

Welcome to the 67th Annual Symposium





Presidential Welcome for the 67th Annual ASGS Symposium from ASGS President Annalee Pickett



Dear esteemed members and attendees,

With great pleasure, the American Scientific Glassblowers Society extends our warmest welcome to you at our 67th annual Symposium.

Thank you for embracing this opportunity to learn and share together about Scientific Glass. Salem Community College is our vibrant host for activities during the event. This location will bring us together in new ways around access to a cutting-edge Glass Center.

As President of the ASGS and Alumni of Salem CC, my sincerest gratitude goes to the Symposium Committee, Salem staff, generous sponsors and you as a member for making this event happen.

Welcome to New Jersey! Enjoy the Garden State and make this a Symposium to remember.

Warm regards,
Annalee Pickett
ASGS President



Founded in 1952 and incorporated in 1954, the American Scientific Glassblowers Society began as a professional, not-for-profit organization of scientific glassblowers and suppliers associated with the field. The objectives of the Society are to further the education of its membership through the gathering, promotion, and dissemination of technical and scientific information concerning all aspects of scientific glassblowing.

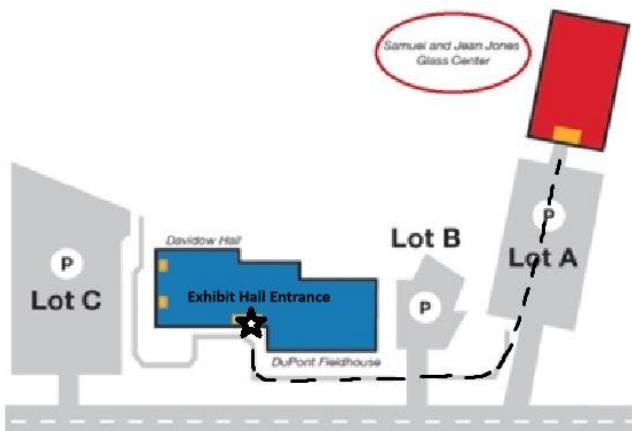
As a cost saving measure, we've condensed the information in this printed program to the bare necessities. QR codes will be found throughout the program to point you to the website page with the detailed content. Give it a try.



www.asgs-glass.org is the same as:

Please visit the Google Play store or the Apple store to download a free QR Code reader.

Glass Center parking available in Lot A or C ★ Exhibit Hall Entrance



**Sunday June 23****SCHEDEULE**

9:00a.m. – 4:00p.m.	Board of Directors meeting	SCC Glass Center
2:00p.m. – 5:00p.m.	Registration (No registration at hotel)	SCC Glass Center

Monday June 24

8:15a.m.	Shuttle bus from HYATT PLACE	
8:00a.m. – 1:30p.m.	Registration (No registration at hotel)	SCC Glass Center
9:00a.m. – 12:30p.m.	Seminars and workshops	SCC Glass Center
12:30p.m. – 1:30p.m.	Lunch (provided)	Tent in Parking lot A SCC Glass Center
12:30p.m. – 1:30p.m.	Shuttle bus by request	at registration
1:30p.m. – 5:00p.m.	Seminars and workshops	SCC Glass Center
4:00 p.m. – 6:00p.m.	Registration (No registration at hotel)	SCC Glass Center
4:45p.m. – 5:45p.m.	Shuttle bus by request	at registration
5:30p.m. – 8:00p.m.	Exhibition, Silent Auction, National Awards (open bar & dinner provided)	SCC - Davidow Hall
National Awards:	J. Allan Alexander, Helmut E. Drechsel, Memorial, Symposium Chair, John J. Hauer, Wale, William A. Wilt	
8:30 p.m.	Shuttle bus to HYATT PLACE	

Tuesday June 25

8:00a.m. – 1:30p.m.	Registration (NO registration at hotel)	SCC Glass Center
8:15a.m.	Shuttle bus from HYATT PLACE	
9:00a.m. – 12:30p.m.	Seminars and workshops	SCC Glass Center
10:30a.m – 12:30p.m.	SCC Campus Tour conducted by Bob Russell (Walking tour) departs from	Tent in Parking lot A
12:30p.m. – 1:30p.m.	Lunch (provided)	Tent in Parking lot A SCC Glass Center
12:30p.m. – 1:30 p.m.	Shuttle bus by request	at registration
1:30p.m. – 5:00p.m.	Seminars and workshops	SCC Glass Center



