Encounters at the Natural History Museum of Los Angeles County:
Bringing Science to Life!

by Ilana Gustafson, Manager of Performing Arts at NHMLA

Pleasant music fills the diorama hall as guests filter in, anxiously awaiting the Dinosaur Encounters show. Lights come up and a friendly host, Chamberlain Book (played by performer and Program Supervisor, Brian Meredith) greets the audience, setting the scene, preparing the audience for what is to come next: the entrance of a roaring, stomping, life-size, juvenile *Tyrannosaurus rex* puppet.

In the first moments we see the puppet, he is lunging toward our host, jaws open, ready for the bite. The puppet roars loudly as Chamberlain rolls out of the way and a chase ensues. Children scream, eyes fixed on the predator, suspending any disbelief that this is not truly a *T. rex*, sure that, if not watched carefully, this rabid dinosaur could lunge toward them. Chamberlain regains his control over the situation, the dinosaur is now calm, the audience settles, and everyone is ready to learn more from our host about this wild beast visiting us from 165 million years in the past.

This puppet is made of aluminum, lycra, resin, paint, feathers, nylon, and other common materials. It is a full-suit puppet worn by the puppeteer using an internal backpack. How is it that this fabricated creature inspires the awe, wonder, curiosity, and sometimes fear of our audiences? How does this puppet support the research taking place behind the scenes of our museum? It is through the insights that can be found using biomechanics and comparative anatomy, along with the exceptional skill of visual and performing artists.

The puppets used in our Dinosaur Encounters and Ice Age Encounters program at the Natural History Museum of Los Angeles County and La Brea Tar Pits, respectively, are the result of close collaboration between artists and paleontologists. It is through this synthesis of research, skill, and true artistry that allows guests to take a journey of suspended disbelief and wonder.

*continued on page 4*
President’s Welcome

Happy Fall IMTAL!

If, like me, you were unable to go to Denver for our 2016 conference, The Practical Magic of Museum Theatre, you’ll find conference wrap-ups in this issue. By all accounts, it was a fabulously successful gathering, with minds blown, boundaries pushed, and batteries recharged. The board is tremendously grateful to the conference committee for their hard work, and to everyone who attended and presented for making the conference a success.

Speaking of the board, who are these women and men? Gods and goddesses of museum theatre? Super heroes? Saints? Hardly. I mean you’ve met at least some of us, right? You know we’re just museum theatre people who believe in the work IMTAL does. And we need you. The roles of Vice President (who becomes president, then past-president), Publications Officer, and Secretary will be opening up this cycle. We also need at-large board members to help with all sorts of endeavors, from conference planning to social media content to website management. If you’d like to find out more about board service, or if you know someone who would love to be in those roles, please reach out to me at president@imtal-us.org. Official calls for nominations will hit your inbox soon.

On a personal note, I hope you will not just come to AAM, but that you will make the time to stop to see me at the Missouri History Museum and to see our exhibit #1 In Civil Rights: The African American Freedom Struggle in St. Louis. Thanks to generous support from the Institute of Museum and Library Services (IMLS), the exhibit will feature ACTivists—actor interpreters who will populate the exhibit for most of its open hours. It is a project I am excited to share. Remember to keep your eye out for the nominations call. I look forward to seeing you in St. Louis!

Elizabeth

Visit IMTAL On-line: imtal-us.org

Drop us a note—board member email addresses are listed on the last page of the newsletter.
Hey—

I had this grand plan to write my editor’s column the day after the 2016 IMTAL conference wrapped up. It was such a great conference—so many excellent presentations, so many brilliant and well-executed ideas. Practical hands-on know-how stuff, here’s how we know it worked stuff, how we made it better stuff. What if, could we, greater than, beyond yes-and, inspiring stuff. And the people! Enthusiastic, creative, passionate, determined, curious, supportive, helpful, thoughtful, delightful. This wasn’t networking; it was family, long-lost kin discovering and rediscovering each other.

But how to juggle all that in a short article that fits in this space? How to convey even half of what I learned, a tenth of the experience, even a fragment of the remarkable magic that conference attendees and presenters manifested over these few short days?

