

AN EDITORIAL
FROM
CORLETT WOOD

AND

CONTRIBUTING PAPERS
FROM

Benjamin Brady
Department of History
University of Virginia
Charlottesville, Virginia, USA

Billy O'Steen & Lane Perry
College of Education
University of Canterbury
Christchurch, New Zealand

John T. Yates, Jr.
Department of Chemistry
University of Virginia
Charlottesville, Virginia, USA

Pauline Oliveros
Department of Music
Rensselaer Polytechnic Institute & Mills College
TROY, NY, USA & OAKLAND, CA, USA

JEFFERSON SCHOLARS FOUNDATION
112 CLARKE COURT
P.O. BOX 400891
CHARLOTTESVILLE, VA, 22904-4891

WWW.JEFFERSONJOURNAL.ORG

JEFFERSON JOURNAL OF SCIENCE AND CULTURE

2

*The scholarly publication from
Jefferson Scholars Foundation*

Issue 2 • July 2012

“To see differently in this way for once, to want to see differently, is no small discipline”

JEFFERSON JOURNAL OF SCIENCE AND CULTURE

*The scholarly publication from
Jefferson Scholars Foundation*

Issue 2 • July 2012

“To see differently in this way for once, to want to see differently, is no
small discipline”

copyright © 2012 by the Jefferson Scholars Foundation at the University of Virginia

JEFFERSON JOURNAL OF SCIENCE & CULTURE
Jefferson Scholars Foundation
112 Clarke Court
P.O. Box 400891
Charlottesville, VA, 22904-4891
jeffersonjournaluva@gmail.com
www.jeffersonjournal.org

Printing by Lulu.com

Editor-in-Chief
Matthew D. Lerner

Content Editor
Doug Trout

Production Editor
Trigg Brown

Associate Editor
Natural Sciences
Corlett Wood

Associate Editor
Social Sciences
Hillary Schaefer

Associate Editors
Arts & Humanities
Lanier Sammons
& Sarah O'Halloran

Editorial Consultants
Adam Winck
Andrew Kennedy

Editorial Board
Arthur Schulman
Turk McClesky

Contributing Editors

Vilde Aaslid
Terra Baile
Jill Baskin
Jacob Bennett
Matthew Birkhold
Heather Bowlby
Noah Britton
Tony Byers
Emily Charnock
Gabriel Cooper
Joseph D'Agostino
Eric R. Dorman
Chelsea Finn
Daniel Finn
Daniel Fried
Laura Goldblatt
Katherine Goss
Jameson Graber
Anne Guarnera
Adam Hughes

Jeffrey Hulbert
Allison Jack
Reed Johnson
Verena Kollig
Matthew Lockaby
Jared McGinley
Gaby Miller
Eglantine Morvant
Rachel Mulheren
Jason Pan
Harold Reeves
Justin Rose
Lanier Sammons
Brian Sanderson
Julia Schroeder
Benjamin Shestakofsky
Adriana Streifer
Ryan Stoner
Stacie Thyrión
Siny Tsang
Adam Wells

The Jefferson Journal of Science and Culture was founded on the belief that the cross-pollination of various disciplines will be a crucial factor in the advance of scholarship. To facilitate and focus such exchange, this annual journal is dedicated to publishing articles in each edition which address a specific topic of broader interest. Scholars from various fields are expected not to dispense with the robes of their specialty, but to allow their disciplinary expertise to make an impact beyond its customary bounds.

<http://jeffersonjournal.org>

Editorial

Corlett Wolfe Wood
Jefferson Scholars Foundation
University of Virginia
Charlottesville, VA, USA

“THE REAL VOYAGE OF DISCOVERY,” MARCEL PROUST WROTE, “CONSISTS NOT IN SEEKING NEW LANDSCAPES, but in having new eyes.” At the crux of this observation is the essence of interdisciplinary thinking: it affords fresh perspective on the familiar. Individual academic disciplines are often defined nearly as much by their indigenous perspective as they are by a subject of study. One of the primary strengths of interdisciplinary dialogue, then, is its capacity to infuse even a thoroughly explored topic with novel insight. With this in mind, the Jefferson Journal of Science and Culture was conceived as a forum that encourages the diffusion of perspectives across rigid departmental boundaries.

The topic of this issue of the Jefferson Journal of Science and Culture is Births and Origins. Here, authors from disparate disciplines – history, education, chemistry, and music – offer four narratives of the process of origination. Through their eyes, we explore the birth of a societal institution, follow the development of a single idea, trace the history of a scientific field of study, and experience the evolving influence of technology on musical composition.

In the first paper, Benjamin Brady examines the birth of the dog pound as an institution in nineteenth-century New York City, a society in the throes of political and cultural change. The pound, which arose to control loose dogs in an increasingly urban environment, is illustrative of the broader struggle between patronage, personified in corrupt dog-catchers, and the professionalism of the nascent SPCA. The rise of the pound becomes a lens that Brady uses to focus broader contemporary societal battles such as the politics of local government and the influx of immigrants.

In the second paper, Billy O’Steen and Lane Perry explore the genesis of a single idea in the field of education. In the recovery effort following the 2010 and 2011 New Zealand earthquakes, a university implemented a service-learning course, a pedagogical style that was functionally non-existent prior to the quakes. O’Steen and Perry delve into the life cycle of innovation, examining the factors that foster the origin, diffusion, and acceptance of new idea. Their case study tracks the concept of service-learning in New Zealand, at each step presenting a focused analysis of the cultural elements integral to the progression from birth to maturity.

In the third paper, John T. Yates, Jr. offers an historical perspective on an influential scientific field of study: the chemistry of catalysts and their active sites. Catalysts, which speed up chemical reactions by bringing reagents into close physical association, are central to innumerable daily processes, and have a long history of scientific exploration. Yates traces theoretical and empirical work on the chemistry of catalysis, providing a solid grounding in the mechanics of catalytic reactions while contextualizing what we know now in the past.

In the final paper, Pauline Oliveros analyzes the relationship between musicians and technology through the technological revolutions of the twentieth and twenty-first centuries. As a composer who experienced most of the major transitions from the advent of radio to the computerization of music in present day, Oliveros guides us through her own compositions with an eye to the specific electronics that influenced and facilitated their production.

Each of these contributions offers a unique perspective on the process of origination. All are inherently synthetic, using a novel vantage point to address a familiar question, or vice versa. Fundamentally, these papers are all origin narratives, each witnessing and lending interpretation to a different birth. With that in mind, I invite you to peruse the contents of this issue of the Jefferson Journal of Science and Culture, with a fresh eye to the geography of your own intellectual heritage.

CONTRIBUTORS

Benjamin Brady

The Politics of the Pound:
Controlling Loose Dogs
in Nineteenth-Century New York City 9

Billy O'Steen and Lane Perry

Born from the Rubble:
The Origins of Service-Learning in New Zealand
and an Expansion of the Innovation Diffusion Curve 27

John T. Yates, Jr.

The Search for the Active Site on Catalysts 35

Pauline Oliveros

Reverberations: Eight Decades 41