretation
through festivals and
booths





Hands-on Interpretive Exhibits



Tom Anderson, Friends of HCSNA



Guided, Formal
or Non-Formal
Interpretation:
Personal
Interpretation



Why We Engage in Interpretation

- To deliver an organization's mission and enhance visitor experiences
- To share the story of the land and its people, to draw connections between this history, both cultural and natural, and the visitor – to help “root people to where they live*”
- To welcome all visitors to those spaces where they can create their own connections in order that they may come to join others in developing care for, and stewardship of, those resources

Essential Qualities of Interpretation

- Thematic
- Organized
- Relevant
- Enjoyable
- Accurate
- Engaging
- Sensory



Successful Interpretation

- Welcomes everyone
- Presents accurate and science-based information; stays away from personal opinions
- Isn't afraid of complexity
- Treats the audience as intelligent – including children
- Encourages dialogue
- Is in tune with audience needs whether basic comfort or learning styles



J. W. Pieper, AAMN

Interpretation vs. Teaching



Interpretation involves the sharing of information in a manner that invites audience engagement and wonder, leading to self-discovery of personal meaning and connection to the resource being explored



Teaching most often involves the sharing of facts for future recall – the learning and recitation of those facts is the objective

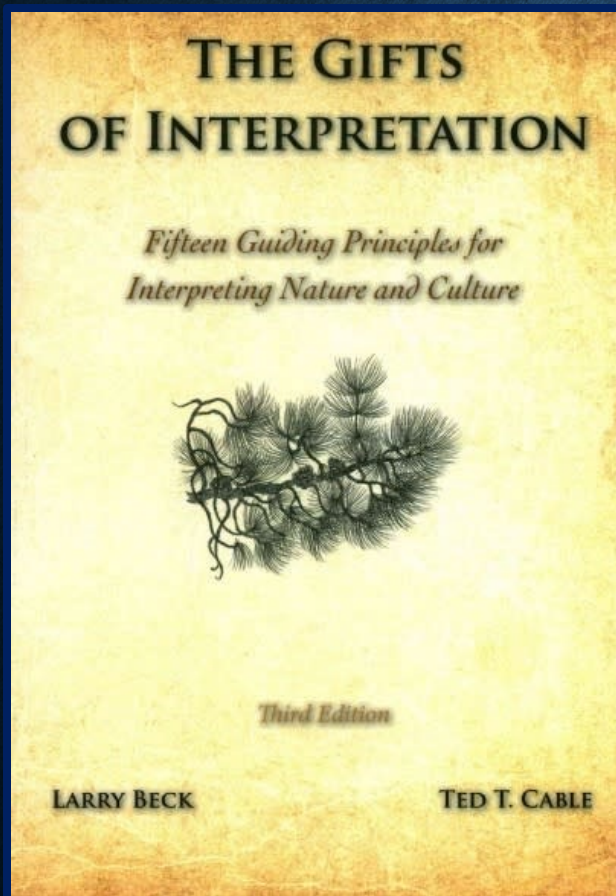
- While factual information is important, it is not the end game of interpretation; it often is for teaching
- The greater goal of interpretation is to communicate a message that answers the question “so what?”

NAI Definition of Interpretation



*“Interpretation is a mission-based communication process that forges **emotional** and intellectual connections between the interests of the audience and the meanings inherent in the resource.”*

Beck & Cable's Definition of Interpretation



*“An informational and **inspirational** process designed to enhance understanding, appreciation, and protection of our cultural and natural legacy.”*