And of course, once back in my own snug office, all the work that had piled up during the final push to the conference and during the conference itself came cascading down on my already-buried desk and demanded that I deal with it first. So I did, but in the weeks since then, I kept circling back around to the Practical Magic of Museum Theatre. If you were there, you know—and I know you’ll share your experiences with friends and colleagues. If you weren’t there, I hope the photos in this issue of Insights will convey at least a little of the flavor of IMTAL’s time in Denver. And for everyone, this issue includes an article from Ilana Gustafson about the puppetry work she and her team are doing in Los Angeles, and our winter 2016-2017 issue will include articles about evaluating museum theatre programs, also based on conference presentations.

Also in this issue: it’s almost IMTAL officers and awards nomination time. Nominations for three board positions (Vice President, Secretary, and Publications Officer) open soon, along with nominations for the IMTY and Lipsky Playwriting awards. These are great opportunities and, speaking from my own experience as two-term Publications Officer, a lot of fun and a great way to discover, celebrate, and perpetuate the magic of museum theatre.

Judy

Here’s Your Chance to Change the World!

- Nominate yourself or a willing colleague for a position on the IMTAL Board of Directors. Three positions are opening—Vice President, Secretary, and Publications Officer. Terms begin in May; officers are officially installed during the AAM IMTAL luncheon. Length of term for Secretary and Publications Officer is 2 years. Term for Vice President is 2 years, followed automatically by 2-year term as President and a final year as past-president. For job descriptions, see http://imtal-us.org/board-of-directors-descriptions.

- Nominate yourself or a willing colleague as an at-large board member. These non-voting positions are a great way to get involved.

- Volunteer for One Specific Cool Thing. Help with next year’s conference planning; write an article for Insights; share IMTAL with friends and colleagues; send a photo to post on the IMTAL website; dash off a blog post for the IMTAL blog or a quick note for the Facebook page...

- Submit an IMTY nomination

- Submit a play for the Lipsky competition

- Start saving up or lobbying your institution, your friends, your family, your vendors for the cash to travel to IMTAL-Asia Pacific’s Global IMTAL Conference in 2017!
In 2007, the museum collaborated with puppet builders from Erth to create a juvenile *Tyranosaurus rex* and a *Triceratops* puppet. The builders worked closely with Dr. Luis Chiappe, who was Head of the Dinosaur Institute at our museum at that time, but is now Vice President of Research and Collections. The size, shape, coloration, and function of the puppet are all based on scientific research which has told us how dinosaurs may have looked, moved, and functioned. Scientists use biomechanics to look at the structure of the bones to better understand how these extinct creatures may have moved. This combined with comparing extinct creatures to animals living today that have similar structures (the legs of an ostrich have many similarities to those of a T. rex, for example), otherwise known as comparative anatomy, led to the creation of these life-like and entertaining teaching tools—our dinosaur puppets. And following on the heels of the success of our dinos, in 2010 our paleontologists worked with the Jim Henson Company to add a third full-suit puppet of a *Smilodon Fatalis*, otherwise known as a Saber-toothed cat, which performs in our Ice Age Encounters program at The La Brea Tar Pits and Museum.

Luis Chiappe, who was Head of the Dinosaur Institute at our museum at that time, but is now Vice President of Research and Collections. The size, shape, coloration, and function of the puppet are all based on scientific research which has told us how dinosaurs may have looked, moved, and functioned. Scientists use biomechanics to look at the structure of the bones to better understand how these extinct creatures may have moved. This combined with comparing extinct creatures to animals living today that have similar structures (the legs of an ostrich have many similarities to those of a T. rex, for example), otherwise known as comparative anatomy, led to the creation of these life-like and entertaining teaching tools—our dinosaur puppets. And following on the heels of the success of our dinos, in 2010 our paleontologists worked with the Jim Henson Company to add a third full-suit puppet of a *Smilodon Fatalis*, otherwise known as a Saber-toothed cat, which performs in our Ice Age Encounters program at The La Brea Tar Pits and Museum. Jumping off from the research on the functions of these extinct creatures’ anatomy through biomechanics, we created moving models of these extinct animals that bring science to “life” for our guests.

