



## President's Message



### Rochester Academy of Science Annual Meeting & Spring Lecture

Thursday, April 4, 7:15 p.m.  
Brighton Town Hall,  
Community Room

The results of the election for the Board of Directors will be announced at the business meeting at 7:15 p.m. A ballot is included in this Bulletin on page 2. Please show us your support by returning the completed ballot at the annual meeting.

The Spring Lecture will follow the business meeting. We are delighted to have as our guest speaker, Dr. Omer Gokcumen, University at Buffalo, who will share his research about the genomic ghosts of our ancestors.

Jutta Siefert Dudley, Ph. D.  
President RAS

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**RAS 2019 Election  
Ballot is on next page.**



## Spring Lecture, Thursday April 4, 2018

### Genomic Ghosts of Our Ancestors Presented by Omer Gokcumen, Ph.D.

Recent advances in genomic technologies allowed us to take glimpses into our ancestors from hundreds of thousands of years ago. To our surprise, we discovered that all of us share genetic pieces from our evolutionary cousins (e.g., Neanderthals) who lived side-by-side with our ancestors before dying out. These pieces may hold clues to modern human variation and shed light on the amazingly diverse world of our ancestors.

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### About Our Speaker

Omer Gokcumen, Ph.D. is Associate Professor, Department of Biological Sciences, University at Buffalo. He received his doctorate in 2008 from the Anthropology department of the University of Pennsylvania, and subsequently did postgraduate work at the Harvard Medical School Jackson Lab for Genomic Medicine.

Omer Gokcumen is an expert in evolutionary anthropology — the study of how humans evolved and how they differ from non-human primates such as gorillas and chimpanzees.

Dr. Gokcumen has published ~50 papers examining the role that genomic variants, especially deletions and duplications, play in human disease and biology in modern and ancient populations.



*Omer Gokcumen Ph.D.  
University at Buffalo*

Dr. Gokcumen also runs the Gokcumen Laboratory of Evolutionary and Anthropological Genomics at the University of Buffalo. His research uses genomic tools in an evolutionary framework to investigate the broad question: what makes us Human?

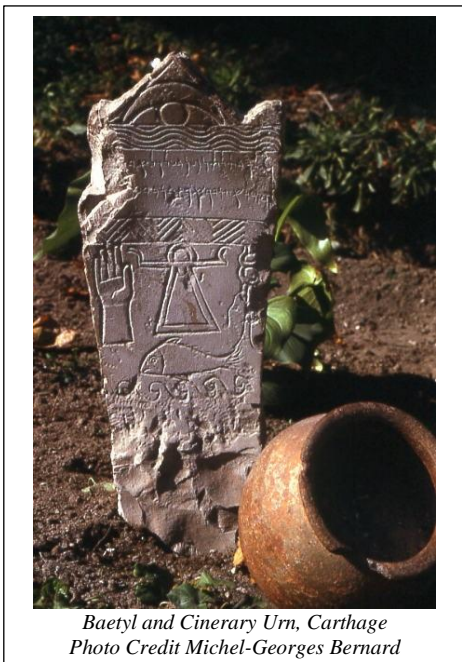
*"At the Gokcumen Lab of Evolutionary and Anthropological Genomics at SUNY Buffalo, our current focus is studying **The impact of genomic structural variation in human evolution.** Genomic structural variants (SVs) involve differences in copy number (i.e., deletions and duplications), orientation (i.e., in-inversions) or genomic location (i.e., translocations) of large segments of DNA between individuals. We believe that SVs represent a huge and unexplored area of evolutionary genomics that is ripe for studies focusing on their impact on human disease and biology."*

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## Sardinia Part II: Phoenicians, Carthaginians and the *Tophet*

Continuing from January's short article on Sardinia, this installment focuses on the colonial period after the Bronze Age of the island. Starting around the 10<sup>th</sup> century B.C.E and continuing into the 7<sup>th</sup> century B.C.E., Sardinia witnessed the famed migration episodes of the Greeks and Phoenicians to the Western Mediterranean. The indigenous people of Sardinia watched as Phoenician merchants began gradually occupying their shores, colonizing small coastal enclaves, and establishing ports, ushering in a new age of Western Mediterranean life.

One fantastic example of this colonization is the Phoenician site of Tharros, located in the central western coast of the island. Tharros was founded in the 9<sup>th</sup> century B.C.E. by Phoenician merchants, most likely trading with the inland indigenous groups. At the beginning of the 6<sup>th</sup> century B.C.E., the North African Phoenician colony of Carthage emerged as a regional power. The city gradually cut ties with the Phoenician homeland and established its economic influence in the Western Mediterranean.



