

MESA STATE COLLEGE

GRAND JUNCTION, COLORADO



SHOWCASE PROGRAM

Wednesday, April 28, 2010



MESA STATE COLLEGE STUDENT SHOWCASE PROGRAM



**Wednesday, April 28, 2010
Grand Junction, Colorado**

Student Showcase Planning Committee

Andres Aslan, Physical and
Environmental Sciences
Jennifer Barton, Academic Affairs
Julie Bruch, Languages, Literature
and Mass Communication
Adele Cummings, Social and
Behavioral Sciences
Carol Futhey, Academic Affairs
Suzie Garner, Art
Alma Jackson, Health Sciences
Luis Lopez, Languages, Literature
and Mass Communication
Cindy Lueb, Sponsored Programs
Bill McCracken, Manufacturing
Technology, Western Colorado
Community College
Jessica Oviatt, Academic Affairs
Deborah Parman, Business

About the Student Showcase

The Student Showcase highlights student works involving creativity, discovery, research, innovation, and/or entrepreneurship through sessions by undergraduates at Mesa State College and Western Colorado Community College. The Student Showcase builds on classroom experience and is a venue where students can share their work with faculty, student peers, and community members. Students participating in this campus-wide forum have distinguished themselves as scholars. The sessions' abstracts are published in the *Showcase Proceedings*.

Category Legend

Fine & Performing Arts	FPA
Sciences	SCI
Mathematics, Computer Science, & Mechanical Engineering.....	MCSME
Mechanical Engineering - First Year Design Expo	ME
Professional Programs.....	PP
Languages, Literature, & Social Sciences	LLSS
Career & Technical Programs	CTP

Building Key

Academic Classroom Building	ACB
Fine Arts Building	FA
Grand Mesa Hall, Multi-purpose Room	GMH MPR
Moss Performing Arts Center	MPAC

AWARDS CEREMONY

Recital Hall	MPAC	5:30
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CAREER & TECHNICAL PROGRAMS (CTP)

Faculty Facilitator: Bill McCracken

Title, Location	Time	Page #	Student(s)
Excelling in Culinary Competition			
Academic Quad	3:15	34	Andy Fitzgerald, Brittini Haberkorn, Jon Eric Hart, John Heidemen, Tony Ridgway, Lyndi Wellman, and Nick Winden
Lockdown Alert Network (LAN)			
Academic Quad	3:30	16	Cy Dinnel, Garrett Jenson, Don Latner, and Wade Sullivan
Stirling Engine Generator			
Academic Quad	3:45	17	Justin Craig, Darryl Divinny, and Jay Glenn
8'x10' Storage Shed			
Academic Quad	4:00	32	Tyler Aksztulewicz, Dylan Dobbins, Jorge Ochoa, Michael Shaeffer, Christopher Stone and Jacob Tribble,
Sustainability			
Academic Quad	4:15	11	Jeremy Bro, Donald M. Cardin, John T. Neebling and Kyle D. Sellers
Crossed Sabre Gunsmithing			
ACB 217	4:30	34	Jennifer Bowden, Christina Bruch, Courtney De Mers, Candace Ebersohl, Amber Malone, Marcia Parker, Rosalie Pinney and Jessica Trump

The page number refers to the *Showcase Proceedings* booklet.

FINE & PERFORMING ARTS (FPA)

TRACK A - Faculty Facilitator: Darin Kamstra

Title, Location	Time	Page #	Student(s)
Brick: A Music Video			
MPAC 139	3:00	14	Aaron Clymer
Shotgun Blues			
MPAC 139	3:15	20	Jason Franklin
Art History: New York Trip			
MPAC 139	3:30	15	Natalie Corbet and Laura Nichols
"On That Note..."			
MPAC 139	3:45	12	Scot Cahoon, Kyle Cooper, Joey Côté and Lane Heinz
The Structure and Inspiration of Journey Through Dreams			
MPAC 139	4:00	25	Lynnsey Lambrecht
A Performance of Vivaldi/Giacomellis Aria: Sposna Son Disprezzata			
MPAC 139	4:15	8	Miriam Arnol-Martin
Toccatà			
MPAC 139	4:30	23	Lauren Atkinson, Jack Chipchase, Morgan Gagliardi, Daniel Hurshman, Apryl Ott and David Tarr

FINE AND PERFORMING ARTS (FPA)