The puppets are built with the ingenuity of visual artists and the wisdom of the paleontologists. A puppet, however, is just a limp doll until it is infused with life by the puppeteer. Over the years we have developed an intensive hiring, training, and maintenance regimen within our Performing Arts program that seeks to find the most dynamic performance possible. There are limitations to what a puppet can do and distinct differences from the capabilities of the puppeteer’s anatomy and the creature they are portraying, but we do our best to find a happy medium between accuracy and affect. Our team is comprised of puppeteers, acrobats, dancers, athletes, stunt performers, actors, clowns...most of whom have a combination of several of these skills. They also possess a curiosity and intelligence that allows them to better achieve a performance rooted in scientific research. There is a line we have to find between imbuing the puppet with character and maintaining the integrity of the science. So, it starts with selecting a great performer with a unique set of skills in athleticism, artistry, and intellect. This is then followed by a rigorous training in both the operation of the puppet and the science that we aim to support. They are trained in content, as well as movement. Of course, they must train to learn the nuances of operating the mechanics of the puppet, but they also study the movement of animals living today that will help inform the movement of the puppet. Finally, our program could not have lasted for this long if it weren’t for the diligent maintenance of both our puppets and the performers. These dinosaur puppets were not necessarily intended to still be around 8 years after their creation. To ensure the longevity of our Encounters program, we have a full-time Technical Coordinator, Eli Presser, who conducts frequent checks and repairs. And to a similar end, the performers are expected to keep their bodies maintained so that they prevent injury and keep their performances fresh and engaging. They are required to do a physical warm-up and cool down before and after shows, as well as maintain a fitness regimen that helps with the long-term endurance required to operate a 65 – 85 pound puppet every week.

The original purpose of creating these “living” dinosaurs was to appease our guests during the period our Dinosaur Hall was closed for renovation. Whether they would still be in operation after that point was uncertain. However, our Dino Hall re-opened 5 years ago and our Encounters shows are still going strong. In fact, over 1.2 million guests have come to see both Dinosaur Encounters and Ice Age Encounters since their inceptions! Our Encounters program has shown to be an effective way to engage the imaginations of our guests and inspire them to ask more questions as they explore the museum’s exhibits. As a child stares up at the *T. rex* fossils, our hope is that they can better imagine a living, breathing creature that walked the earth just like them, connecting to the past, inspired by the amalgamation of science and art.
In early August, I received a phone call from Eddie Goldstein, who annually produces the Live Demonstration hour at the ASTC Conference. Eddie was asking for a recommendation for a “theatrical piece” for this year’s hour in Tampa. He explained that participants in the Live Demo Hour usually present a crowd-pleasing demo involving physics, chemistry, math… the sort of hands-on science demos that go over so well in countless Science museums. They are seasoned presenters, interspersed with a few newish-to-the-game performers, and the resulting mix is almost always well-received by the standing-room only crowd, despite a necessary lack of production values beyond mics, some general lighting, and—if you’re lucky—music. He wanted to mix it up a bit this year, and so was searching for a short piece that might play well in this type of arena.

I immediately thought of About a Door, this year’s Lipsky award winner. The play, written by Chris Bresky and directed and produced by Mark Webb for the Adler Planetarium, is a one-person, ten-minute piece, and probably could work within the restrictions. I put Eddie in touch with Mark and considered my job done. Mark agreed to having the play performed, but there was a wee problem: neither Mark nor Chris were attending the conference, so there was a question of who could learn the script and do it in Tampa. I served on the reading committee for the awards this year and was familiar with the script, so I suggested that if a suitable performer could not be found, I would do it. I was going to be at the conference to present another session, so it made sense to me at the time.

Mark was kind enough to bring the sole hand prop from the show, a NASA mug, with him to our Denver conference. I told Mark that I was excited to do this, and I was being truthful. I had a small issue of my own. I was learning a 40-minute, multi-character play for a special event at Discovery Place Science, and that was happening a week before the Tampa performance of About a Door. My actor brain is agile, but I don’t perform nearly as much as I used to, so cramming all eight pages of About a Door into my head (in the correct order) was a bit more of an undertaking than I’d anticipated. But memorize it I did, and rehearsed it in all my spare moments.

On the morning of the demo hour, I dressed in my 1966 duds: black slacks, black skinny tie, white short-sleeve button-down shirt. If it weren’t for the NASA credentials clipped to my pocket, I could’ve been mistaken for a referee from a local production of The Book of Mormon.