4:00 p.m. – 6:00p.m.	Registration (No registration at hotel)	SCC Glass Center
4:45p.m. – 5:45p.m.	Shuttle bus by request	at registration
5:30p.m. – 8:00p.m.	Exhibition, Silent Auction, Section Awards (open bar & dinner provided) Section Awards	SCC - Davidow Hall
8:30 p.m.	Shuttle bus to HYATT PLACE	

Wednesday June 26

8:15a.m.	Shuttle bus from HYATT PLACE	
8:00a.m. – 1:30p.m.	Registration (No registration at hotel)	SCC Glass Center
9:00a.m. – 11:30a.m.	Technical Demos	SCC Glass Center
11:30a.m. – 12:30p.m.	Technical Posters	SCC Glass Center
12:30p.m. – 1:30p.m.	Lunch (provided)	Tent in Parking lot A
12:30p.m. – 1:30p.m.	Shuttle bus by request	at registration
1:00p.m. – 2:00p.m.	Annual Business Meeting at SCC Glass Center (No awards given out during meeting)	Tent in Parking lot A
2:00p.m. – 5:00p.m.	Technical Papers	SCC Glass Center
4:00p.m. – 6:00p.m.	Registration (No registration at hotel)	SCC Glass Center
5:00p.m. – 7:00p.m.	Open Flame Night	SCC Glass Center
7:30 p.m.	Shuttle bus to HYATT PLACE	

Thursday June 27

8:00a.m. – 4:00p.m.	Bus to Chemglass LifeSciences, PEG, and WheatonArts	parking lot Hyatt SCC Glass Center
4:00p.m. – 8:30p.m.	WheatonArts After Dark. All awards given out Mon & Tues evening. No awards given out during dinner)	
8:30p.m. - 10:00p.m.	Bus to Salem Community College and Hyatt Place Riverfront	



Junior Workshop	Junior Workshop	Junior Workshop	Junior Workshop	Junior Workshop	Allen Brown Workshop Day Two	Oven Maintenance and Repair	Plasma Light Sculpture	Lasers and Wazers	Optical Windows
Mon AM 9:00AM- 12:30PM	Mon PM 1:30PM-5:00PM	Tues AM 9:00AM- 12:30PM	Tues PM 1:30PM- 5:00PM	Lunch 12:30-1:30	Introduction to Lathe Use & Safety Rich Brainard One Time Only	Oven Maintenance and Repair Doug Ohm One Time Only	Plasma Light Sculpture Angie McHale Also Mon PM	Lasers and Wazers Oh My Fels Also Tues AM	Optical Windows Aaron Kirchoff Also Tues AM
					Scientific Glassware Repair Strategies Kyle Meyer One Time Only		Brazing and silver soldering Patrick DeFlorio One time Only	PBS video Dr. Jackson and Tracy Drier Microheterotopia: How scientific glass became a profession Also Mon PM	Component Selection Jim Hudson Also Tues PM
					So you want to start a glass business Morraine, Kirchoff, Krusci, Navalinsky One time only		Lathe Maintenance Chris Bock Also Tues PM	Lasers and Wazers Oh My Fels Also Mon AM	Optical Windows Aaron Kirchoff Also Mon AM
					Build a Quartz Torch Patrick Godinik One Time Only		Lathe Maintenance Chris Bock Also Tues AM	PBS video Dr. Jackson and Tracy Drier Microheterotopia: How scientific glass became a profession Also Mon PM	Component Selection Jim Hudson Also Mon PM



MONDAY AND TUESDAY ALL DAY 9:00 - 5:00 TECHNICAL WORKSHOPS

Allan B Brown Regular Member Seminar



Instructors: Philip Legge, Ron Legge, and Kevin Teaford

Joseph S Gregar Junior Member Seminar



Instructors: Christopher Bock, Benjamin Revis, Richard White, Jordan Smith, Byron Keirnan and Daniel DeLashmutt

MONDAY MORNING 9:00 – 12:30 TECHNICAL SEMINARS



Oven Maintenance and Repair

Principal Instructor Doug Ohm

Hot Shop Don't Stop + Get Pumped for Pumpkins

Principal Instructor Katie Severance assisted by Blake Julich

Plasma Light Sculpture

Principal Instructor Angela McHale

Lasers and Wazers and Blasters, Oh My!