David Larsen's* Definition of Interpretation

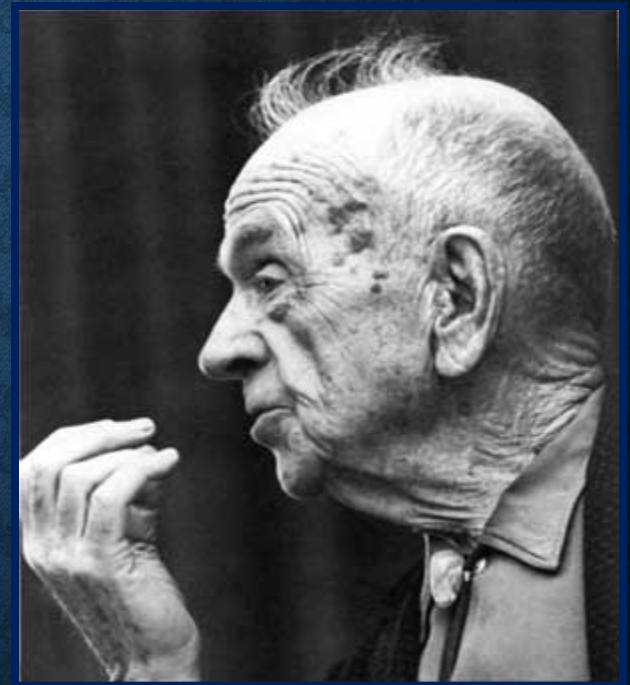


*“How to **connect hearts** and minds to places, objects, and other resources.”*

*NPS Former Training Manager for Interpretation

Freeman Tilden's Definition of Interpretation

*"Interpretation is an **educational activity** which aims to reveal meanings and relationships through the use of original objects, by firsthand experience, and by illustrative media, rather than simply to **communicate factual information**."*



Tilden's Six Principles of Interpretation

PRINCIPLE ONE

Any interpretation that does not somehow relate what is being displayed or described to something within the personality or experience of the visitor will be sterile.



PRINCIPLE TWO

Information, as such, is not interpretation. Interpretation is
revelation based upon information.

When I Heard the Learn'd Astronomer
by Walt Whitman

When I heard the learn'd astronomer,
when the proofs, the figures,
where ranged in columns before me,
when I was shown the charts and 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
wandered off by myself,
In the mystical moist night
air, and from time to time,
Looked up in perfect silence
at the stars.

PRINCIPLE THREE

Interpretation is an **art**,
which combines many arts,
whether the materials
presented are scientific,
historical, or architectural.
Any art is to some degree
teachable.



“A nature guide is an artist” ...Enos Mills

Nyta Brown, TPWD

PRINCIPLE FOUR

The chief aim of interpretation is
not instruction, but provocation.



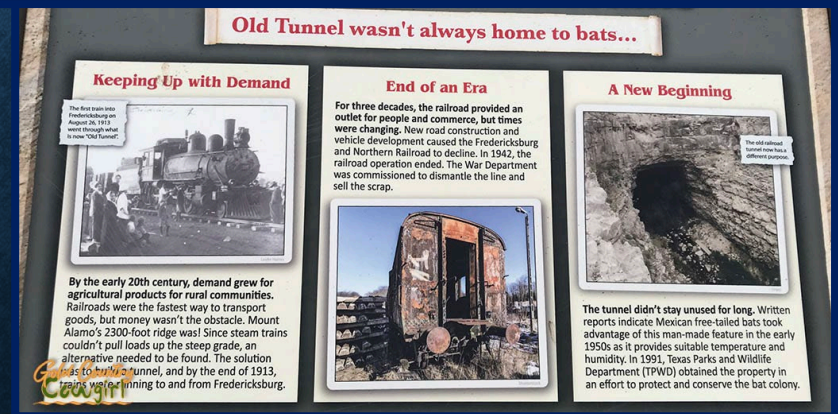
Guadalupe Chapter MNs



Laird Ingham, LMN

PRINCIPLE FIVE

Interpretation should aim to present a **whole** rather than a part and must address itself to the **whole** man rather than any phase.



