

From the Executive Committee

Charles Davidshofer, SSS President



The Society of Senior Scholars Executive Committee has been working on several issues. We would like to survey our membership about their satisfaction with current services and programs as well as ascertaining ideas for the future. Currently, we are attempting to develop a more comprehensive membership list to better

communicate with all our members. The Committee is also attempting to schedule a couple of tours for later this spring. Possible up-coming tour sites are the Avenir Museum and Gallery and the new CSU Health and Medical Center.

The Society of Senior Scholars Speakers Program, jointly sponsored with the Osher Lifelong Learning Institute, offers four or five excellent scheduled presentations on a variety of interesting and fascinating topics each fall and spring semester throughout the academic year. Occasionally, the dates and locations of scheduled activities need to be changed due to scheduling conflicts. This remainder of this spring's schedule has two changes from the original schedule, so I have listed the current schedule for your information. Remember, you can always consult the SSS website (<https://seniorscholars.colostate.edu>) to see up-to-date program schedules.

2018 Spring Happenings

The joint Osher Perks & Senior Scholars presentations this Spring are again offered from 3:00 to 4:30 p.m.

March 12

Dr. Scott Denning

The Three S's of Climate Change: Simple, Serious, Solvable

(Presentation moved to the Drake Hall, 2545 Research Blvd.)

March 19

Dr. Vickie Bajtelsmit

Ways that Human Nature Makes Us Bad Investors

(Presentation moved to the Drake Hall, 2545 Research Blvd.)

April 16

Dr. Dan Ward

Dive, Dive, Dive

(Presentation scheduled at First Presbyterian Church, 521 S. College)

May 21

Dr. David Ames

Refereeing for the NFL

(Presentation scheduled at First Presbyterian Church 521 S. College)



Beginning with this essay, the Senior Scholars newsletter plans to offer short essays that illustrate the connections between research and public policy issues. This inaugural essay is by Howard Nornes, Professor Emeritus of Neuroscience, CSU. Howard has taught his course on Neuroplasticity and Healing of the Brain three times and has also offered two Perk lectures for Osher on this topic.

A Diamond in the Rough – A Child’s Brain

Human culture is gifted with an enormous potential of optimally developing both cognitive and non-cognitive behaviors in our children. “There are no seven wonders of the world in the eyes of a child, there are seven million” (Walter Steightiff). The socio-economic impact on brain development raises issues of fairness and social justice particularly for disadvantaged children. The science and investment potential in both social and economic benefits makes early childhood and parental mentoring and support programs a compelling political agenda, not to mention the improvement of the quality of life.

A child’s brain has seemingly boundless potential. It is born with nearly all the neurons that it will have for a lifespan; the major networks and long distance pathways are laid out. However, the terminal connections lack precision. For example, the inputs from the two eyes overlap in the brain, and with usage, the inputs from each eye become segregated. The hand functions like a paddle at birth and its underlying circuitry in the brain is likewise diffusely organized. The experience of each individual finger moving independently drives the shaping of precisely localized neuronal circuitry for each finger. The biological principles operating are “neurons that fire together wire together, and if you do not use them you lose them” (Hebb’s Law). Gene expression, a second neuroplastic mechanism, is also influenced by experience (epigenetics). This results in changes in activity levels within the individual neuronal circuits. For example, nurturing patterns of the mother, abuse, and stress have been shown to influence genes expression and thus the regulation of emotional behavior.

This general developmental pattern is emerging in all the functional networks in the brain. It obviously involves significant interaction of genetics and experience. **From an evolutionary**

perspective, it enables the brain to exquisitely form the fine neuronal circuitry that drives physiological functions and behavioral skills to optimally adapt an organism to its particular environment. The development of the circuits also occurs hierarchically, in the sense that the later forming pathways and circuits are built upon the foundation of the earlier forming ones. This has consequences as a compromised experience at an early stage has repercussions downstream. Further, each functional network goes through a predictable critical period where it is optimally influenced by experience. This is why, for example, it is essential that congenital cataracts be removed early postnatally.

The reality of these neuroplastic mechanisms is that the quality of the behavioral skills and underlying neuronal circuitry are a function of the quality of the experiences – precision in input results in precise output. Not surprisingly, early family environments and socioeconomic factors are major predictors of both cognitive and non-cognitive behaviors. Both factors impinge on the hierarchical and critical periods and result in the emergence of gaps in both cognitive and non-cognitive behaviors. Gaps that emerge before a child enters school generally persist, and it is very difficult for disadvantaged children to ever catch up.

