

Teachers as Scholars (TAS) Seminars 2015

Spring 2015

Is Television Bad for You?

Christine Becker

April 14th and 21st

Banned US Latino/a Literature

Marisel Moreno

February 2nd and 9th

The Gospels and the Galilean Jesus

Timothy Matovina

January 30th and February 9th

Using Psychological Science to Improve Math Education

Nicole McNeil

January 29th and February 26th

Fall 2015

The Making of Contemporary Art

Maria Tomasula

Date TBA

The Italian Renaissance as Multimedia Event

Margaret Meserve

Date TBA

Galileo and the Church: Exploring Faith and Reason

Thomas Stapleford

Date TBA

Exploring the Microbial Jungle: An Introduction to Biofilms

Robert Nerenberg

Date TBA

Seminar Descriptions

Spring 2015

Title: Is Television Bad For You?

Programs like *Mad Men*, *Louie*, and *The Daily Show* lead some to argue that we are in a Golden Age of television, even an era when TV's offerings have never been better. Conversely, *The Real Housewives*, *2 Broke Girls*, and sensationalized cable news drive others to lament that television has never been worse. Beneath both perspectives lies a fundamental question: is television good or bad for society? Does "bad TV" harm American culture? Does "good TV" bolster a society? Either way, how are we to determine what TV is good and what TV is bad? This seminar interrogates cultural assessments of American television, particularly investigating fears that the medium is detrimental to society, as well as hopes that it offers benefits that other media forms cannot. Through reading media studies theory and journalistic

analysis, examining television programs, and exploring cultural assumptions and norms, this course will work through an appraisal of television's power and impact today.

Biography:

Christine Becker is Associate Professor in the Department of Film, Television, and Theatre at the University of Notre Dame specializing in film and television history and critical analysis. Recent courses include Media Industries, Television as a Storytelling Medium, History of Television, Basics of Film and Television, and Media Stardom and Celebrity Culture. Her book, *It's the Pictures That Got Small: Hollywood Film Stars on 1950s Television* (Wesleyan University Press, 2009), won the 2011 IAMHIST Michael Nelson Prize for a Work in Media and History. She is currently working on a research project comparing contemporary American and British television production and programming.

Title: Banned US Latino/a Literature

The 2012 termination of the Mexican-American Studies courses by the Tucson Unified School District (AZ) has provoked a national debate regarding the importance of ethnic studies in our schools, from the primary to the high school levels. While each side—proponents of the law and defenders of ethnic studies—continue to argue their case, dozens of literary works by canonical authors have been banned and the books removed from the classrooms. From Shakespeare's *The Tempest* to *Drown* by Pulitzer-Prize winner and Dominican-American author Junot Díaz, the list of books "removed" from classrooms reveals that what is at stake is more than just the future of Mexican-American studies. In this seminar, we will examine the present controversy surrounding HB 2281, grassroots movements that have emerged in response to it, and a number of the canonical US Latino literature works that were placed on the list of banned books, such as selected stories by Tomás Rivera (Chicano), Sandra Cisneros's *House on Mango Street* (Chicana), selected poems by Luis Rodríguez and US Puerto Rican Martín Espada. Readings from Juan González's *Harvest of Empire* will provide some of the historical, political, social, and economic background information. Readings will be supplemented with films that will foster a more profound understanding of the literature studied.

Biography:

Prof. Marisel Moreno was born and raised in Puerto Rico. She attended college in Philadelphia, and lived in Washington D.C. before coming to South Bend in 1998. She teaches US Latino Literature and Culture as well as courses on modern Latin American literature in the department of Romance Languages and Literatures at the University of Notre Dame. In 2011 she received the Indiana Governor's Award for Service-Learning for her courses "Migrant Voices: US Latino/a Literature Through Service-Learning" and "Race and Ethnicity in US Latino/a Literature and Community Based Learning." She is a pioneer in the implementation of CBL pedagogy in upper-level Spanish literature courses at Notre Dame. Since Fall 2010, she has taught 9 consecutive courses on US Latino/a literature and CBL in partnership with La Casa de Amistad, where her students volunteer. As of May 2014, her students had completed over 4,000 hours of service at La Casa de Amistad. Prof. Moreno's first book, *Family Matters: Puerto Rican Women Authors on the Island and the Mainland*, was published by the University of Virginia Press in 2012. Her teaching and research interests include US Latino/a literature (with a focus on the Caribbean), Afro-Latinos/as, immigration, diaspora, and community-based learning.

