New glass blowing facilities help art department expand

By Cindy Grosenbaugh
5-23-78

Glass blowing was once done in a shed behind Hayes Hall but as of February, with the expansion of the art department, its new facility can be found at 1055 Carmack Road.

With the renovation of Hayes Hall and the expected increase in the number of students in the glass area, more and improved facilities were needed.

The new building provides students with better equipment and more furnaces. The art department is able to accept 32 students per quarter into glass classes.

Although glass blowing occupies the building, regular schedules will not begin until Autumn Quarter, when the furnaces will be in use.

This area of art has been at OSU for three years and has become a first rate glass program, according to Bruce Chao, assistant professor of art and glass area coordinator and the only instructor in the area.

"It is fitting that the University grows in glass blowing since much of it is done in this area of Ohio," Chao said.

The glass is given to the art department by some central Ohio industries including Federal Glass of Columbus and Anchor Hocking of Lancaster. The new furnaces were also donated.

"OSU's new thorough and complete facility is the cheapest way a person can get into glass working," Chao said. The course costs a student only $5.

Students work with hot and cold glass - molten glass, leaded glass and stained glass. They also learn to cast the glass into molds.

Students learn to produce functional and non-functional works, objects which are usable or merely for display.

Glass works are not regularly sold but students do sell some of their work, he said.

Glass blowing has been offered only as a course but Chao said "there is a strong possibility it will be offered as a major within the next year." Next year the department will have its first graduate student.

Bill Henthorne, left, is aided by an assistant in Wiseman Hall to replace a glass sanitation plumbing line to be run into a new chemistry lab. Henthorne is from the OSU Scientific Glass Blowing Shop for Laboratory Stores. His work is part of the renovation taking place to accommodate new facilities for glass blowing classes.
Artistry key to glassblowing

By Beverly Mullet
12 Dec 1977

William T. Henthorne loves his job. "I never hate to get up in the morning and go to work. It's fantastic to learn something new everyday."

Henthorne has been the head glassblower at OSU for the past 32 years.

Located in the Stores Department in McPherson Lab, Henthorne and Ken Tracewell, his apprentice, make glass research equipment for chemistry students and faculty. They also do work for several others on campus, such as the engineering, horticulture, and entomology departments.

"Without the glassblower there could be no research, and without research there could be no scientific glassblowers," Henthorne said.

Much of the equipment used in labs is purchased off campus, he said. However, if a professor "comes up with an idea for a better piece of apparatus we'll make a blueprint to see if it will work. Making something from a blueprint that has never been done before is what makes the work so interesting. We're liable to get a blueprint which was drawn on a napkin or kleenex while a professor was eating lunch," he said.

According to Henthorne, that is where the artistry comes in. To produce a new piece of equipment "you have to be creative, artistically inclined and have a lot of patience. You never know when the glass will crack," he said.

To work at OSU, a glassblower has to be versatile enough to make anything from a catalog or a blueprint, Henthorne said, adding that they also do routine work for students, such as opening sealed bottles so they can return to their research.

The purpose of having a glassblower on campus is to save on the time and money involved in getting lab equipment, Henthorne said.

They work over a natural gas and oxygen flame of 1000-1500 degrees centigrade because their glass is a combination of pyrex and chemex which is heat resistant. Only temperatures of this intensity will make the glass molten hot, he said.

Everything is then put in a glass ameliorating oven where it "soaks" at 560 degrees centigrade to return the glass to its original state so it won't crack when used, he added.

Henthorne began his glassblowing career after he left the Navy. He became apprenticed to his father-in-law, William Leonard, who was then OSU's head glassblower. He was apprenticed to him for 14 years and then became head glassblower himself.

In his 32 years at OSU he has trained four glassblowers. Tracewell has been here 13 years while the others have gone to different universities.

"To become a glassblower, you either have to be friends with one or be apprenticed under a senior glassblower," Henthorne said.

Although Henthorne believes "anyone with artistic ability and a lot of patience can learn the job, there are only 400-450 people in the country whom he considers "master glassblowers."