*Baetyl and Cinerary Urn, Carthage  
Photo Credit Michel-Georges Bernard*

Sardinia became part of this economic and political sphere of influence and Tharros became a Carthaginian colony. As trade continued in earnest, new religious practices are introduced on Sardinia. One of these practices is the use of a particular kind of Carthaginian infant cemetery known as a *tophet*. Small incinerary urns of a child's remains were placed in this cemetery, often adorned with stone *baetyls* or small stele marking the child's presence (pictured above from Carthage). To the Romans, the *tophet* was a place of infant sacrifice where small children were offered to the

Phoenician or Carthaginian gods. Nevertheless, Roman authors are notorious for their slanderous accounts of Carthaginian life. Archaeological evidence has shown that these remains were both young children and possibly premature births, supporting the possibility that the *tophet* may have simply been an infant cemetery dedicated to the gods. Tharros indeed has a *tophet* located just outside of the city center. Many other cities with *tophets* exist throughout Sardinia, North Africa and Sicily. In fact, Rochester's Memorial Art Gallery has one of these small incinerary urns currently on display in the Ancient Egypt, Greece and Rome Gallery, most likely from Carthage's own *tophet* (Object 25.42). The debate continues as to what exactly these cemeteries represent. But these religious structures, coupled with other temples, imported objects and local material culture attest to the Phoenician and Carthaginian presence on Sardinia, or what can be seen as a first wave of colonialism.

*Dr. Alexander Smith, Leader of the Anthropology Section of the Rochester Academy of Sciences*

### ROCHESTER ACADEMY OF SCIENCE BALLOT FOR JUNE 2019 – MAY 2020 OFFICERS

OFFICE	NAME	√	WRITE-IN CANDIDATE
President:	Michael Grenier		
Vice President:	Daniel Krisher		
Membership:	Open		
Treasurer:	William Hallahan, Ph.D.		
Secretary:	Helen Downs Haller, Ph.D.		
Member, Board of Directors (2019-2022)	Anthony Golumbeck		
Member, Board of Directors (2019-2022)	Jeffrey Gutterman		
Completed ballots may be delivered in person at the RAS Annual Meeting & Spring Lecture on <b>April 4</b> or mailed c/o the RAS Secretary: Rochester Academy of Science, PO Box 92642, Rochester NY 14692-0642			

# Events for March 2019

For updates to events, check the Academy website, <http://www.rasny.org>, and Section websites.

## 1 Fri: ASTRONOMY SECTION MEETING

7:30 p.m.–10:00 p.m. RIT Carlson Center for Imaging Science, CAR-1125. Lot F. Main Speaker: Jaroslav Pillardy, PhD, Cornell University. Topic: Electronically Assisted Astronomy. Snacks available at 7:00 p.m. prior to meeting. Contact: Mark Minarich: (585) 257-6042.

## 3 Sun: ASTRONOMY PUBLIC OPEN HOUSE AND SLEDDING PARTY

12:00 p.m. - 4:00 p.m. (or later, if skies are clear). Marian and Max Farash Center for Observational Astronomy, 8355 County Road 14 Ionia, NY 14475. Sledding, weather permitting. For weather related cancellations or changes contact Mark Minarich: (585) 257-6042 or see [www.rochesterastronomy.org/calendar-of-events](http://www.rochesterastronomy.org/calendar-of-events).

## 4 Mon: ASTRONOMY BOARD MEETING

7:00 p.m. University of Rochester, Bausch & Lomb Hall, 4th floor Chart Room. All ASRAS members are welcome. Contact Mark Minarich: (585) 257-6042.

## 9 Sat: ASTRONOMY MEMBER OBSERVING – MESSIER MARATHON

7:00 p.m. +. Marian and Max Farash Center for Observational Astronomy, 8355 County Road 14 Ionia, NY 14475. For weather related cancellations or changes contact Mark Minarich: (585) 257-6042 or see [www.rochesterastronomy.org/calendar-of-events](http://www.rochesterastronomy.org/calendar-of-events).

## 12 Tues: FOSSIL SECTION MEETING

7:30 p.m. Brighton Town Hall, downstairs meeting room. *Note: change of date due to room*

*conflict.* Speaker: section member Michael Grenier. Topic: “Dinosaur Research in 2018: New Findings.” Contact: Dan Krisher, [DLKFossil@gmail.com](mailto:DLKFossil@gmail.com).

