

Mission Statement

NASA ROSES Space Archaeology Workshop on Research and World Heritage

Prepared by

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and

Ronald G. Blom, Ph.D., JPL/NASA

Hosted by

Michael Harrower, Ph.D.

Johns Hopkins University, Department of Near Eastern Studies

Space-based and geospatial technologies offer powerful means of supporting the tandem goals of scientific research (understanding) and Cultural Resource Management (preserving) the ancient past. The World Heritage Convention, signed 40 years ago next year (2012), has been ratified by more countries (187) than any other international treaty in history. The Convention obligates all signatories (States Parties) to inventory and evaluate cultural and natural resources, evaluate their importance, and take steps to conserve and preserve such resources through the establishment of appropriate institutions and through training. This workshop will deal with a certain type of cultural resource, archaeological sites, and explore how aerial and satellite remote sensing can advance scientific research alongside the goals of the World Heritage Convention.

Topics will include public and private institutional support and cooperation, funding sources, imagery sources and access. Leading experts will introduce cutting edge NASA technologies and will offer basic instruction and opportunities to discuss access and processing of Radar, Lidar, and Multispectral/Hyperspectral imagery.

Finally, this workshop will also explore the desirability of establishing a network of NASA/UNESCO/ICAHM University Affiliates, which would develop online GIS data bases for areas or archaeological sites of global importance, including World Heritage Sites, and provide technological support for agencies and universities in World Heritage Convention signatory countries.

Agenda

8 October 2011

8:00-8:10 a.m. (Gilman 130G)

Welcome to Johns Hopkins University

Michael Harrower, Johns Hopkins University, Department of Near Eastern Studies

8:10-8:20 a.m. (Gilman 130G)

Preview of Workshop

Douglas Comer, ICAHM

8:20-9:00 a.m. (Gilman 130G)

A History of Space Archaeology

Ronald Blom, JPL/NASA

9:15-10:00 a.m. (Dunning 212)

Multispectral Technology and Archaeological Applications: Part 1, Technology

Mike Abrams, JPL/NASA

10:00-10:15 a.m.

Coffee Break

10:15-11:30 a.m. (Dunning 212)

Multispectral Technology and Archaeological Applications: Part 2, Applications

Mike Abrams, JPL/NASA

11:15-Noon (Gilman 130G)

Using Hyperion at Faynan, Jordan

Stephen Savage, Arizona State University

Noon-12:30 p.m. (Gilman 130G)

Questions and Discussion

12:30-1:30 p.m.

Lunch

1:30-2:00 p.m. (Gilman 130G)

Merging Satellite Observations and Hydrological Models

Benjamin Zaitchik, Johns Hopkins Dept of Earth and Planetary Sciences

2:00-2:30 p.m. (Gilman 130G)

Geospatial Hydrological Modeling in Archaeology

Michael Harrower, Johns Hopkins University, Department of Near Eastern Studies

2:30-3:00 p.m. (Gilman 130G)
Serving Data to Research Affiliates
Edward Crawford, GeoEye

3:00-3:15 p.m.
Coffee Break

3:15-4:00 p.m. (Gilman 130G)
The Corona NASA ROSES Project
Jesse Casana, Center for Advanced Spatial Technologies (CAST), University of Arkansas

4:00-4:30 p.m.
Questions and Discussion

9 October 2011

8:00-8:10 a.m. (Dunning 212)
Housekeeping and Updates
Douglas Comer

8:10-10:00 a.m. (Dunning 212)
Synthetic Aperture Radar (SAR) Technology and Environmental and Archaeological Applications: Part 1, Technology
Bruce Chapman, JPL/NASA

10:00-10:15 a.m.
Coffee Break

10:15 a.m.-Noon (Dunning 212)
Synthetic Aperture Radar (SAR) Technology and Environmental and Archaeological Applications: Part 2, Applications
Bruce Chapman, JPL/NASA

Noon-1:00 p.m.
Lunch

1:00-3:00 p.m. (Dunning 212)
LIDAR Technology and Applications to Archaeology
Devin White, IAI

3:00-3:15 p.m.
Coffee Break

3:15-4:00 p.m. (Gilman 130G)
The Use of LIDAR at the Maya Site of Caracol, in Belize

Arlen Chase, University of Central Florida

4:00-4:45 p.m. (Gilman 130G)

Legacies of Resilience: The Lake Pátzcuaro Basin Archaeological Project

Christopher Fisher and Stephen Leisz, Colorado State University

4:45-5:00 p.m.