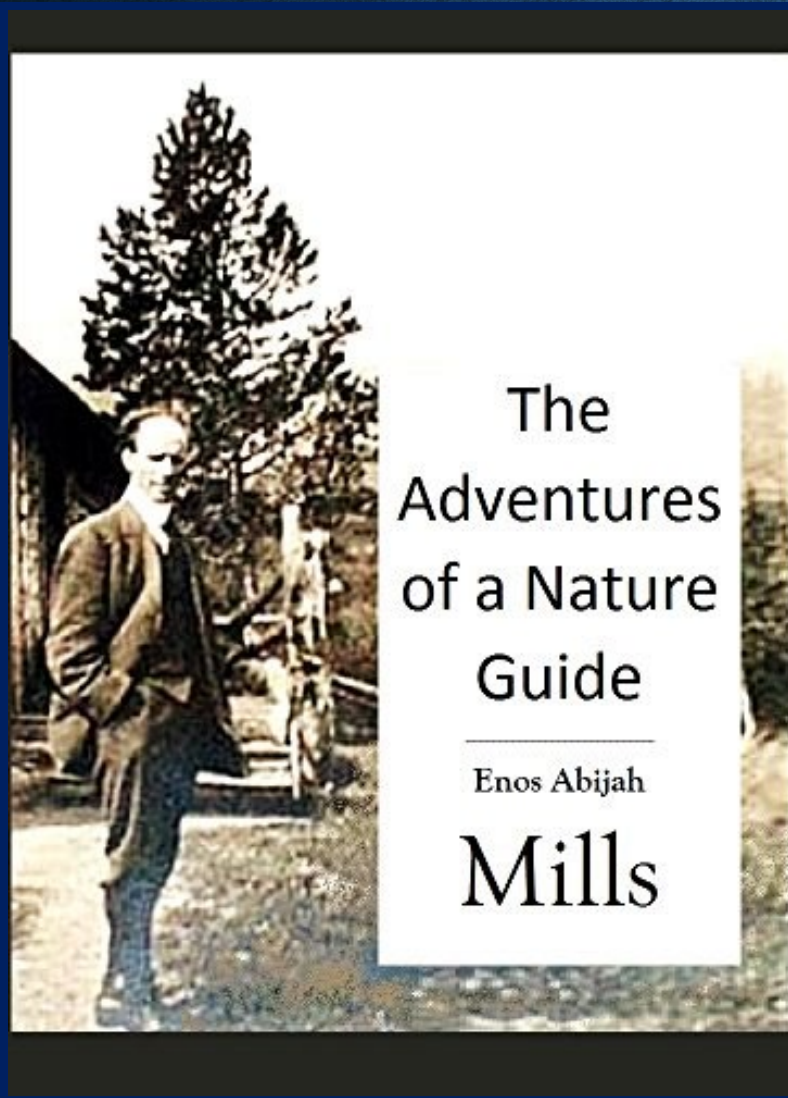
PRINCIPLE SIX

Interpretation addressed
to children should not be
a dilution of the
presentation to adults,
but should follow a
fundamentally
different approach.



"If I had influence with the good fairy who is supposed to preside over the christening of all children I should ask that her gift to each child in the world be a sense of wonder so indestructible that it would last throughout life..."
-Rachel Carson

The Interpreter



“The interpreter arouses interest by dealing in big principles – not with detached and colorless information. He creates more permanent interest in the biography of a single tree than in the naming of many trees.”

“The **best interpretation comes from the heart** and is laced with imagination, creativity, inspiration, revelation, and personal commitment.”

"Before you can inspire with emotion, you must be swamped with it yourself. Before you can move their tears, your own must flow. To convince them, you must yourself believe."