The demo hour itself was a high energy affair, with Tesla coils, liquid nitrogen, Jenga blocks, a self supporting human bridge, a mathematical mind-reading act, and Paul Taylor of the Franklin Institute rapping. I’m relieved to report that my performance seemed to be well received, and Chris’ play got some well deserved attention. And, a few hundred attendees got to see a bit of the magic of museum theatre. I spent about a half-hour after the program answering questions about the script, about the performance, and about IMTAL. I’m grateful to Eddie for asking, and I’m indebted to Mark and Chris for allowing me to share their wonderful script.
THE PRACTICAL MAGIC OF MUSEUM THEATRE: 
We Share, We Play, We Teach
August 26–30, 2016
photographs by Amber Davis Parham and Judy Fort Brenneman

Jeff Wirth, Keynote speaker & workshop presenter

Madame Curie, performed by Susan Marie Frontczac

Susan Marie Frontczac storytelling workshop

Singing out Colorado’s history, History Colorado Center

Roberta & Eddie in Jeff’s workshop

Carey Meier presents

Enraptured by the show at HCC

Cindy-Lou Edwards presenting program results

Snake Oil and More! at HCC

Cowboy shares Colorado’s water history at HCC
IMTAL’s newest member, Olivia Parham

Todd Norris introduces his session

Duck takes off

Colonial Williamsburg Foundation workshop

Stout Street Social welcome reception

Cheryl Kessler presents

Denver Art Museum performers

Jennifer Moss Logan, DMNS

Brian Meredith, dino puppeteer

Journey to Redemption, Colonial Williamsburg Foundation

continued...
Eli Presser demonstrating shadow puppets

Rabbit investigates

It takes a team to move the body

Eli Presser demonstrates all kinds of puppets

So You Think You Can Fly game show, DMNS

That’s not what we meant! (DMNS)

DMNS character

Aaron Bonds, in character

David Allison, endnote speaker

Christa Shoot Grimmer performs

So You Think You Can Fly game show, DMNS

Mark Webb Presents

Galileo and Guide, DMNS

DMNS character

DMNS character
Calls for Submissions

IMTAL Board Nominations
Opening soon:
Vice President; Secretary; Publications Officer;
at-large board member positions

IMTAL Award Nominations and Submissions
IMTY nominations and Lipsky playwriting
submissions opening soon!

Scripts on a science-related topic or person,
20–45 minutes in length, no more than 2 actors,
for Carpenter Science Theatre Company’s quarterly
staged readings of “science theatre” scripts at
Science Museum of Virginia’s Lunch Box Science
events. Submissions are accepted on an ongoing
basis; royalty payment of $50.00 for single staged
reading performance of accepted scripts.
Email copy of your script to lgard@smv.org OR
submit hard copy to:
Larry Gard
4716 Scouters Pl
Chesterfield, VA 23832

OR to
Larry Gard
Science Museum of Virginia
2500 West Broad Street
Richmond, VA 23220

Conferences, Workshops, and Events

May 7–10, 2017, St. Louis, MO
AAM (American Alliance of Museums)
conference
http://annualmeeting.aam-us.org/

May 8, 2017, St. Louis, MO
IMTAL AAM luncheon

August 26, 2016
(specific date and time during the conference TBD)

Want to write for Insights?
Short, long, article, essay, opinion piece, announcement, photos
—if it has to do with Museum Theatre, we’re interested!
Submission guidelines are now online:

Want to help put this newsletter together four times a year?
Nominations for Publications Officer are opening soon!
Submit articles, news, and ideas for Insights!
Send us your article, opinion, or news to publications@imtal-us.org no later than January 2, 2017 for the
Winter 2016–2017 issue. (It doesn’t have to be perfect; it
just needs to be reasonably coherent. If we have questions,
we’ll contact you.)


Spring 2017 issue: The Training Challenge: Who, how,
why, where (and how to pay for it)

Be Included on a Map of Conservation Theatres
Bricken Sparacino is creating a map of Conservation
Theatres to share with teachers, community leaders, and
others who bring groups on field trips or have tours visit
their facilities. Conservation Theatre uses theatre as a
teaching tool to inspire young people and their families
to love wild things and wild places, helping to create the
next generation of conservationists. Here is what the map
looks like so far.
https://www.google.com/maps/d/edit?mid=zYPl9ZckjnWc.k7YnqoF4Gjgk

If you feel that your work fits under the Conservation
Theatre umbrella, please fill out this survey and she will
add you to the map:
https://docs.google.com/forms/d/1zDj8t1tN2Aduo6xBaTOQL0u5eyYUG5X3KlwcUyVSxI/viewform?usp=send_form
Once it is finished, it will be searchable on a blog and
Facebook.
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*Doug also continues as IMTAL Website and Social Media guru. Please send questions about such things to him at web@imtal-us.org.