TRACK B - Faculty Facilitator: Suzie Garner

Title, Location	Time	Page #	Student(s)
Lithography Printmaking			
FA 201	3:00	9	Taylor Bisbee
The Fabric of Life - A Fibers Showcase			
FA 202	3:30	23	Jessica Geddes and Maro Hager
The Ease of Working From Grey			
FA 211	3:15	24	Jeffrey Johnson
Beau Tube Productions			
FA 303	4:45	21	Timothy Ball, Richard Giglio, Josh Graham and Molly McGrath
Line Blend and Triaxle Experiment			
FA Lobby	3:45 - 4:30	25	Sheri L. Brittingham, James Caddy, Brittany L. Combs, Krista N. Davis, Cassinda Ferguson, Jacob M. Franck, and Kristina King
Nemus Procul Porta o Vicis Quod Ruina			
FA Lobby	3:45 - 4:30	11	Jacob Cady
A Simple Sculpture			
FA Lobby	4:00 - 4:30	29	Stephanie Nesbit
Keys			
FA Lobby	4:00 - 4:30	30	Laura Nichols
Thrown Assemblage			
FA Lobby/111	3:45 - 4:30	10	Taylor Bisbee
Alexander Mug			
FA Lobby/111	3:45 - 4:30	19	Cassinda Ferguson
Simulated Ink and Stone			
FA Lobby/111	3:45 - 4:30	25	Tor Larson
Untitled			
FA Lobby/111	3:45 - 4:30	29	Fran Morales
The Wild			
FA Lobby/111	3:45 - 4:30	33	Sam Small

LANGUAGES, LITERATURE & SOCIAL SCIENCES (LLSS)

TRACK A - Faculty Facilitator: Julie Barak

Title, Location	Time	Page #	Student(s)
Comparing American Poets of the Modern Age			
ACB 110	3:00	13	Cheryl Capshaw, Mike Peckham and Spencer Rockwell
The History of Piracy and How It Shaped the Modern World			
ACB 110	3:15	26	Michael S. Mahon
Nothing has Changed: Increased Unemployment and the Gendered Division of Housework			
ACB 110	3:30	16	Stephanie R. Dickey
Easing the Effects of Acculturative Stress on Migrant Farm Workers: An Analysis of the Relationship Between Demographic and Social Predictors and Acculturative Stress			
ACB 110	3:45	31	Catherine D. Pitts and Ashley Rowley
Gender Differences and Preferences in Education			
ACB 110	4:00	31	Christina Reed
Qualitative Interviews at a Therapeutic Group Home			
ACB 110	4:15	9	Greg Batchelder

LANGUAGES, LITERATURE & SOCIAL SCIENCES (LLSS)

TRACK B - Faculty Facilitator: Steve Schulte

Title, Location	Time	Page #	Student(s)
Presenting the Other: A Look into the Presidential Rhetoric between "Us" and "Them"			
ACB 217	3:00	26	Ashley E. Mates
The Will to Win			
ACB 217	3:15	32	April J. Sanchez
Female Perpetrators of the Holocaust: An Examination of Gender, Environment, and Brutality			
ACB 217	3:30	8	Robert W. Archer III
The Grandest Indian Council of the 19th Century: The Fort Laramie Treaty of 1851			
ACB 217	3:45	10	Kyle Brightman
Better or Worse: The Reality of Soviet Russia During the 1960s			
ACB 217	4:00	32	Anastasia Shepton (Castleberry)
The Rhetoric of Death Ritual During the Roman Republic and Early Empire			
ACB 217	4:15	8	Samantha Arbeiter

MATHEMATICS, COMPUTER SCIENCE & MECHANICAL ENGINEERING (MCSME)

TRACK A - Faculty Facilitator: Anne Spalding

Title, Location	Time	Page #	Student(s)
Stomp: Department of Energy Model for the Simulation of the Cleanup of Hazardous Waste			
GMH MPR (1)	3:00	12	Ian Category and Nathan Wood
Mandelmania: A Mandelbrot Fractal Animation Video			
GMH MPR (1)	3:13	12	Ian Category
Simple Walking Robots			
GMH MPR (1)	3:26	29	Jonathon Mellor and Luke Moses
Navigating Mars-Like Terrain with an Automovs Rover			
GMH MPR (1)	3:39	33	Marshall Sweatt and Nathan Wood

Contract Management Software

GMH MPR (1) 3:52 21 Richard Giglio, Eric Gore and Rob Kowalsky

Employee Routine Test Record Management

GMH MPR (1) 4:05 30 Joseph Blehm, Daniel Pautsch and Shawn Traub

Designing and Developing a Computer Inventory System for the Windows Platform

GMH MPR (1) 4:18 23 Christian Bassett, Dustin A. Hoppe and Jon Lusk

Framing Order Calculation Software and Customer Database Designed for Budget Framer