-Winston Churchill



What Makes an Interpreter

You Should:

- Being organized and ready to present
- Having a strong sense of wonder
- Being genuine
- Having a passion for, and knowledge of, the resource
- Being a weaver of stories, an artist
- Being a life-long learner – about nature, about interpretation, about people
- In a word...caring



"The people-to-people connection is what drives the people-to-nature connection"

-Taiji Nelson, Pittsburgh Parks Conservancy

What Makes an Interpreter

For Your Audience:

- Being on-time
- Being welcoming
- Addressing basic comfort of the audience
- Understanding interests of the audience
- Being adaptable – teachable moments, weather changes
- Being open to changing your program objectives as your audience needs change
- Having a passion for people of all backgrounds and experiences – and an openness to learning about them and their experiences
- Thanking your audience
- Being open to accepting thanks



Interpreters are...



Influencers...



Let's Get Practical...

- You don't have to know everything – and you won't and don't, anyway, i.e. it is okay to say “I don't know”
- That said, study, but mostly, spend time in and with the resource – books are great but the resource is the real place for the most learning
- Expect the unexpected – i.e. use “teachable moments” when they appear
- By the fact you are interested and sharing this interest puts you ahead of your audience – don't freak out
- Depending upon your topic in the field, take a field guide or whatever other supplement that helps
- Walk the path before you walk the path with your audience
- Be genuinely amazed



When all else fails, remember these basics

Every age matters



Engage with them



Be in the
moment with them



Explore with them outside



Get

on

their

level



Doing matters



Hands on...Hands in

"If facts are the seeds that later produce knowledge and wisdom, then the emotions and impressions of the senses are the fertile soil in which the seeds must grow."

-- Rachel Carson



Talk with them, not at them

Provide the tools for self-discovery



Use real items





Let them figure it out – and they will!

Engage their parents, too



Rediscover Your Sense of Wonder



John Prentice, AAMN

Have FUN!

The Gift of Passion

Passion is the essential ingredient for powerful and effective interpretation – passion for the resource and for those people who come to be inspired by the same.

- Beck and Cable



Cathy Downs, HCMN

The Priceless Ingredient

If you **love** the thing you interpret, and **love** the people who come to enjoy it, you need commit nothing to memory. For, if you **love** the thing, you not only have taken the pains to understand it to the limit of your capacity, but you also feel its special beauty in the general richness of life's beauty."

"... the six principles with which I began this book may be after all...a single principle.

If this should be so, I feel certain that the single principle must be ... **love**."

- Freeman Tilden



So what?

Does any of this really matter?