Principal Instructor Holly Fels

Optical Windows

Principal Instructor Aaron Kirchhoff



MONDAY AFTERNOON 1:30-5:00
TECHNICAL SEMINARS



Introduction to Glass Lathe Safety and Use

Principal Instructor Rich Brainard

Quartz; The Same as Glass but Different

Principal Instructor Bob Singer

Brazing and Silver Soldering for the Glassblower

Principal Instructor Patrick DeFlorio

Plasma Light Sculpture

Principal Instructor Angela McHale

<<FREE PARTICIPATION (SPONSORED BY ASGS)>>

Video: Cool Down with Hot Glass

Dr. Catherine Jackson and Tracy Drier

Additional videos from the 2023 Vancouver Symposium will follow

<<FREE PARTICIPATION (SPONSORED BY JIM HODGSON)>>

Component Selection

Principal Instructor James Hodgson



TUESDAY MORNING 9:00 – 12:30
TECHNICAL SEMINARS



Scientific Glassware Repair Strategies

Principal Instructor Kyle Meyer

<<FREE PARTICIPATION>>

SCC Campus tour including the “original” scientific glass classroom

Conducted by Bob Russell Instructional Chair SGT 2018-2022

Lathe Maintenance and Repair

Principal Instructor Chris Bock

Tooling at the Bench

Principal Instructor Mike Greico

Lasers and Wazers and Blasters, Oh My!

Principal Instructor Holly Fels

Optical Windows

Principal Instructor Aaron Kirchhoff



TUESDAY AFTERNOON 1:30-5:00
TECHNICAL SEMINARS



So You Want to Start a Glassblowing Business

Principal Instructors John Kruesi, Doug Navalinsky, Aaron Kirchhoff, Erich Moraine

Build A Quartz Torch

Principal Instructor Patrick Gadzinski

Lathe Maintenance and Repair

Principal Instructor Christopher Bock

Tooling at the bench

Principal Instructor Mike Greico

<<FREE PARTICIPATION>>

Video: Cool Down with Hot Glass

Dr. Catherine Jackson and Tracy Drier

<<FREE PARTICIPATION Sponsored by Jim Hodgson>>

Component Selection

Principal Instructor James Hodgson

WEDNESDAY MORNING 9:00-11:30
TECHNICAL DEMONSTRATIONS



You Call That a Side Seal - Dylan Karle

Sealing Perforated Quartz Disk - Carlos Rodriguez Flores

How is Your Neck? - Joe Sharp

Angled Suprasil Window Seal Using Glass Torches and Fixture

Andy Benowitz

Valves, Valves, Everywhere Valves - Annalee Pickett

Build a Diffusion Pump Skirt Using High Temp Carbon Felt

Devin Shields



WEDNESDAY AFTERNOON 2:00-5:00
TECHNICAL PAPERS

2:00 PM **Are We Running Out of Glass?** - *Charlie Manion*

2:25 PM **Interdisciplinary Scientific Glassblowing: Art-Inspired Glass Instruments**

Part 1 - *Paul Vanouse*

2:50 PM **Interdisciplinary Scientific Glassblowing: Art-Inspired Glass Instruments**

Part 2 *Tracy Drier, Lauren Aria*

3:15 PM **Review of Franz Cells** - *Nolan Galb*

3:40 PM **The Glass Class:** - *Vivian Feng*

4:05 p.m. **Semiconductor Industry & Quartz Glassblowing** -*Mike Glenn TOSOH*

Quartz

4:30 p.m. **Scientific Glassblowing at the University: What Does it Mean to be an Advocate for your Field?** - *Lauren Aria and Tracy Drier*

Posters are available all week for viewing.

Authors will be present Wed 11:30 - 12:30

TECHNICAL POSTERS



Make Your Own Glass KF

flange - *Aaron Kirchhoff*

Micro Sublimations – *Adam Kennedy*

How to Make Kappas and Similar Tools – *Bandhu Dunham*

Quartz Still for Tungsten 188 Processing – *Carlos Rodriguez*

Machinist, a Glassblower's Best Friend – *Devin Shields*

Order of Business – *Jill Korgemagi-Clarke*

Holding at an Angle – *Jim Hodgson*

Bridging the Flameworking Community – *Glass Education Exchange (GEEX)*

3D Printing Applications for the Glass Shop – *Lauren Aria, Tracy Drier, Sebastian Thompson*

Glass Micro-Capillary Electrodes for Corrosion Research – *Tracy Drier, Lauren Aria, Changkyu Kim*



THURSDAY ALL DAY (GLASS CENTER IS CLOSED)

Company Tours: ChemGlass and PEG

WheatonArts Tour



READ CAREFULLY THIS IS IMPORTANT

On the back of your name badge is your bus number (and group letter).

You must board the bus # you are assigned to.