Title: The Gospels and the Galilean Jesus

For generations Jesus of Nazareth has inspired artists, writers, Christian believers, and, more recently, filmmakers. This workshop will consider two critical elements of the experience and memory of Jesus: the development of the Gospels and select contemporary reflections on Jesus and his meaning for today. Based primarily on passages from the Bible itself, the first session will examine the formation of the Gospels from historical events in the life of Jesus to the church's acceptance of Matthew, Mark, Luke, and John as the official canonical Gospels some four centuries later. The second

session will focus primarily on Virgilio Elizondo's *Galilean Journey: The Mexican American Promise* (Orbis, 2000), which presents what theologian Jacques Audinet has called "a cultural rereading of the gospels, and a gospel rereading of cultural dynamics." Engaging this text as an exemplar of contemporary efforts to discern the significance of the Gospels for our times, we will reread the gospel in light of Mexican American history and culture, exploring the Galilean background of Jesus and its implications for our pluralistic world. Finally, we will end the workshop by viewing and discussing a documentary film on Jesus movies from the dawn of cinematography to the late twentieth century.

Biography:

Timothy Matovina is the Professor of Theology and Executive Director of the Institute for Latino Studies at the University of Notre Dame. He works in the area of Theology and Culture, with specialization in U.S. Catholic and U.S. Latino theology and religion. Professor Matovina has written or edited 16 books and authored over 100 essays and reviews in scholarly and opinion journals. Research support for Matovina's work encompasses competitive grant awards from nearly every major funding source that supports academic work in theology and religion, including the National Endowment for the Humanities, the American Academy of Religion, the Louisville Institute, and the Association of Theological Schools. Among his various scholarly awards, in 2010 Matovina received the Virgilio Elizondo Award "for distinguished achievement in theology, in keeping with the mission of the Academy" from the Academy of Catholic Hispanic Theologians of the United States (ACHTUS). At Notre Dame he has won two teaching awards, including the Julian Samora Award that members of Notre Dame's La Alianza student organization confer on a faculty member whose research, teaching, and service advance knowledge and empowerment of Latino/a students and communities. He has also won twelve book awards, including five for his most recent book, *Latino Catholicism: Transformation in America's Largest Church*, which was selected as a CHOICE "Outstanding Academic Title" for 2012. In addition to his scholarly work, Matovina offers presentations in English and Spanish to teachers and pastoral leaders throughout the United States.

Title: Using Psychological Science to Improve Math Education

Success in mathematics opens doors for future educational and employment opportunities. Thus, it is important for all students to be provided with the tools they need to succeed in math. Improving math education is not only a moral imperative, but also a matter of national concern. Indeed, a recent report estimates that our students' poor achievement in math will cost our country 75 trillion dollars over the next 80 years. Psychological science has a vital role to play in the improvement of math education. Basic research in cognitive psychology, developmental psychology, and the learning sciences provide a strong empirical basis for understanding the factors that affect student learning, particularly in mathematics. The knowledge gained from this research has important implications for educational practice. In this seminar, we will explore how the concepts, principles, and processes of human cognition, learning, and development have the potential to improve and enrich mathematics education. We will discuss topics such as the importance and accessibility of basic research in psychology and will consider specific empirical findings that are relevant to teaching and learning mathematics. Topics covered include the role of gesture in the learning process, how different ways of presenting mathematical information affect student learning, what we can learn from international differences in math and science achievement, and strategies for encouraging girls in math and science.

Biography:

Nicole McNeil is the ACE Associate Professor of Psychology and the Director of the Interdisciplinary Minor in Education, Schooling, and Society (ESS) at Notre Dame. She also directs the Cognition, Learning, and Development (CLAD) Lab at Notre Dame. She and her research team study cognitive development, with a primary focus on how children think, learn, and solve problems in the domain of mathematics. She is regularly invited to speak at universities around the country, and publishes in the top journals in her field, such as *Child Development* and *Journal of Educational Psychology*. Her current research on children's understanding of mathematical equivalence is supported

by grants from the Institute of Educational Sciences (IES) and the National Science Foundation (NSF). McNeil is the recipient of the 2013 Boyd McCandless Award, an early career award given by the American Psychological Association (APA) for distinguished contributions to developmental psychology. She also received the 2007 Presidential Early Career Award for Scientists and Engineers (PECASE), the U.S. government's highest honor recognizing scientists who are at the outset of their careers. A fellow of Notre Dame's Institute of Educational Initiatives, McNeil is committed to using research in psychology to improve teaching and learning in pre-K-12 schools. You may have seen some of her recent research spotlighted in a "What Would You Fight For?" commercial during halftime of a Notre Dame football game last year.

