



Robert and
Colleen
Haas Scholars
Program

2019

Twentieth Annual
Spring Research Conference

Thursday, January 17th

Friday, January 18th

Bancroft Hotel

disrupting:
daring to
reimagine

Welcome! In choosing their conference theme, the 2018-2019 Haas Scholars, the program's 20th cohort, celebrate this important milestone by echoing the central graphic used by the very first cohort. They build on this proud history and the established foundation of knowledge in each field, but also dare to question, reimagine, and even disrupt, contributing essential new understandings and solutions to a world that desperately needs them.

PHOTOGRAPHY EXHIBITS:

The Ruins of Marin
Sebastian Herics

Inside the Lab
Andre Lai

al-Balqa, Jordan
Mathew Madain

Moment, Memory, and Research
Lulu Matute

Women of Etruria:
Silent No More
Micaela Shonafelt

Living with Loss in Ciudad Juárez
Raúl Varela

FILM SCREENING JANUARY 18

Fighting to Not be Forgotten:
25 Years of Feminicides
in Ciudad Juárez

THURSDAY, JANUARY 17

Great Hall, Bancroft Hotel

8:30–9:00

Welcome and Coffee

9:00–10:30

Image, Power, and Reality: Romantic Relationships, Sex Work, and the Silenced Women of Roman History

Chair: Iris Mauss, Psychology

Grace Allison (Psychology major)

Perceiving is Believing: Impact of Partner Perceptions of Suppression in Romantic Relationships

Faculty Mentor: Iris Mauss, Psychology

Raven Deverux (Sociology major)

Sex Work and Labor Power

Faculty Mentor: Mary Kelsey, Sociology

Micaela Shonafelt (Classical Civilizations major)

Silent No More: Giving Voice to the Women of Etruria

Faculty Mentor: Lisa Pieraccini, History of Art

10:45–12:15

Uncovering Communal Memories:

The Great War, the Cold War, and Feminicide

Chair: Margaretta Lovell, History of Art

Mathew Madain (History, Global Studies, and Near Eastern Studies major)

Minorities in the Crossfire: World War I and the Crisis of Jordan's Christians

Faculty Mentor: Maria Mavroudi, History and Classics

Sebastian Herics (American Studies major)

Missile Memories: Preservation and the Ethics of Narrative

Faculty Mentor: Margaretta Lovell, History of Art

Raúl Varela (Anthropology major)

Fighting to Not Be Forgotten: 25 Years of Feminicides in Ciudad Juárez

Faculty Mentor: Raymond Telles, Ethnic Studies

12:30–1:30

Lunch, Great Hall, Bancroft Hotel

1:45–2:45

From Lab to Clinic: Small Devices for Large Impact

Chair: Ana Arias, Electrical Engineering & Computer Sciences

Andre Lai (Bioengineering major, Electrical Engineering & Computer Sciences minor)

A High-Throughput Microfluidic Device for Single Cell Isolation and Analysis

Faculty Mentor: Aaron Streets, Bioengineering

Jasmine Jan (Bioengineering major, Electrical Engineering & Computer Sciences minor)

Printed Optoelectronic Devices for Point-of-Care Biomarker Sensing

Faculty Mentor: Ana Claudia Arias, Electrical Engineering & Computer Sciences

3:00–4:30

Resisting Criminalization: Brown Bodies, Carcerality, and Border Politics

Chair: Victoria Robinson, Ethnic Studies and American Cultures

Lissa García (Ethnic Studies major, Education minor)

Border Performativity and Transfronterix Students

in the Tijuana-San Diego Border Region

Faculty Mentor: Cristina Mora, Sociology

Nancy Rubio (Chicano/a Studies major)

Programming without Policing:

Latinx Youth and Alternative Education in Watsonville, CA

Faculty Mentor: Victoria Robinson, Ethnic Studies and American Cultures

Lulu Matute (American Studies major)

Mothers, Sisters as Commodities for American Free Trade:

Forced Expulsion and Criminalization of Honduran Women and Girls

Faculty Mentor: Victoria Robinson, Ethnic Studies and American Cultures

FRIDAY, JANUARY 18

Great Hall, Bancroft Hotel

10:00–10:30 **Welcome and Coffee**

10:30–12:00 **Exploring Our World from Large to Small: Dark Matter and Quantum Materials**

Chair: Karl van Bibber, Nuclear Engineering

Dan Ferenc-Segedin (Physics major)

Phase Coexistence in Multiferroic BiFeO₃

Faculty Mentor: Ramamoorthy Ramesh, Physics

Caolan John (Physics major)

Controlling Magnetic and Electronic Properties of Intercalated Transition Metal Dichalcogenides

Faculty Mentor: James Analytis, Physics

Nicholas Rapidis (Physics major)

A Search for Cosmological Signatures of the Axion

Faculty Mentor: Karl van Bibber, Nuclear Engineering

12:00–1:00 **Lunch, Great Hall, Bancroft Hotel**

1:00–2:00 **Understanding Causes, Imagining Solutions: Roots of the Rural Opiate Epidemic and K-12 Ethnic Studies Experiences and Possibilities**

Chair: David Harding, Sociology

Andrea Ramírez (Sociology major, Chicano/a Studies minor)

Blossoming in Knowledge Through Understanding Suppressed Roots

Faculty Mentor: David Harding, Sociology

Rebecca Forbes (American Studies major)

Understanding the Roots of Opioid Abuse in Small Town Tuolumne County

Faculty Mentor: Nathan Sayre, Geography

2:15–3:15 **Solving the Brain's Mysteries: Neural Mechanisms and Health Challenges**

Chair: Yang Dan, Molecular & Cell Biology

Mohammad Saffari Doost (Integrative Biology major)

Identification of Neural Circuits Coordinating Sleep and Cardiovascular Regulation

Faculty Mentor: Yang Dan, Molecular & Cell Biology

Caleb Choy (Molecular & Cell Biology major)

The Role of CD44 and Src Kinases on Aggressive Motility in Glioblastoma

Faculty Mentor: Sanjay Kumar, Bioengineering

3:30–4:30 **Bridging Past and Present Practices: from Ohlone Fish Harvesting to Haitian Transnational Migration**

Chair: Kent Lightfoot, Anthropology

Ariadna Gonzalez (Anthropology major)

Ancient Fisheries of the San Francisco Bay Area: Perspectives from the West Berkeley Shellmound

Faculty Mentor: Kent Lightfoot, Anthropology

Celene Bolaños (Development Studies and Latin American Literatures major, Food Systems minor)

Haitian Migration Across the Americas: Patterns, Trajectories and Implications

Faculty Mentor: Claudia Carr, Environmental Science, Policy & Management

4:45–5:30 **Film Screening: Fighting to Not Be Forgotten:**

25 Years of Feminicides in Ciudad Juárez

Raúl Varela (Anthropology major)

Moderator: Raymond Telles, Ethnic Studies

ROBERT & COLLEEN
Haas Scholars

UNIVERSITY OF CALIFORNIA BERKELEY

A SENIOR CAPSTONE EXPERIENCE FOR ALL MAJORS



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