Questions and Discussion

6:00-8:00 p.m.

Reception, 4303 N. Charles St.

10 October 2011

8:00-8:10 a.m. (Gilman 130G)

Housekeeping and Updates

Douglas Comer, ICAHM

8:10 to 9:00 a.m. (Gilman 130G)

Applying Remote Sensing and GIS for Management, Research, and Interpretation of Archaeological Sites

Douglas C. Comer, ICAHM

9:00 to 9:30 a.m. (Gilman 130G)

Method for Identifying Probable Archaeological Sites from Remotely Sensed Data

James C. Tilton, NASA Goddard

9:30 – 10:00 p.m. (Gilman 130G)

Statistical Advances for the Automated Detection of Archaeological Sites

Daniel Sussman, Johns Hopkins University, Statistics and Imaging Department

10:00- 10:30 a.m. (Gilman 130G)

Using Satellite Imagery to Monitor Change at Ancient Gordian, in Turkey

Compton Tucker, NASA Goddard

10:30-11:00 a.m.

Coffee Break

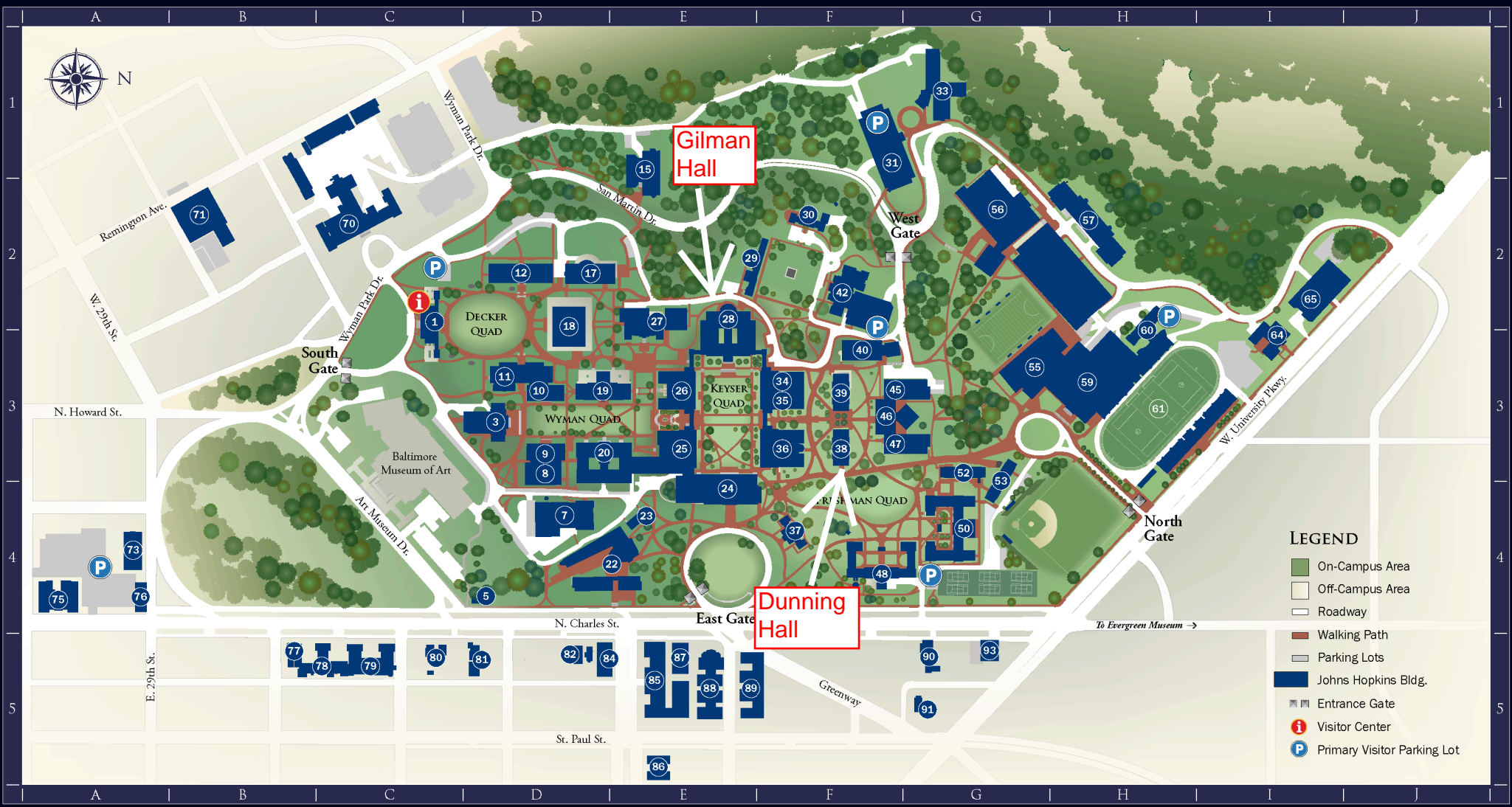
11:00-Noon (Gilman 130G)