GMH MPR (1) 4:31 24 Rebecca Arisawa, Melinda Golden and Douglas Jacob

Starting a Software Development Company

GMH MPR (1) 4:44 28 Daniel Messano

MATHEMATICS, COMPUTER SCIENCE & MECHANICAL ENGINEERING (MCSME)

TRACK B - Faculty Facilitator: Rick Ott

Title, Location Time Page # Student(s)**CFD and Particle Image Velocimetry in Design Optimization**

GMH MPR (2) 3:00 22 Justin Grant, Kelsi Middleton, Ash Thomas and Laura Zapata

An Analysis of the Strength of User Chosen Passwords and Methods of Guessing Them

GMH MPR (2) 3:13 34 Jon Lusk and Donny Warbritton

Password Analysis using Probability and Information Theories

GMH MPR (2) 3:26 24 Douglas Jacob

Closed-World Reasoning Applied To Mathematical Proof

GMH MPR (2) 3:39 11 Jacob Cady

A Mathematical Model of Salinity in the Colorado River

GMH MPR (2) 3:52 17 Tyler Downing

A Study of the Mathematics Behind JPEG

GMH MPR (2) 4:05 13 Heidi Chynoweth

Sticks and Statistics

GMH MPR (2) 4:18 28 David Miller

Extreme Value Theory Analysis of Air Pollution Levels in the Grand Valley

GMH MPR (2) 4:31 13 Shane Chatfield

Finite Groups Unraveled

GMH MPR (2) 4:44 27 Larisa Merrell

MECHANICAL ENGINEERING - FIRST YEAR DESIGN EXPO (ME)

TRACK A - Faculty Facilitator: Gigi Richard

Title, Location Time Page # Student(s)**Grey Water Systems**

Academic Quad 3:00 - 5:00 36 Stephen Buckingham, Jesse Coquoz, Rebecca Howe, Franklyn Dylan Taft and Tyler Weitzel

Helicopter Demonstration

Academic Quad 3:00 - 5:00 36 Brian Cook, Orin Crouse, Maureen Foster, Brian Powers and Sam Yenchick

Rainwater Collection and Recycling

Academic Quad	3:00 - 5:00	36	Marcie Cline, Alexandria Davis, Steven Geary, Zach Peterson and Jerry Schmaing
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The Stirling Engine

Academic Quad	3:00 - 5:00	36	Elliot Berg, Isaac Brown, Britton Humphrey and Skyler Ogden
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Free Energy Hydrogen Generation

Academic Quad	3:00 - 5:00	37	Eric Flemming, Cody Gardner, Daniel Gatt and Keonimana Shigematsu
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Hydroelectric Power Generator

Academic Quad	3:00 - 5:00	37	Matthew Busker, Clancy Garoutte, Brandon Gerding, Robert Lueck and Ash Thomas
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MECHANICAL ENGINEERING - FIRST YEAR DESIGN EXPO (ME)

TRACK B - Faculty Facilitator: Gigi Richard

Title, Location	Time	Page #	Student(s)
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La Tortuga: Robotic Amphibious Cooler

Academic Quad	3:00 - 5:00	37	Daniell Garcia, Ryan Gardner, Logan Gillespie, Andres Hernandez and Kyle Luke
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Automatic White Board Eraser

Academic Quad	3:00 - 5:00	38	Jose Betancourt, Clinton Cribari, Kevin Hilken, Micah Hoogeveen, Paul Linn and Ian McGowan
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OFEP Rube Goldberg

Academic Quad	3:00 - 5:00	38	Christian Holcomb, Issac Hudson, Jason Logsdon, Oscar Madrid and Chris Rowley
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Rube Goldberg Machine to Turn on a Radio

Academic Quad	3:00 - 5:00	38	Jesse Brewer, Baron Fillpot, Brandon Howell, Kelsi Middleton and Cody Padilla
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Reciprocating Lawn Mower

Academic Quad	3:00 - 5:00	39	Craig Freeborn, Timothy Johnson, Derrell Lindsey, Zachary MacIntosh and Kelly Regimbal
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Rube Goldberg Recycling Machine

Academic Quad	3:00 - 5:00	39	Matthew Lidberg, Kris Sharpe, Shiloh Summy, Weston Vorderberg and Laura Zapata
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PROFESSIONAL PROGRAMS (PP)

TRACK A - Faculty Facilitator: Alma Jackson

Title, Location	Time	Page #	Student(s)
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Therapeutic Hypothermia: Treatment for Post Myocardial Infarction Patients

ACB 2nd Floor, east	3:00 - 5:00	9	Jadie Andrus, Britni Barnes, Deborah Courtney and Tiffany Martens
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A Survey of Consumer Brand Awareness

