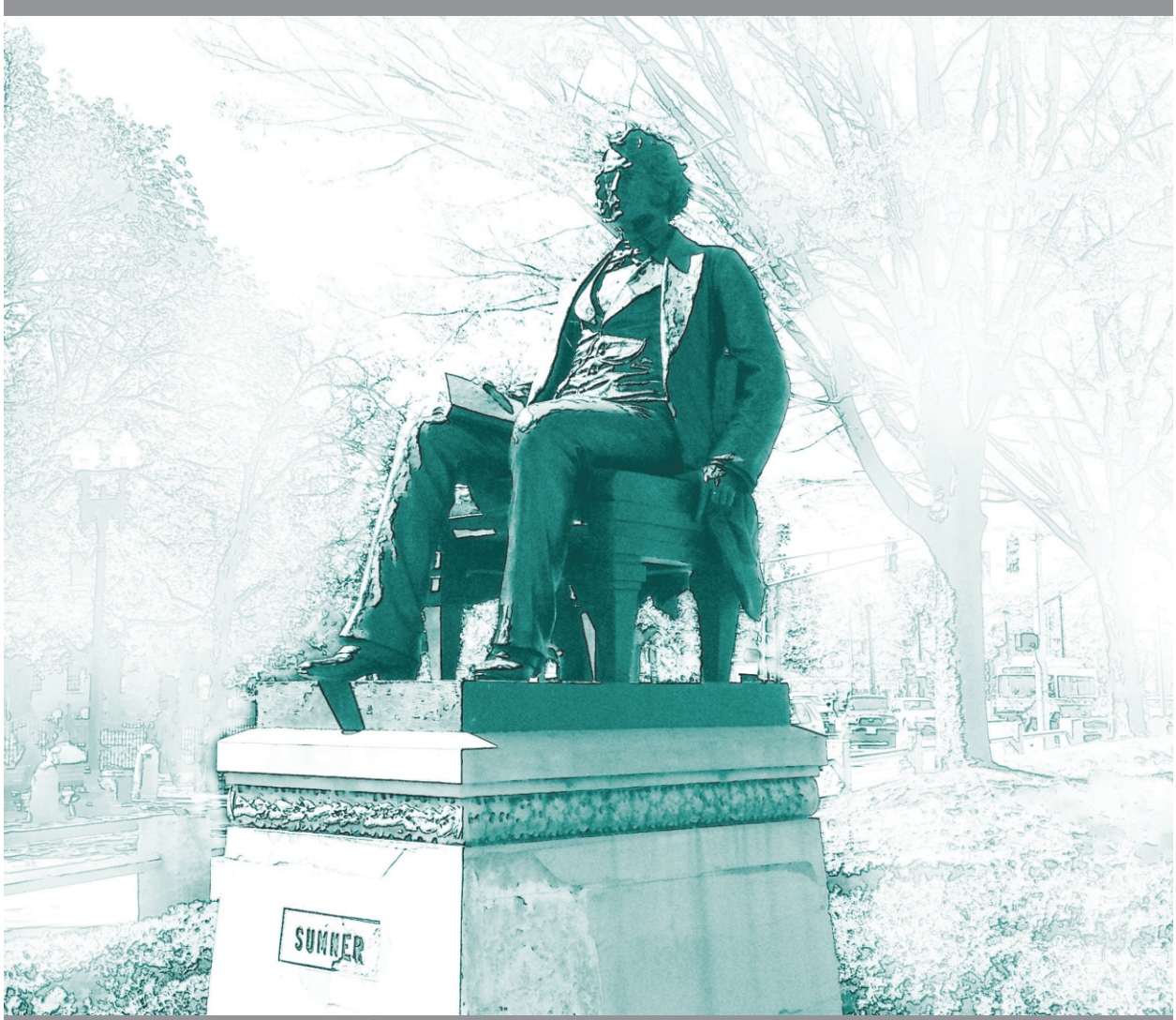


Volume 15, Number 12 December 25, 2019 ISSN:1545-1003

# Journal of American Science



 **MARSLAND PRESS**  
Multidisciplinary Academic Journal Publisher

Websites:  
<http://www.sciencepub.net>  
<http://www.jofamericanscience.org>

Emails:  
[editor@sciencepub.net](mailto:editor@sciencepub.net)  
[editor@americanscience.org](mailto:editor@americanscience.org)  
[americansciencej@gmail.com](mailto:americansciencej@gmail.com)

# Journal of American Science

Marsland Press  
39-06 Main Street, #1608,  
Flushing, NY 11354, USA

Websites:  
<http://www.sciencepub.net>  
<http://www.jofamericanscience.org>

Emails:  
[editor@sciencepub.net](mailto:editor@sciencepub.net)  
[editor@americanscience.org](mailto:editor@americanscience.org)  
[americansciencej@gmail.com](mailto:americansciencej@gmail.com)

Telephones:  
(718) 404-5362; (347) 321-7172

Cover design: CAO,Zhaolong; MA,Hongbao  
Photograph: YOUNG,Mary

Copyright © 2019 Marsland Press