We have a complex bus schedule that's been carefully planned to get everyone to where they need to be. If you haven't already registered, we don't have room for last minute add-ons as we are completely full.

<<VERY IMPORTANT>>

Bus 1 leaves the SCC Glass Center parking lot @ 8:45AM sharp

Bus 2 leaves the Hyatt 9:00AM and SCC @ 10:00AM sharp

If you miss your bus, sorry, you must book an Uber to catch up with your bus. Don't be that person (please).

**ALL COMPANY TOUR PARTICIPANTS MUST WEAR CLOSED TOE SHOES
AND SAFETY GLASSES or DIDYMIUMS**

WheatonArts After Dark Art Auction and Fundraiser Dinner



Cocktail hour 4-5PM

Fundraiser dinner and art auction to follow.

Donation bar all evening.



Exhibition Davidow Hall

Co-Chairs Dave Surdam, Phil Surdam, Dennis Wargo

Exhibit Opening Night Mon June 24th 5:30PM - 8:30PM
National Awards presentation with meal & open bar

Exhibit Second Night Tues June 25th 5:30 – 8:30 PM
Section Awards presentation with meal and open bar

Exhibitors (in alphabetical order)

ABR Imagery



www.abrimagery.com

3803 W. Vernal Pike Bloomington IN 47404
(812) 339-0147

Arnold Gruppe (Symposium Sponsor)



www.bhservicesllc.net

B.H. Services Agent for Arnold Gruppe
Bedford Lane Newton PA.18940
(215) 378-1292

Carlisle Machine Works



www.carlislemachine.com

412 S Wade Blvd. Bldg. #5 Millville, NJ 08332
(856) 825-0627



Chemglass Life Sciences (Symposium sponsor)



www.chemglass.com

3800 North Mill Road Vineland, NJ 08360
(800) 843-1794



Friedrich & Dimmock

www.fdglass.com

2127 Wheaton Ave, Millville, NJ 08332
(856) 825-0305



GM Associates

www.gm-quartz.com

 9824 Kitty Lane Oakland, CA 94603
(510) 430-0806

Precision Electronic Glass

www.Pegglass.com

 1013 Hendee Rd Vineland, NJ 08360
(800) 982-4734



QS Quartz Solutions (Symposium Gold Sponsor)



150 North Michigan Avenue, 35th Floor
60601 Chicago, Illinois USA Michigan Avenue, 35th (312) 560-3179

Salem Community College Glass Center



www.salemcc.edu/glass
460 Hollywood Avenue Carneys Point, NJ 08069
(856) 351-2234

Tosoh Quartz (Symposium Diamond sponsor)



www.tosohquartz.com
14380 NW Science Park Dr, Portland, OR 97229
(503) 605-5600



VitroCom



www.vitrocom.com
8 Morris Ave, Mountain Lakes, NJ 07046
(973) 402-1443

Wale Apparatus



www.waleapparatus.com
400 Front St, Hellertown, PA 18055
(610) 838-7047



Chairs, Presenters, and helpers



This list is incomplete. The number of contributors, some seen, some unseen, is immense. If your name isn't on this list, it's because we've been overwhelmed by the level of support and couldn't keep up. Double "thank yous" to those of you who were accidentally not included. To all who've helped, we are deeply grateful for your time and energy.

Your Symposium Chairs

Klaus Paris, Kaite Jones, Erich Moraine

Aaron	Kirchhoff
Adam	Kennedy
Angela	McHale
Annalee	Pickett
Bandhu	Dunham
Benjamin	Revis
Blake	Julich
Bob	Singer
Carlos	Flores
Celeste	Tsang
Chandra	Lamberth
Changkyu	Kim
Charlie	Manion
Chris	Bock
Dan	Walker
Dave	Surdam
Dennis	Wargo

Devin	Shields
Doug	Navalinski
Doug	Ohm
Dylan	Karle
Erich	Moraine
Holly	Fels
James	Hodgson
John	Kruesi
Joseph	Horvat
Kaite	Jones
Katherine	Cheetham
Katia	Eklund
Katie	Severance
Kayla	James
Kevin	Tearford
Klaus	Paris
Kyle	Meyer

Lauren	Aria
Lenorau	Stott
Maxwell	Montini
Mike	Greico
Nicole	Stowe
Nolan	Galb
Patrick	Gadzinski
Paul	Vanouse
Phil	Legge
Reed	Allison
Rich	Brainard
Ron	Legge
Ruth	Babbitt
Suzanne	Peck
Tracy	Drier
Truman	Long