By contrast, the positive perspective of this hierarchical and critical period scheme of development is the efficient payoff in investing in early childhood education and parental mentoring. Consider the High/Scope Perry Preschool program where they looked at both short and long term effects of quality preschool education programs for African-American children living in poverty (Schweinhart, et al., High/Scope Press, 2005). Three- to four-year olds entered a two-year program of weekday morning classes and weekly teacher home visits with the parents. At age 40, the students in the program compared with their controls had higher graduation rates, higher incomes, less rental subsidies, more savings accounts, fewer social services, fewer arrests and incarceration rates, and other positive social and intellectual values. The overall cost/benefit of the program when these children reached 40 years old was a dollar invested in the program group saved \$12.98 over the control group with the greatest savings in criminal costs.

Stated simply, we have a diamond in the rough – a child’s brain – and we currently have minimal public policy to polish the gem.

Shifting Gears After Retirement

We all shift gears after retirement – after all, that’s the purpose of leaving the set of responsibilities that were part of our former workplace. But what does our new focus look and feel like? Most of us spend more time working on our health. Many of us cherish the time to read, to hike, to travel, to gather more frequently with friends and family, to garden or to volunteer for a favorite organization. The lucky ones are able to say “I’m so busy I don’t know how I ever had time to work!”

The four profiles that follow illustrate different patterns of retirement. Retired from the Human Development and Family

Studies Department, Janet Fritz has combined her affection for Amber, her golden retriever, with her professional interest in developmental psychology. Sandy Kern fell in love with opera as a teenager, pursued his interest over the years while teaching physics, and now shares his expertise with the Osher program. Carol Cantrell left her position as an English professor knowing that a major commitment in a new phase of her life would be pursuing a long-time interest in painting. In contrast, Jim Boyd found a new passion for writing and reading poetry after leaving the Philosophy Department. Read more of their stories.



Carol Cantrell and One of Her Watercolors

Some years ago, Carol took a course with local artist Sibyl Stork and was immediately drawn to watercolor, in large part because of the way the pigment behaves. In her academic teaching and writing, Carol was especially interested in explorations of the natural world, drawing on art history, philosophy, and literature. Watercolor appealed to her because pigments interact with water and paper in processes that evoke the natural world.

About five years before retiring from CSU, Carol started painting more regularly. She still works with Sibyl and others who share her passion for painting. Painting has brought a new social circle of people who

are supportive without being negative and who particularly welcome experimenting – and playing – with movement, forms, colors, and subject matter. Carol makes it clear that she does not want to live up to others’ criteria; nor is she particularly interested in selling her paintings, although she participates in art exhibits that showcase her work. Her commitment is to explore the natural world through her strokes and colors, working as often as possible and as long as possible.