"We don't have enough schools to teach glassblowing. There is one in New York but it only touches on the surface," he continued.

He added that some are self-taught but "you can only go so far — then you don't know where to go next," he said.

At 53, Henthorne is now thinking of "retiring in the very near future. If an opportunity presents itself, I would like to work in industry to better my skills and further science," he said. "In our country our universities don't realize the importance of a good professional glassblower. If they did they would bring their pay scale in line with industries," he added.

To relax he makes glass "novelties" such as bird baths, ships and insects. "The novelties are a way to get away from everyday apparatus blowing," he said.

He also has a trailer of novelties which he takes to the Delaware Fair and to school demonstrations. "The kids get a kick out of what I do. Sometimes the audiences are so quiet you can hear a pin drop," he said.

"I think glassblowing is one of the most interesting professions in the country today. Hopefully it will never die out," he added.
Academic council approves new major, credit for work

By Belinda Ward

Proposals establishing a procedure for evaluating credit for work experience and outlining a new glass art major program were approved by the Council on Academic Affairs Wednesday.

Many adult students returning to college have work experience, said Vice Provost Arthur Adams, promotor of the credit proposal.

Evaluation of work experience for credit currently takes place in several colleges and departments all over campus. Adams said. This proposal outlines a systematic procedure for granting work experience credit on a university-wide basis, he said.

Four steps are needed to implement the proposal:

• University-wide procedures must be established.
• Departments and colleges should establish procedures for granting credit.
• Counseling staff should be assigned the responsibility of helping students prepare for the evaluation of experiential credit.
• When procedures have been developed, information about the system and its operation will be distributed to the faculty.

The proposal was passed unanimously by council members.

A proposal introduced by Bruce Chao, assistant professor of art and glass area coordinator, was also passed unanimously by council.

Courses in the glass work field are available at OSU but a major program is needed, Chao said.

"Glass is part of a well developed art department which presently offers six major programs and has 30 full-time faculty persons. The absence of official program designation has both disadvantaged students and hampered the development of the limitless potential already possible for glass at OSU," Chao stated in his proposal.

Student and art department support have contributed to the idea of establishing a major in glass, he said.

No new funding, no additional expenditures, no new faculty and no new space are required to establish the major, he said.

Official designation for current course work is all that is needed, he said.

The outlined glass major requires 195 completed credit hours for a Bachelor of Fine Arts degree in glass art. The requirement includes 50 general credit hours, 23 elective hours and 122 hours in art and glass.

Both proposals are subject to University Senate's final approval.
Photos and story by Christine Dretke-Spotts

The art of GLASSBLOWING

The art of traditional glassblowing is being preserved at Ohio State by a dedicated father-son team.

Twenty-two-year-old Tim Henthorne and his father, William Henthorne, are the only two glassblowers in the glassblowing shop in McPherson Laboratory 122.

William, the shop's chief glassblower, has been blowing glass at Ohio State for 38 years. He learned the trade from his father-in-law who was the university's chief glassblower in the 1940s.

"Dad is what you could call a Renaissance glassblower," Tim said. "He uses a lot of traditional techniques."

Tim, a fourth-year student majoring in photography, has been studying the trade under his father for the past two years. He spends approximately 15 hours per week in the glassblowing shop.

"I'm torn between glassblowing and photography," Tim said. "I like them both."

The glass blowing shop does work for every department on campus.

A university service order is needed in order to get something done, Tim said.

Repair work accounts for approximately 50 percent of all work done by the Henthornes. The rest is composed of designing original glassware and copying commercially-made items.

Much of the glass blowing is done for graduate students involved in research. Often these research projects require specially designed glassware, Tim said.

"Students will come in with an idea and Dad will help them design a piece of equipment that will get the best results for their particular project," Tim said.

"Glass blowing takes a lot of practice and patience," Tim said. "I also learn a lot from watching."

For now, Tim concentrates on the less complicated jobs and leaves the extensive work for more experienced hands.