ACB 2nd Floor, east	3:00 - 5:00	14	Amey Collazo, Amanda Holman, Connie Jo Miles and Nancy Mohrman
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Family Perceptions of Hospice Nursing Care in an Inpatient Facility

ACB 2nd Floor, east 3:00 - 5:00 17 Meghan Donohue, Holly Malone, Tyler Preszler and Conrad Tombleson

The Stress Response of Tub Bathing on Preterm Infants

ACB 2nd Floor, east 3:00 - 5:00 18 Janine M. Dyke

Nursing The Language Barrier

ACB 2nd Floor, east 3:00 - 5:00 19 April Flowers, Kathryn Grice and Sarai Silva

Chronic Iliotibial Band Tendonitis Secondary to Gluteus Medius Weakness and Lateral Pelvis Rotation During the Stance Phase of Running

ACB 2nd Floor, east 3:00 - 5:00 28 Cody Moore

PROFESSIONAL PROGRAMS (PP)

TRACK B - Faculty Facilitator: Deborah Parman

Title, Location	Time	Page #	Student(s)
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Teaching How to Learn: Literacy in the Information Age

FA 214	3:00	35	Lyndsay Yerbic
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Web Site Development for a Local Non-Profit

FA 214	3:15	15	Ed Cart, Cally Cripps, Carl Nesbit and Lyndsay Yerbic
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Consumer Brand Recognition

FA 214	3:30	35	Eric Ballard, Brittani DeRuiter, Adam Golesh and Bryce Wynne
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Cloud Topology: An Emerging Need for Standards

FA 214	3:45	29	Carl Nesbit
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A Comparison Study of the Center Mass of the Mechanics of Two Inbound Soccer Throws

FA 214	4:00	18	Kristina Drawbridge
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Comparison of The Pelvic Control Between Shod vs. Barefoot Running

FA 214	4:15	20	Richard Geng, Nate Keck and Bryan Whitesides
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Effective Warm-up Techniques Resulting in Faster Standard Bat Swings

FA 214	4:30	20	Ellen Garcia and Nate Keck
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SCIENCES (SCI)

TRACK A - Faculty Facilitator: Julie Bruch

Title, Location	Time	Page #	Student(s)
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Volcanism and Yellowstone National Park: Evidence for a Near Future Eruption?

ACB 2nd Floor, west	3:00 - 5:00	10	John Blake
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The Evolution of the Building Envelope for Greater Energy Efficiency and a Lighter Carbon Footprint

ACB 2nd Floor, west	3:00 - 5:00	14	Fred A. Cook
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Geology of the Liberty Cap area of the Colorado National Monument, Western Colorado

ACB 2nd Floor, west	3:00 - 5:00	15	Tammie Lee Crossen
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Analysis of Subsurface Data to Correlate Sand Bodies of the Williams Fork Formation, Western Colorado

ACB 2nd Floor, west	3:00 - 5:00	21	Mark Gorenc and Beau Taylor
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Colorado Plateau Uplift: Vesicular Basalt Paleomagnetism Compared With River Incision History of the Cenozoic

ACB 2nd Floor, west 3:00 - 5:00 22 Courtney Groff

The Immature Stages and Life History of *Oleria Solida* (Lepidoptera: Nymphalidae) in Northeastern Ecuador

ACB 2nd Floor, west 3:00 - 5:00 27 Britney McKelvey

Mapping and Analysis of Fairy Rings in Northwest Colorado

ACB 2nd Floor, west 3:00 - 5:00 31 James Raley

SCIENCES (SCI)

TRACK B - Faculty Facilitator: Andres Aslan

Title, Location	Time	Page #	Student(s)
Larval Development and Oviposition Behavior of the Tropical Butterfly <i>Leptophobia Eleone</i>; Pieridae			
ACB 111	3:00	35	Katharine Williams
Paleomagnetism: Methods and Interpretations			
ACB 111	3:15	33	Beau Taylor
The Formation of the Moon			
ACB 111	3:30	30	Jacob O'Rear
Radiocarbon Dating: History, Methods, Uses and Relationship to Other Radiometric Dating Methods			
ACB 111	3:45	27	Laverne Lenita Megee
Origin of Upheaval Dome: Salt Dome or Impact Structure			
ACB 111	4:00	19	Tom Echtermeyer
Analysis of Anomalous Drainages in the Park and Gore Ranges in Northern Colorado			
ACB 111	4:15	21	Mark Gorenc
Creating a GIS Dataset for Goddard Creek/Columbine Pass, Western Colorado			
ACB 111	4:30	26	Zachary Logan

The Student Showcase Planning Committee extends appreciation to the students, judges, facilitators, and faculty mentors for their participation in the Showcase; and to the following companies and MSC offices that provided gifts or staff support for this event: Chick-fil-A, MSC Bookstore, Outback Steakhouse, Sodexo, and the MSC Offices of Academic Affairs, Facilities, Information Technology, and Marketing.