Anna Keenan





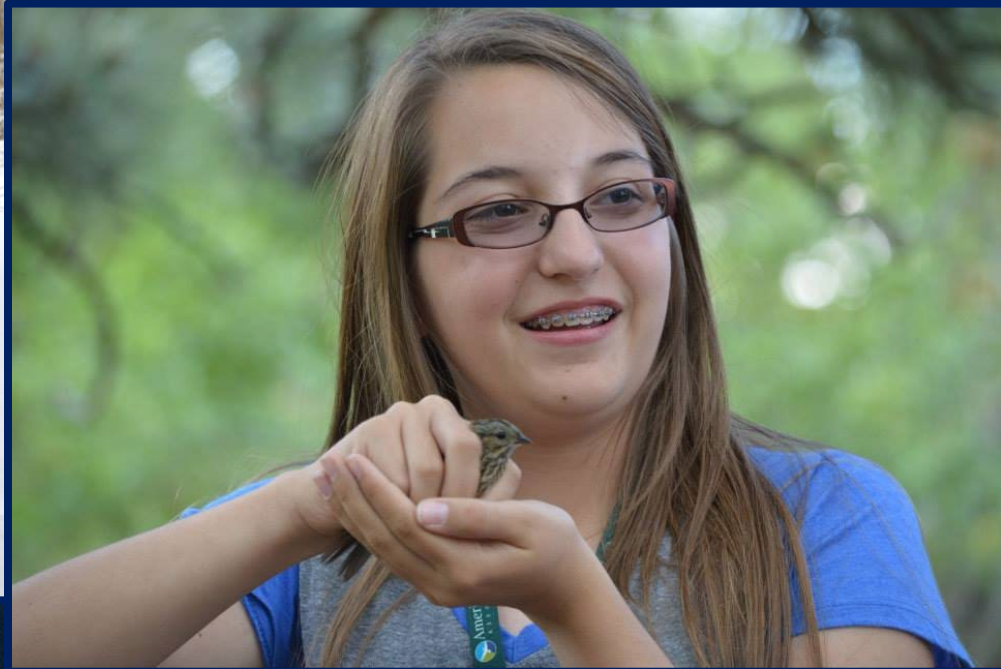
Kenlynn Volz



“Back in 2006 or thereabouts, we attended a bird-banding event run by you at the Martha Lafite Thompson Nature Sanctuary in Liberty, MO. My daughter was only 6 or 7 years old at the time. You allowed her to “release” a goldfinch after it had been banded. I thought I would give you an update on what has happened since that day.”

“When we trace back my daughter’s interest in birds, (more like an obsession now) we are pretty sure it began with that first bird-banding event with you. Birds have been her passion ever since!”

- Shari Mutchler



So, yes, I KNOW it matters

This means what you do as Master Naturalists matters, each and every time.

You are an influencer for the environment, a changer of lives and a conduit between the natural world and society.

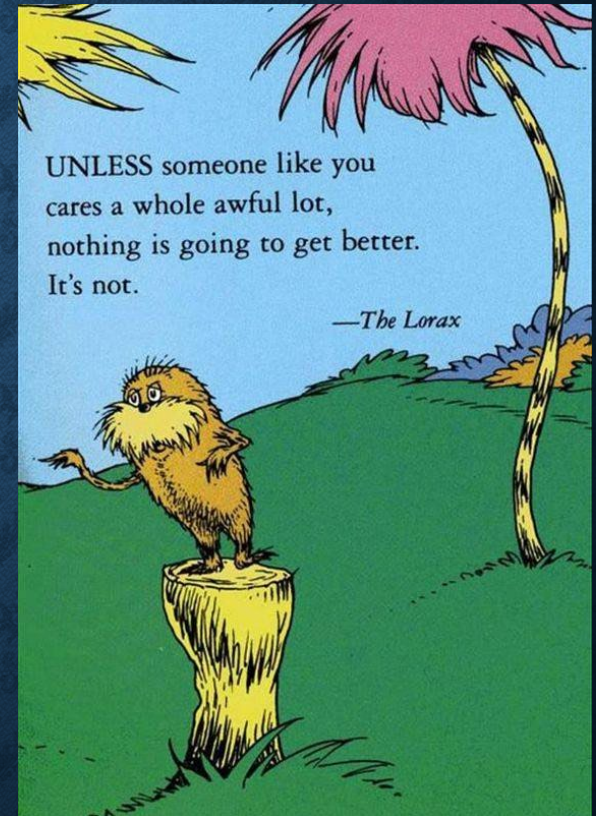
This is a powerful space you occupy –
share your passion and wield it with care and compassion.

You may never know when your passion for, and commitment to, the natural world will indeed make a difference in the life of another person, but I invite you, I implore you, to take the chance – I believe – I know – it will.

Challenges for Interpretation and Interpreters

- We must find more diversity in our ranks – both professionally and via volunteer programs like TMNs – we must look more like the diverse communities of which we are a part
- We must remember that people enjoy the outdoors differently – thus we must consider that how we prefer to enjoy the outdoors may be different than others – and thus we must recognize, accept, and if necessary, adapt to those differences
- We must find ways to engage those audiences that don't already spend time in the outdoors – we must consider taking our work to them, to their spaces
- Yet, we must not act as nature “saviors” – that is, we must work with communities, not dictate to them what we think they need, but instead have conversations to find out what their needs are and offer to lend a hand
- In the case of children, we must find ways to get away from one-and-done field trips; we need to extend field experiences through multiple grade levels over time, and leverage the experiences of children to engage families, and if possible, whole neighborhoods or communities