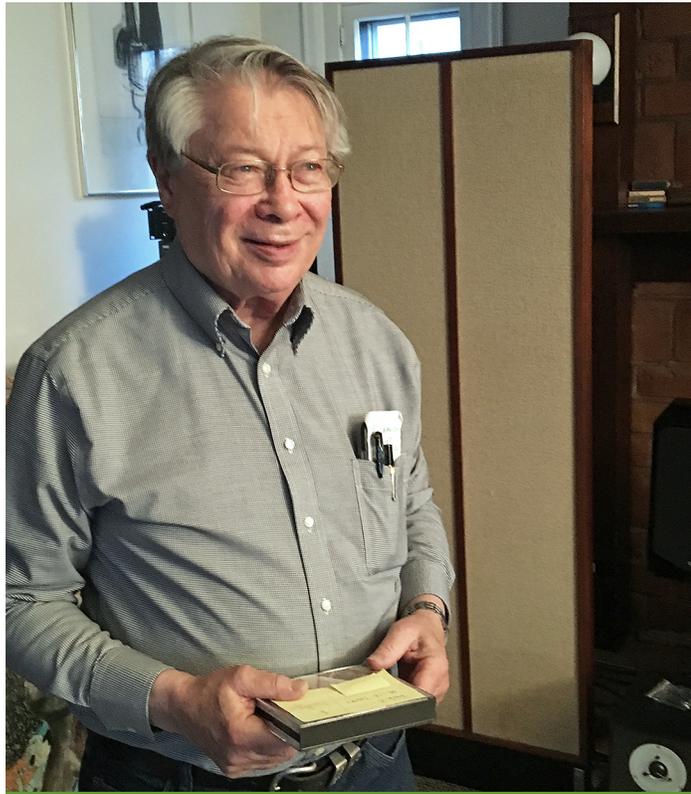


Landforms 2

Sanford (Sandy) Kern and a Passion for Opera

Sandy Kern grew up in a family listening to the Saturday afternoon Metropolitan Opera broadcasts, but it was a job selling libretti as a college student that started his life-long love affair with opera. He has seen dozens, if not hundreds, of Met and other opera performances over the decades. After his undergraduate and graduate work in Chemistry and Physics, Sandy eventually settled in Fort Collins to teach at CSU. He has long supported the Fort Collins Opera and Opera Colorado and eventually began to share his opera expertise with friends.

By now, Sandy has taught his opera course five times for the Osher program, always in his home, always surrounded by multiple sound systems and hundreds of CDs. And all those voices – can he really hear the differences? As he instructs his Osher students to listen to the sopranos or the tenors, it's clear that he hears something in the voices that most others don't. Ask him about the elegant soprano, Renée Fleming, or Jussi Björling, the celebrated Swedish tenor. And does Sandy sing? He claims that he did sing once at the Met – to an empty house.



Sandy at home, where he teaches his opera courses.



Janet and Amber

Janet Fritz and the Human Animal Bond

The Human Animal Bond in Colorado (HABIC) is lodged in CSU's School of Social Work. The program trains human-animal teams (primarily dogs) that are certified to work in different situations. Currently the organization has more than 120 teams volunteering in over 50 community agencies, schools, or facilities in Northern Colorado and Denver.

Here are excerpts from one of Janet's experiences:

At one elementary school, I was asked to work with a selectively mute second-grade girl. She talked at home, but never in school. A previous team had started with her, but was unsuccessful. I went in to try and was just about to stop, but thought I'd try once or twice more to see if she became more comfortable. "And the very next week it was as if she was just like any child [Amber] had worked with...Amber and C. became a skilled team very quickly...At first I considered it a bit of a failure, since at the end of the year, there had been no talking or even single word commands." It took two more years before C. began talking at school, showing everyone a framed photo of Amber that I had given her and saying "Amber is the dog that taught me to talk in school."



Amber and friend

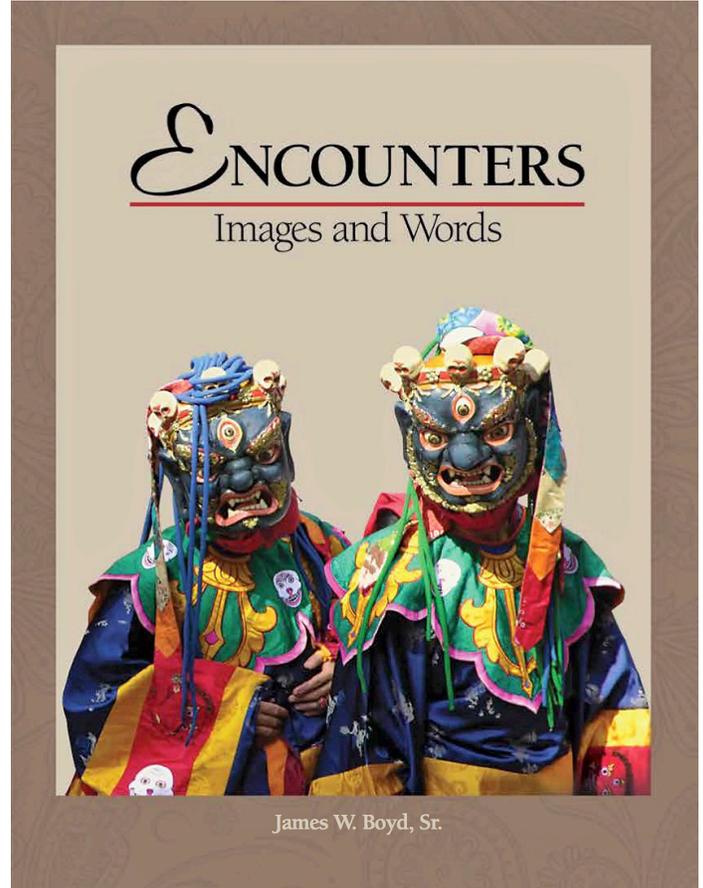


Jim Boyd and His Encounter with Poetry

It's a common enough request of parents and grandparents – tell us stories about growing up, your travels, or these photos – in short, fill us in on your life. So retirees often turn to memoirs, with some taking courses in writing and others just plunging in. Jim began with plunging but the stories he started to write