"It isn't as easy as it looks," Tim said.
Racks of different sized glass tubing line the walls of the glass-blowing shop.
Tim watches his father, William, carefully shape a section of glass tubing.
Tim waits as a glass bottle bakes in the shop oven. All blown glass has to be baked before it can be used.

Tim melts two pieces of glass together with a glass blowing torch.
Pear-shaped glass bottles cool on a mat before they are placed in the shop oven.
Glass blower turns craft into business

By Tracie Borstelman
Lantern staff writer

"Most of the people are just stunned...it's like saying I have a master's degree in cooking or something like that," she said.

Williams gets her ideas in different places. "I get my ideas from just looking," she said. Sometimes when she's troubled about something, she can get an idea and resolve the problem. She even comes up with ideas when she's playing tennis, she said.

Recently, a friend told Williams she needed to express some mood in her work to make a statement. "I do need mood as part of my statement," she said. "Right now I'm working on the music aspect." Music has visually been incorporated into her work. She was given some piano keys, and she put them into the wooden base of one of her more recent pieces.

Next, she would like to buy a clarinet or some other musical instrument and use parts of it in her future pieces.

Williams works as a production glass blower, but her teacher, Richard Harned, assistant professor of art, has given her a different incentive. "Richard has helped to show me that I do have skills, that I can sell this work and make a living at it. That's what I'm working at. Even though I have this nine-to-five job, he's trying to help me see that I have resources to do this myself, and I don't have to make paper weights and perfume bottles," she said.

For now, she will continue to make art and take the chance. She said it is good to be back in the university atmosphere where the overhead is low, but new things may come up in the future.

Mindscape, an art gallery in Evanston, Ill., has shown interest in her work. She looks to the future as being "scary," but at the same time she said she is quite excited.

Although her focus is on glass blowing, Williams also enjoys writing and dance. She's taken jazz dance lessons and refers to her writing as a way for her to "let her hair down," and be humorous. But glass blowing is more serious, and it represents to her the strongest of any art. "It's my art,"
Glass blowing requires imagination

Imagine yourself molding red-hot lumps of molten glass into transparent orbs that sparkle like diamonds in the sun.

The artistic possibilities are as endless as the imagination, at the Glass Blowing and Foundry Building located on West Campus.

Ferdinand Thieriot, a junior in glass, uses some of that imagination to blow and shape molten glass into delicate vases or abstract forms in the heat of 2,000-2,400 degree furnaces.

"That is really funny looking," Thieriot said after attaching a glowing glass "head" that ended up to be too small for the figure's body.

Glass is a very flexible art form, whether it is off-hand or blown. Mistakes can be easily corrected and artists can "play" with the glass by experimenting with different forms and ideas.

"If you get the right temperature and let gravity take over, the glass will come out how you want it," Thieriot said. "The art of off-hand glass is a fairly new field in this country."

Blown glass is a more common and popular form of glass art. Most of the work done at the glass studio is in the form of blown glass.

Blowing glass involves a three-step process that is repeated over and over, Thieriot said.

Glass is first heated in small furnaces called glory holes. Thieriot said. The glass is then taken out and cooled by shaping it on a large metal table called a marver.

Thieriot then blows into the pipe the glass is attached to, forming an air pocket inside the molten glass ball. This process is repeated until the glass reaches its finished size.

Thieriot then places the molten glass bulb into a ribbed optic-mold to create a swirled effect. He finishes the vase by adding a thin strip of dark blue glass to the rim.

The finished vase is cooled slowly over a period of several hours, in cooling "annealer" ovens. Glass is cooled slowly so it won't crack and break, he said.

The amount of time glass spends in the annealers depends on its thickness, Thieriot said. Solid glass objects take 40-50 hours to cool, while thin bulbs take only two hours.

Bonnie Biggs, who teaches beginning glass working, uses the glass studio to teach her students how to blow and cast glass. Casting, which involves pouring hot glass into pre-prepared sand molds, is the easiest form of glass art, she said.

Biggs said most of her students are not art majors.