The NASA Space Archaeology Program

Craig Dobson, NASA

Noon-2:00 p.m.

Lunch and Discussion



JOHNS HOPKINS UNIVERSITY

Homewood Campus Map & Directory

Abel Wolman House (82)	D5	Ames Hall (26)	E3
Alumni Memorial		Barton Hall (10)	D3
Residence Hall 1 (48)	F4	Biology East (47)	F/G3
Alumni Memorial		The Blackstone Apts. (84)	D/E5
Residence Hall 2 (50)	G4	Bloomberg Center for	
Building A (52)	G3	Physics & Astronomy (56)	G2
Building B (53)	G3/4	Bradford Apts. (86)	E5

Bunting Meyerhoff		Interfaith and Community	
Service Center (93)	G5		
Chemistry Bldg. (40)	F3		
The Charles Apts. (87)	E5		
Charles Commons (85)	E5		
Clark Hall/Biomedical			
Engineering Bldg. (12)	D2		
Computational Science			
and Engineering Bldg. (11)	D3		
Dell House (76)	A4		
Dunning Hall (38)	F3		
Education Bldg. (75)	A4		
Garland Hall (18)	D2/3		
Gatehouse (5)	D4		
Gilman Hall (28)	E2/3		
Glass Pavilion (27)	E2		
Greenhouse (29)	E/F2		
Hodson Hall (17)	D/E2		

Homewood Apts. (78)	C5		
Homewood Field (61)	H3		
Homewood Museum (37)	F4		
Hopkins Square (79)	C5		
Jenkins Hall (34)	F3		
Johns Hopkins Club (42)	F2		
Krieger Hall (25)	E3		
Lacrosse Hall of Fame (64)	I 2/3		
Latrobe Hall (19)	D/E3		
Levering Hall (27)	E2		
Levi Bldg. (45)	F/G3		
Macaulay Hall (39)	F3		
Maryland Hall (20)	D/E3		
Mason Hall (1)	C2/3		
Mattin Center (22)	D/E4		
Maxine F. Singer Building/			
Carnegie Institution			
of Washington (33)	G1		
McCoy Hall (89)	E/F5		

Mergenthaler Hall (35)	F3		
Merrick Barn (23)	E4		
Milton S. Eisenhower			
Library (24)	E4		
Mudd Hall (46)	F/G3		
New Engineering Bldg. (8)	D3		
Newton H. White, Jr.			
Athletic Center (59)	H3		
Nichols House (30)	F2		
Olin Hall (15)	E1		
Ralph S. O'Connor			
Rec. Center (55)	G/H3		
Remsen Hall (36)	F3		
Rogers House (91)	G5		
ROTC Building (60)	H2/3		
San Martin Center (31)	F/G1		
Shaffer Hall (9)	D3		
Shriver Hall (3)	D3		