## 15 Fri: ASTRONOMY WINTER LECTURE

7:30 p.m.–10:00 p.m. RIT Carlson Center for Imaging Science, CAR-1125. Lot F. Member Short Talks. Don Chamberlain: Trip to Tycho Brahe Museum in Denmark. Lori Englund: Eclipse experience. Contact: Mark Minarich: (585) 257-6042.

## 16 Sat: LIFE SCIENCES HERBARIUM WORKSHOP

10 am–2 pm. Basement Rochester Museum and Science Center (RMSC). No experience needed! Bring a lunch or buy it at the RMSC Café. If you plan to attend, please send an RSVP to Elizabeth Pixley. Meet by RMSC front desk. If you miss us, ask staff person to call ext. 368 in the Herbarium. Contact: Elizabeth Pixley, herbarium curator, 334-0977 or [evpixley@gmail.com](mailto:evpixley@gmail.com).

## 19 Tues: MINERAL SECTION MEETING

7:00 p.m. Brighton Town Hall, downstairs meeting room. Rocks and shells on the Earth’s surface weather and erode, often transitioning temporarily into sand. Where these little grains gather, people are there to scoop them up for study or for pleasure. Sand grains reveal geological stories if you know what clues to look for. Jim Rienhardt will describe some of these and we’ll examine samples prepared by Jutta Dudley with stereomicroscopes. Door prizes and refreshments. Contact: Stephen Busschaert, (585) 351-7633.

## 20 Wed: RAS BOD MEETING

7:00 p.m. Brighton Town Hall, Stage Conference Room

## 23 Sat: LIFE SCIENCES FIELD TRIP

10 am. Meet at Mendon Ponds Park, visitors center. Tour adjoining Wild Wings raptor compound. Afterwards, early spring nature walk on one of the park trails. Directions: Larry Hirsch (585) 429-6199.

## 31 Sun: ANTHROPOLOGY FIELD TRIP

1 pm. Stone-Tolan House, 2370 East Avenue. The Stone-Tolan House is the oldest wooden structure in Monroe County and the Landmark Society sets up artifacts from the early 1800’s in the rooms, along with a few articles that do not belong to the early 1800’s. This April Fools Event allows you to try to identify the items that do not fit. We will also tour the grounds of the site. Parking is available on site. Contact: Alex Smith 750-3329.

## ONGOING EVENTS

### STRASENBURGH OBSERVATORY


ASRAS will operate the telescope at Strassenburgh Planetarium on mostly clear Saturday nights. Contact: Jim Seidewand (585) 703-9876.

### ASTRONOMY STAR PARTY

ASRAS hosts public outdoor star parties once a month on Fridays, either at Mendon Ponds Park or Northampton Park near Brockport. Notices are posted on the prior Wednesday at the ASRAS Facebook page, and [www.rochesterastronomy.org/calendar-of-events](http://www.rochesterastronomy.org/calendar-of-events), or, contact Jim Seidewand, (585) 703-9876.

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**Don't Forget to Renew  
Your Membership!**

See January Bulletin  
for Membership form 

**Rochester Academy of Science**  
**P.O. Box 92642**  
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Return Service Requested

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**March 2019 - Vol. 73, #3, Page 4**

**CHANGING ADDRESS?**

Temporary or Permanent?

Notify whallah3@naz.edu.

A returned newsletter costs us 59¢

Please help stop this waste.

**ABOUT THE ACADEMY** - The Rochester Academy of Science, Inc. is an organization that has been promoting interest in the natural sciences since 1881, with special focus on the western New York state region. Membership is open to anyone with an interest in science. Dues are minimal for the Academy and are listed in the membership application online. Each Section also sets dues to cover Section-related publications and mailings.

For information, contact President Jutta Dudley at (585) 385-2368 or by e-mail: [pres@rasny.org](mailto:pres@rasny.org).

The Academy Internet website is

<http://www.rasny.org>

Or see us on Facebook at

<https://www.facebook.com/RochesterAcademyofScience>.

This “**BULLETIN**” is produced monthly, except July and September, by the Astronomy Section, Rochester Academy of Science. Submissions are due by the 10<sup>th</sup> of the month and may be emailed to:

[editor@rasny.org](mailto:editor@rasny.org).

**The Academy postal address is P.O. Box 92642, Rochester NY 14692-0642.**

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