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WITH THE KIDS

A dance to the art and science of locomotion

Caltech joins with the Pasadena Symphony to explore Earth's varieties of movement in 'A World in Motion'

By Brenda Rees
Special to The Times

THE aerodynamics of a bird's feather in flight, the defined control of an athlete making a graceful spinning dive, the rhythmic precision of a car assembly line — art or science? Or both?

How living creatures — and some non-living things as well — move is the topic of an unusual presentation for kids Saturday that will feature film, dance, music and a scientific discussion about the nature of our nonstop, always-moving planet.

"A World in Motion" is a collaborative production between Caltech Public Events and the Pasadena Symphony, two organizations known to local families for their individual Saturday programs for kids.

Typically, Caltech's monthly Science Saturday series involves a screening of a CineMuse film — a high-definition nature-science short — followed by a scientist talking with young audience members about the subject.

The symphony, on the other hand, offers a monthly Musical Circus that introduces children to a wide range of musical experiences with different guests, genres and instruments all fueled by audience participation.

But this month, the two groups are joining forces for a motion summit that will highlight how our spinning Earth is bustling with movement and action — from both creative and scientific perspectives.

In addition to screening the CineMuse film, the program has enlisted the talents of local musical group Continuum to provide some harmonious tunes for the program. Continuum will perform its rendition of Egberto Gismonti's Brazilian toe-tapper, "Aderaldo Cego."

Building on that musical component, Caltech invited its student-led dance troupe to create a short abstract modern piece exploring aspects of movement. Comprising undergrads and graduate students along with a few staff members, the troupe usually stages three performances a year and showcases dance styles as varied as traditional Chinese and Indian dances, salsa, ballroom, tap and hula.

One of the troupe's last performances was "Run On," a piece that explored iconic images from the 20th century, such as Rosie the Riveter, Marilyn Monroe and Neil Armstrong walking on the moon.

And putting everything in perspective will be Gwyneth Card of Caltech's Bioengineering Department, who will be the scientist on hand, hosting and guiding the post-screening and show discussion.

"I've always been interested in movement, especially the motion of animals," says Card, who is studying the mechanics of fruit flies. She's discovering how these creatures with extremely simple neurological designs (and the brain the size of a poppy seed) have the ability to dodge, flip, escape and veer with amazing speed and accuracy.

Card describes the program's film as a great overview of the different ways the world moves. "Nature as a designer is fantastic," she says. "When you are seeing images of how creatures move you realize how evolution keenly solved problems of locomotion."

Indeed, Card cites the film's example of how the lowly clam has mastered an ingenious way of getting from point A to point B — by opening and closing its' shell with dramatic puffs of air.

"Compare that movement with, say, a fly or a cheetah and you'll start to see a wide diversity of methods," she explains. "But they all exist in the same physical world with the same constraints of gravity, air density, etc."

IN all, Card hopes that the afternoon will remind audience members that the moving world is a fascinating one — for both artists and scientists. "We sometimes don't pay attention to these marvels in our daily lives, so it's good to look closer at them," she says.

Moreover, says Caltech dancer Kristina Barkume, a graduate student studying planetary science, the afternoon is also a way for kids to realize that scientists have artistic sides.

"People in academics need some kind of artistic release, we aren't always hitting the books or in the lab," she says of her involvement in the program. "You often hear stories about scientists who are also musicians and artists, who use both sides of their brains. Scientists, just like anybody else, can be inspired by art, music and the beauty of the world around them."

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'A World in Motion'

Where: *Beckman Auditorium, Caltech campus, 332 S. Michigan Ave., Pasadena*

When: *2 p.m. Saturday*

Price: *Free, but reservations are required*

Info: *(626) 395-4652*