Smokler Center for			
Jewish Studies			
(Hillel) (81)		C/D5	
Steinwald House (82)		D5	
Steven Muller			
Building/STScl (57)		H2	
Whitehead Hall (7)		D4	
Wolman Hall (88)		E5	
Wyman Park Bldg. (70)		C1/2	
115 W. University Pkwy. (65)		I2	
5-15 W. 29th (73)		A4	
3001 Remington (71)		B2	
3001 N. Charles (77)		B5	
3103 N. Charles (80)		C5	
3105 N. Charles (80)		C5	
3405 N. Charles (90)		G5	

NASA Space Archaeology Workshop Reception

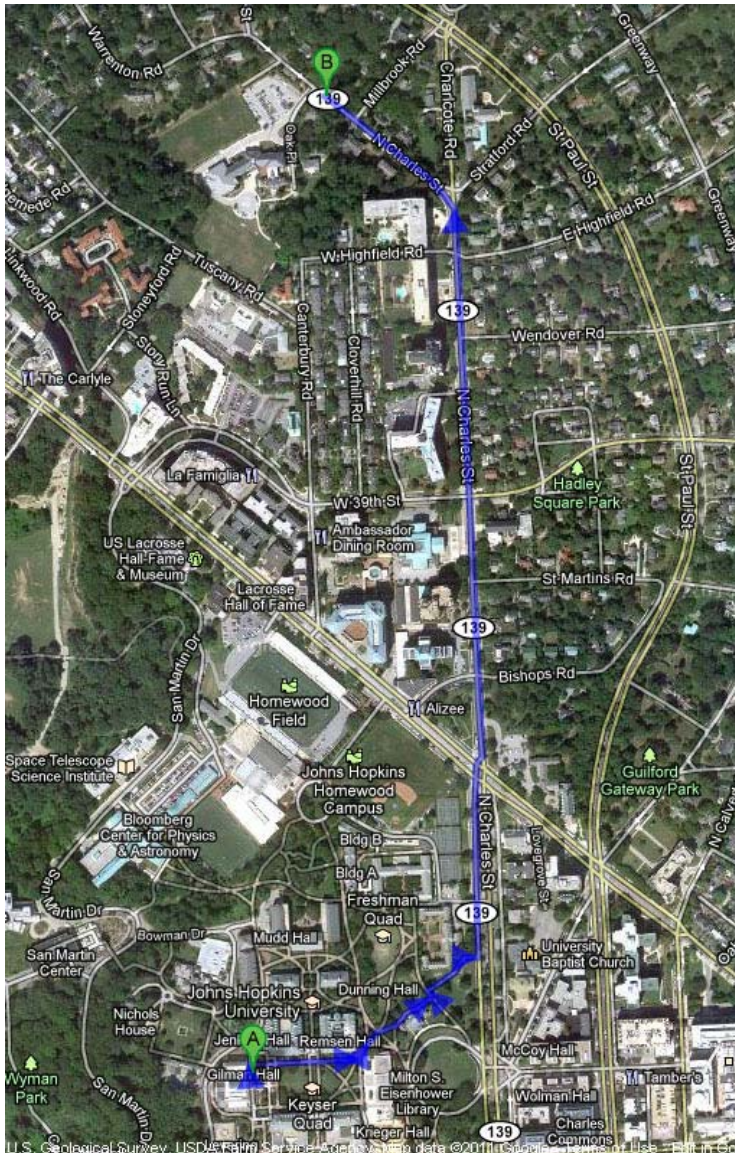
6:00 p.m.-8:00 p.m.

Sunday, 9 October 2011

4303 N. Charles St.

Baltimore, MD 21218

(Home of Elizabeth and Doug Comer)



A: Gilman Hall
B: 4303 N. Charles St.

The Johns Hopkins University Homewood campus faces North Charles St. Simply walk left (north) less than one mile to 4303 N. Charles St.

If you are *driving*, park in the Calvert School parking lot across the street (note that Charles St. in front of our house is one-way, south, so continue straight on Charlcoffe, turn left on St. Paul, then left again, taking you back to Charles St. going south).

If it is raining, transportation will be arranged.

Questions? Call Doug at 202 345-6030 or email dcomer@culturalsite.com