FACULTY MENTORS



Jake Allee	Art
Andres Aslan	Physical & Environmental Sciences
Monte Atkinson	Music
Julie Barak	Languages, Literature & Mass Communication
Madeline Becker	Teacher Education
Ed Bonan-Hamada	Computer Science, Mathematics & Statistics
Steven Bradley	Art
Tim Brower	Physical & Environmental Sciences
Joshua Butler	Art
Rex Cole	Physical & Environmental Sciences
Arun Ektare	Computer Science, Mathematics & Statistics
Justin Gollob	Social & Behavioral Sciences
Phil Gustafson	Computer Science, Mathematics & Statistics
Jessica Herrick	Social & Behavioral Sciences
Glen Hoff	Construction Technology, WCCC
Alma Jackson	Health Sciences
Verner Johnson	Physical & Environmental Sciences
Darin Kamstra	Music
Phil Kavanagh	Computer Science, Mathematics & Statistics
Barry Laga	Languages, Literature & Mass Communication
Richard Livaccari	Physical & Environmental Sciences
Luis Lopez	Languages, Literature & Mass Communication
Warren MacEvoy	Computer Science, Mathematics & Statistics
Bill McCracken	Manufacturing Technology, WCCC
Max McFarland	Computer Science, Mathematics & Statistics
Tamera Minnick	Physical & Environmental Sciences
Doug O'Roark	Social & Behavioral Sciences
Rick Ott	Computer Science, Mathematics & Statistics
Deb Parman	Business
Brian Parry	Social & Behavioral Sciences
Elizabeth Propes	Social & Behavioral Sciences
Carolyn Quinn-Hensley	Art
Peter Rekemeyer	Physical & Environmental Sciences

Gigi Richard	Physical & Environmental Sciences
Abigail Richardson	Social & Behavioral Sciences
Robert Ryan	Kinesiology
William Sands	Kinesiology
Steve Schulte	Social & Behavioral Sciences
Dan Schultz Ela	Computer Science, Mathematics & Statistics
John Sluder	Process Systems, WCCC
Deborah Snider	Art
Johnny Snyder	Business
Jon St. Peter	Culinary Arts, WCCC
Darrell Tousley	Art
Thomas Walla	Biological Sciences
Alane Wooster	Administrative Office Technology, WCCC

SHOWCASE JUDGES



Mike Akens	Stew Hollingsworth
John Boulden	Bill Hood
Debra Brauchler	Sue Kupelian
Catherine Norton Breman	Frank Kustas
Esther Broughton	Maggie Lopez
Darrin Cisar	Bill Milner
Frank Crenshaw	Justin Nordine
Grant Crowley	Julia Norman O'Connell
Victoria Crowley	Mike Perry
Randy Dexter	Wayne Petefish
Royce Elliott	Janine Rider
Joe Fandrich	Dan Skinner
Jane Foster	Kathrine Stadelman
Jeff Freeland	Les Szabo
Chad Grabow	Eve Tallman
Tom Graves	John Trammel
Katie Hader	Karen Troester
Randy Hampton	David Wheeler
Krystyn Hartman	

Main Campus



MAP LEGEND

LOCATIONS

Student Showcase presentations, exhibits, and demonstrations will take place at the following locations across Mesa State's main campus:

- Academic Classroom Building (ACB) 1
- Academic Quad 2*
- Fine Arts Building (FA) 13
- Grand Mesa Hall, Multi-Purpose Room 15
- Houston Hall 17
- Moss Performing Arts Center (MPAC)..... 21

* In the event of poor weather, events scheduled in the Academic Quad will be moved to Houston Hall.

Academic Classroom Building

Sciences Posters, Sciences Oral Presentations, Professional Program Posters, Languages, Literature, & Social Sciences Oral Presentations, Career & Technical Programs Oral Presentations

Academic Quad

Career & Technical Programs Demonstrations, Mechanical Engineering First Year Design Expo

Fine Arts Building

Art Exhibits & Demonstrations, Professional Program Oral Presentations

Grand Mesa Hall, Multi-purpose Room

Mathematics, Computer Science & Mechanical Engineering Demonstrations & Oral Presentations

Moss Performing Arts Center

Film Presentations, Music Presentations & Performances, Art Oral Presentations

ACADEMIC AFFAIRS ►►



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