Neon is a newer form of glass art that is offered as a two-and-a-half week workshop as part of Art 251. It is done at a studio in Hopkins Hall.

Glass teaching assistant Julius Prater said he feels privileged that the Arts College has both a neon studio and a glass blowing building available to its students. Most colleges do not have a working glass studio like the one that Ohio State operates, he said.

Photos by Christi Kolar
Story by Stefanie Vogley
Steel wool is used on a solid glass statue formed from molten glass.
Molten glass is poured into sand casts to make solid glass statues.

Ferdinand Thieriot puts the finishing touches on a vase blown from molten glass.
A 2,300-degree glass-melting tank made a fine substitute for a roaring fire yesterday for, from left, LaMark Crosby, Jeff Becker and Ellen Grevey. The three decided to cook their lunches of hot dogs and marshmallows on the tank, which was fired up for a glass-blowing demonstration at The Ohio State University. The demonstration was held to promote "The Glass Zone," an exhibit at Hopkins Hall Gallery, 128 N. Oval Dr.
OSU students blowing new life into old trade

By Tim Haskett
Lantern arts writer

OSU students are continuing the 2,000-year-old trade of glass blowing. The glass blowing foundry is set far aside from the everyday occurrences of typical campus life. It is nestled in a small grove of trees on West Campus, creating what seems to be a scene of serene tranquility—until one walks inside.

Temperatures in the foundry's three furnaces reach 2,000 degrees.

The entire foundry looks more like a workshop than an art studio until looking at the glass fish, vases and heads that line the walls. There is a real sense of work and creativity in the foundry's air.

Besides the furnaces, the foundry has sanding wheels, kilns and saws laced with diamond dust. One diamond saw needs a considerable amount of oil to reduce friction.

Kathy Gerber, a graduate from Illinois State University, teaches a glass blowing class to about six people. The class is open to all majors but it is mainly art majors and art education students who take the class, Gerber said.

"I have been blowing glass for about four years and came to Ohio State because it was one of only about 20 glass blowing programs in the country," Gerber said.

One reason for so few glass foundries on other campuses is that gas bills can reach $15,000 per year, Gerber said.

However, not just glass blowing occurs at the foundry. Students can etch, frost and sandblast their art for different designs and textures. There is also a studio for making neon lights, the Illinois native said.

The process of blowing glass is much simpler than one might expect. It begins with the glass being-melted down in the furnace.

Once the glass is melted, a five-foot long iron pipe is placed into the furnace to heat the tip. Then the tip is dipped into molten glass and when removed from the furnace the artist blows into the pipe, forcing air into the glass, thus creating a bulb. At this time, the glass can be shaped, twisted and pressed to the desired shape.

"The glass is usually rejected glass from glass companies. A lot of the time we get things like crystal stems," Gerber said.

At the end of each quarter the students from the glass foundry sell their pieces in a joint sale with the ceramics department at Hopkins Hall, Gerber said.

Robert Jones blows glass at the Glass Foundry at OSU.
Specializing in

- Repair and Modification of Scientific Glass Apparatus
- Custom Glass Fabrication
- Design and Consultation

Glass Blowing Shop

122 McPherson Lab
140 West 18th Avenue
292-7288

The Ohio State University
Stores Department
Who We Are & What We Do

Ohio State’s Glass Blowing Shop can meet all your needs for repair, modification and custom design of scientific glass apparatus. Our glassblowers are also available for consultation on intricate design work and can perform on site repair work in your lab as well as in shop services. Services can be obtained by using a 100-W Internal Order Form. Charges are billed monthly on your Stores Department detailed statement.

Other Available Services

Glass Cutting
Grinding
Knotching, reshaping, plate glass
Encapsulation under vacuum
Flameworking of Pyrex plate glass
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We Have Specialized Parts for Glass Repair

The following list will give you some idea of what you’ll find at the shop.