Fall 2015

Title: The Making of Contemporary Art

Why does contemporary art look the way it does? In this seminar we will consider this question by examining how local, regional, and global conditions have generated the spectrum of forms that characterize contemporary visual art. We will engage in a multiple approach through readings, lectures, discussions, and a visit to a preeminent print studio that produces art by some of the world's best-known contemporary artists. We will begin with a macro-level overview of the changes Modernity and modernization brought about in people's lives and how those changes in the economic, technological, political, and social spheres constituted the historical context that gave rise to the art produced in our time. We'll then narrow our focus and concentrate on specific contemporary art works, discussing a diverse range of forms thematically grouped under topics like *Science*, *Spirituality*, and *the Body*. We'll consider artists like Jeff Koons, who oversees an immense workshop of painters and sculptors that make his work (and whose work is liked and loathed in seemingly equal measure), as well as artists like Kara Walker, whose provocative works continue to draw praise and protest. Finally, we will pinpoint our focus on the material production of a single work of art by visiting the Segura Arts Studio to see how an image—in this instance, a print—comes to take shape from initial conception to final physical form. In the process, we'll explore what the works we study have to tell us about what it is to live in the globalized 21st century.

Biography:

Maria Tomasula is the Michael P. Grace professor of Art in the Department of Art, Art History & Design at the University of Notre Dame. She is a painter whose work has been shown in over 100 exhibitions, including at the Aldrich Museum of Contemporary Art, The Pennsylvania Academy of Fine Arts in Philadelphia, The National Museum of Mexican Art in Chicago, The Indianapolis Museum of Contemporary Art, and many other national and international venues. She is represented by Zolla/Lieberman Gallery in Chicago and Forum Gallery in New York; her work has been written about in numerous publications including *The New York Times*, *ARTnews*, and *The New Yorker*.

Title: The Italian Renaissance as Multimedia Event

The Italian Renaissance (roughly 1400-1600) was a glittering chapter in European history, a period of brilliant discoveries, intellectual ferment, and astonishing cultural creativity. It's best known today for the extraordinary art and architecture it produced, from Michelangelo's *David* to Palladio's villas, *the Birth of Venus* to *Vitruvian Man*. Indeed many Renaissance masterpieces seem to have escaped the bounds of their historical contexts altogether, becoming iconic images endlessly reproduced from T-shirts to fridge magnets to high-end advertisements, famous precisely for being famous. At the same time, the actual history of the Renaissance remains a mystery for many. Whether it's Dan Brown conjuring tales of secret societies and underground conspiracies, or big-budget movies and video games creating a world of sinister violence and repression, the political history of the Renaissance seems as murky as its artistic heritage is clear.

This seminar will explore both aspects of the Italian Renaissance -- first, the cultural movement of five hundred years ago in its full historical context, including the constant interaction between politics and culture, money and fame, violence and beauty that characterized the period. Second, we'll consider the image of the Renaissance that holds true in modern culture: why does the Renaissance remain so fascinating while still so incompletely understood? And what do contemporary uses (and abuses) of Renaissance culture say about our own understanding of creativity, the relationship between the artist (or scientist) and society, and the nature of political power? Last, this seminar will ask some pedagogical questions about the use of modern cultural artifacts in the teaching of history. How can we as teachers best deploy modern multimedia, from virtual tours to video games, YouTube clips and internet memes, to bring the past alive for students while also honing their critical skills?

Biography:

Margaret Meserve, Associate Professor of History, received her BA in Classics from Harvard and an MA and Ph.D. in Renaissance History from the Warburg Institute, University of London. At Notre Dame she teaches courses on the Italian Renaissance, the history of Rome from the Middle Ages to the 19th century, Italian social history, and the history of travel and exploration. She is the author of the prize-winning *Empires of Islam in Renaissance Historical Thought*, as well as numerous articles on anti-Turkish polemics in the Renaissance; European knowledge of Asia in the centuries after Marco Polo; and the printing of news and political information in early modern Italy. She has authored an English translation of the only autobiography ever written by a sitting pope (the *Commentaries* of Pope Pius II) and was historical consultant for the video game *Assassin's Creed II*.