resembled his academic writing – fine for his journal articles and books but not so enticing to his children. Gradually the long sentences became shorter, filled with the sounds, smells, and sights of his travels. It was beginning to look like poetry.

Like Carol Cantrell, Jim has drawn heavily on the support and expertise of a teacher, Veronica Patterson, and regularly signs up for her Osher writing courses. He writes at least two hours every day, and is constantly editing and revising. "I'm not a poet," he laments. Perhaps, but he has found his creative passion in retirement, even publishing a book in 2016 of his photos and poems: *Encounters: Images and Words*. He participates in poetry readings and occasionally exhibits his photo-poems in Fort Collins and Loveland. His commitment to writing brings him in contact with new friends who read his work and support his experiments.



James W. Boyd, Sr.



Looking Back: 10 Years of the OSHER Lifelong Learning Institute

CSU emeritus faculty members contributed regularly to Osher programs, with which the Society of Senior Scholars collaborates on a regular basis. Our members teach courses for Osher (for example, Howard Nornes and Sandy Kern, profiled in this newsletter), offer lectures for the "Perks" series and for the regular Monday afternoon talks. We've asked the Director of the Osher Institute to provide an overview of this successful program for continued learning.



Since its inaugural offerings in 2007, Osher has been creating educational opportunities for people aged 50 and better in northern Colorado to challenge their minds and enhance their lives. Osher offers courses, one-time lectures, and special programs all to foster the joy of learning. "Research on aging confirms that an active brain is preventative medicine, and people who stay active socially, mentally and physically are the happiest and healthiest," says Osher Director, Jean Morgenweck.

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Looking Back: 10 Years of the OSHER Lifelong Learning Institute

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Osher is a member-based, member-driven learning community with curious minds of all ages welcome. Founded in partnership with the Bernard Osher Foundation, the CSU program is one of more than 120 institutes nationwide.

Osher offers classes in a wide breadth of topics including: global and cultural awareness, environmental issues, history, nature, technology, arts and design, the sciences, health and wellness, communication and language arts, and more. Classes are taught by emeritus faculty and other experts in their fields, and are offered face-to-face in the classroom, giving participants the opportunity for questions and discussion with others who share similar interests. “Our members are a very diverse group. They love to network, share, and debate. It’s a warm, welcoming community. We have something for everyone with over 125 offerings each year.”

Typical classes meet once a week for two hours for six weeks, though some courses run for shorter or longer durations. Individual tuition varies based on the duration of the course. There are no tests, no prerequisites, no homework and no attendance requirements either, creating a stress-free environment to learn and grow. Members get as much out of the class as they care to put in.

“People love our global and cultural affairs classes. They love our nature programs, and history, and science classes like Medicine through the Ages.” Says Morgenweck. “Especially popular are our art and writing classes, where individuals enjoy exploring their creative side in retirement.”

More than 875 members currently comprise the CSU Osher community, and there is always room for more. Joining is simple, and the benefits are endless. A low annual fee of \$35 allows members to access and register for Osher courses, special programs, and Perk lectures. In addition, members receive free access to one Perk lecture within the membership year.

You can participate in Osher in a variety of ways: as a learner; as an instructor or lecturer, sharing your knowledge and expertise with others; as a volunteer on one of its many leadership committees; or as an engaged member enjoying the numerous social activities and friendship benefits of Osher.

To join in person, stop by the Osher Office at Colorado State University, Drake Hall, 2545 Research Blvd. in Fort Collins. You can also register by phone at [\(970\) 491-7753](tel:9704917753) or visit www.osher.colostate.edu.

Jean Morgenweck, Osher Director



OSHER Lifelong Learning Institute at Colorado State University:
For Curious Minds of All Ages with Special Attention to Those
Ages 50 or Better

Colorado State University

PROVOST OFFICE

Please contact us with questions and suggestions!

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