Lend Your Hand, Create a Spark



"Get in there and care" -Kyle Reid, University of CA Santa Cruz

To learn more about Interpretation:

National Association for Interpretation: <https://www.interpnet.com/>

North American Association for Interpretation: <https://naaee.org/>

Interpreting Our Heritage by Freeman Tilden

Interpreting for Park Visitors by William J. Lewis

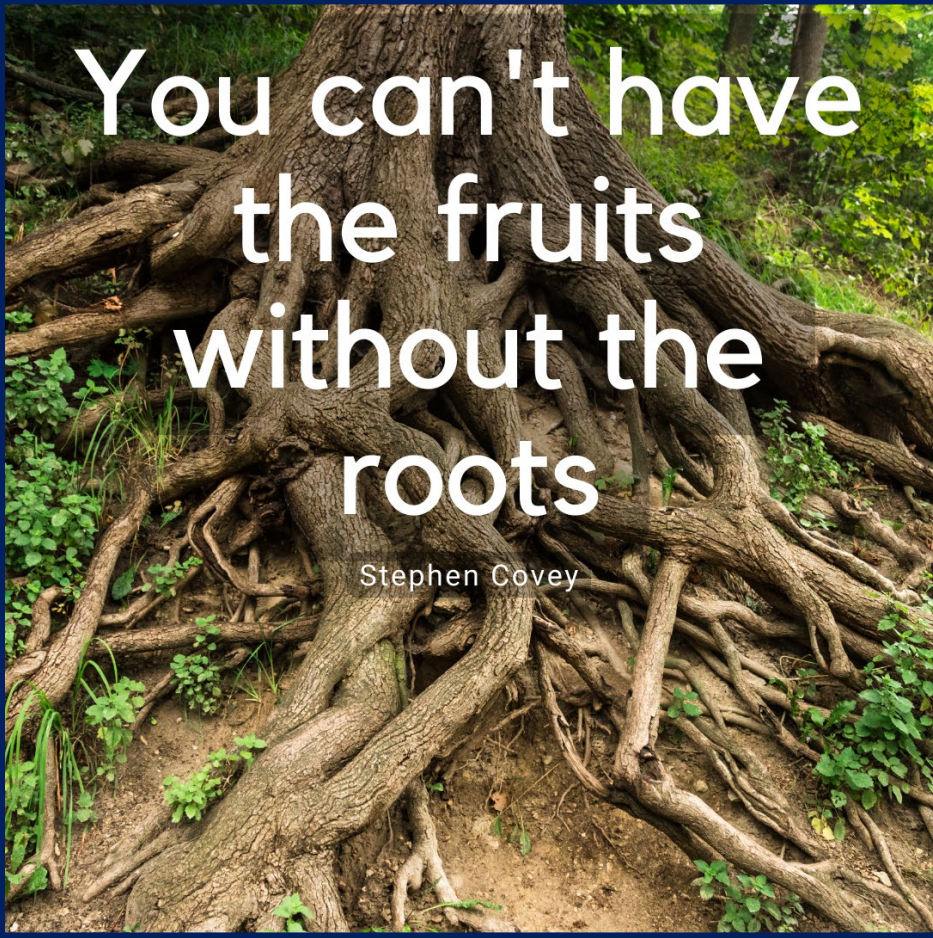
Interpretation: Making a Difference on Purpose by Sam Ham

The Gifts of Interpretation: Fifteen Guiding Principles for Interpreting Nature and Culture by Larry Beck and Ted T. Cable

Beyond EcoPhobia: Reclaiming the Heart in Nature Education by David Sobel

Reaching for Connections Vols 1 & 2 by David W. Stokes

Sharing Nature with Children (and volume 2) by Joseph Cornell



You can't have
the fruits
without the
roots

Stephen Covey

Thank you

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