Title: Galileo and the Church: Exploring Faith and Reason

In 1633, Galileo Galilei was condemned as a heretic by the Roman Inquisition for asserting that the Earth revolved around the Sun, a claim that theologians dismissed as contrary to Scripture. Today, this episode embarrasses many Catholics and seems to exemplify what has been called the "warfare between science and theology." Yet the events leading to Galileo's condemnation were more complex than they might appear. Rather than being a simple case of faith vs. reason, the trial was awash in political intrigue, legal maneuvering, accusations of forgery and procedural errors, theological disputes, and thorny philosophical debates about the reliability of scientific knowledge and the truth of Galileo's claims. In this course, you will have the chance to examine the evidence firsthand -- including letters, books, and trial records from the Vatican archives -- and to make your own judgment about the causes of Galileo's conflict with the Church and what it can tell us about the relationship between faith and reason.

Biography:

Tom Stapleford is Associate Professor in the Program of Liberal Studies, Notre Dame's "Great Books" program for undergraduates. Trained as an engineer, he earned a masters degree in Artificial Intelligence before pursuing his doctoral studies in the history of science at Harvard University. Since coming to Notre Dame in 2003, he has regularly taught courses on the Scientific Revolution (including Galileo) that help students explore the tangled relationships between science, philosophy, and theology. A recipient of a 2014 Joyce Award for Excellence in Undergraduate Teaching, Stapleford is also a member of Notre Dame's Graduate Program in the History and Philosophy of Science, where his research interests include the history of the human sciences, the integration of expertise into democratic governance, and the intersection of science and religion.

Most of Prof. Stapleford's published work explores the history of economics and American political economy. He is the author of *The Cost of Living in America: A Political History of Economic Statistics* (Cambridge, 2009) and co-editor of *Building Chicago Economics* (Cambridge, 2011). He has been awarded two major grants from the National Science Foundation, is a past winner of the Dorfman Prize from the History of Economics Society, and was a Visiting Scholar at the American Academy of Arts & Sciences in Cambridge, Mass. He is currently working on a new project that examines the virtues (intellectual and behavioral dispositions) that are necessary for the proper use of scientific expertise within a liberal democracy.

Title: Exploring the Microbial Jungle: An Introduction to Biofilms

Biofilms are layers of microorganisms embedded in a self-produced, gel-like matrix. Biofilms are the dominant mode of microbial growth in the natural environment, and play a positive role in nutrient cycling and pollutant biodegradation. They also are increasingly used in engineered water and wastewater treatment systems. While biofilms play many positive roles, they also can be detrimental. For example, they can display enhanced antibiotic resistance in infections, harbor pathogens in water transmission mains, and cause fouling in membrane filtration systems. Given the important and often complex role of biofilms, biofilm science and engineering is becoming an increasingly important field of research.

A distinguishing feature of biofilms is the presence of gradients, leading to formation of microbial niches. Examples include gradients in substrate (food) concentrations, pH, and toxic compounds. The close proximity of different species allows for commensal relationships, where bacteria “work in teams” to degrade substrates. Biofilms have also been found to display social behavior, with cell-to-cell communication (quorum sensing) and antagonistic behavior, like the release of toxins to inhibit competitors. Thus, biofilms are often complex ecosystems with high levels of competition, trophic interactions, and biodiversity.

This seminar will provide an overview of biofilms, their differences with suspended growth systems, and their importance in natural, clinical, and technological systems. A review of research techniques will be provided, including a demonstration of simple lab systems and a primer on computer-based biofilm modeling.

Biography:

Robert Nerenberg is an associate professor and Director of Graduate Studies for the department of Civil and Environmental Engineering and Earth Sciences at the University of Notre Dame. He obtained his Ph.D. in environmental engineering from Northwestern University, and his B.S. in Civil Engineering from the University of Buenos Aires, Argentina. He worked as a consultant at Harza Engineering Company from 1993 - 1997, and was a visiting professor at the Swiss Federal Institute for Aquatic Science and Technology in Switzerland, and at the Pontifical Catholic University in Chile. Dr. Nerenberg has received several awards for his research, including NSF CAREER Award for his project “Dynamic Structure and Function of Biofilms for Wastewater Treatment” in 2010, and the Paul Busch award from the Water Environment Research Foundation in 2012. His research centers on innovative biofilm processes for water and wastewater treatment.