Pyrex and Quartz
Rod
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Socket
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Our Staff

Bill Henthorne, Senior Glass Blower, has over 44 years of glass blowing experience. Bill is assisted by another scientific glassblower with over 5 years of service to provide for your glassblowing needs.

For More Information

If you would like to know more about the Glass Blowing Shop and our services please call us at 292-7288, or stop by and see us. We are located in Room 122 McPherson Lab at 140 W. 18th Avenue.
Patience, artistry earn man award

By John C.S. Slack
Lantern staff writer

As the sky-blue flame licks around the edges of the glass tubing, it turns sun-bright orange. The glass begins to glow the same color, becoming molten hot where the flame touches it.

The glass blower removes the tubing from the flame, makes a few small turns, blows a puff of air into the end, and makes one last adjustment to make it just right.

It took only a matter of minutes to repair this piece of scientific glassware. It was done without taking one measurement, aided only by a practiced eye and years of experience.

"I found the work that I wanted to do," said Bill Henthorne, senior glass blower at Ohio State. "I’ve never hated to get up in the morning and go to my job in all these years, because it’s interesting."

Henthorne designs, fabricates and repairs scientific glassware, turning researchers’ drawings into quality glassware, according to a news release.

Henthorne said he is usually given a sketch to make a piece of scientific glassware to be used in research. "It may not work, and they may come back, and the glass apparatus may be modified, but that is research."

Henthorne first started as a glass blowing apprentice at Ohio State about 46 years ago and looks forward to people challenging him to make a new pieces of glassware.

"Somebody will walk in here today, maybe, and I’ll make something that I’ve never made before, and that’s the challenge," Henthorne said. "It’s handmade, and it’s one of a kind."

Henthorne’s attitude towards his work contributed to his receiving the Vice President’s Award for Exemplary Performance, given by the Office of Business and Administration. The award is presented to employees who "think out of the box," said Janet Pichette, vice president for business administration. These employees go outside what is required to complete their jobs.

Henthorne was one of several recipients of this award, Pichette said.

"It was really quite a surprise," Henthorne said. "I had no idea that I was going to be presented this."

This is the seventh year for the Staff Recognition Program, sponsored by the Office of Business and Administration, Pichette said.

Henthorne gave his own reason for why he was given the award. "It is basically for achievement above and beyond, and of course, they look for somebody that’s been here 46-46 years."

"They figure they had to do something, I guess," he laughed.

Henthorne was prepared to study horticulture and dairy technology at Ohio State after serving in the Navy during World War II.

A position opened in the glass blowing department, however, and at the age of 19, Henthorne started working for Ohio State at $104 per month.

Henthorne laughed and said he still has his first paycheck, which is now a little, yellowed piece of paper.

At the time Henthorne started, Ohio State's head glass blower was his wife's father.

Henthorne said he used to go in the basement of her house and watch his father-in-law run his neon sign business.

"I used to go down there and spend more time in the basement than we did on dates," he said with a grin.

Henthorne worked under his father-in-law for 18 years, and took over managing the department when he retired.

Henthorne said he can tell if someone really wants to blow glass for a living just by watching them for a few months.

"All you can do is show someone how to do it," he said. "You give them the glass and tell them to practice."

Henthorne said a lot of people don’t have the reflex ability needed to turn two pieces of glass at the same time.

"You have to turn two pieces of glass simultaneously to seal them together and often blow to make a seal," he said.

"As I’ve always said, the important thing (about glass blowing) is patience and having an artistic ability," Henthorne said. "This is what is required to be a good glass blower."
Torching!

Troy Harris, a graduate student in chemical engineering, prepares an item for class in the OSU Glass Blowing Laboratory in Evans Hall.
INTO THE FIRE

Erik Glaser heats a glass tumbler he created yesterday at Ohio State University’s Sherman Art Center at 1055 Carmack Rd. Glaser of Newport, N.J., is a graduate student in biomedical engineering at OSU. He said he is taking a class in glassblowing for the fun of it.
Handle with care

Eric Dennis, who will enroll as a graduate student in fall, works in Ohio State's glass studio on West Campus Monday.