September Minutes

The Hastings Art Club met Thursday evening, September 27 at the Hastings Public Library. The meeting was called to order at 7:05 p.m. by President Carole Meyer. Six members were present. There were no minutes. The treasurer's report was approved as read.

Old Business: There was discussion regarding the "Kool-Aid Days" participation and whether our "Edible Art Contest" and booth with brochures was sufficient to gain members versus having a hands-on activity for children. Experience has shown that people do not come prepared to exhibit, but rather come to take part in the activities. There was only one entry in the contest. If there is enough help, we could have activies such as drawing, coloring or painting acitvites for coupons. This will be tabled until a future meeting for futher discussion.

Carole brought examples of the brochures she made and displayed at the "Kool-Aid Days" booth in the auditorium.

Carole announced that the ANAC traveling show will need to be picked up from Red Cloud on April 6 and packed up by April 22. A place will need to be determined where to display the exhibit.

Carole reported that the annual "Earth Day" art competition at CCC could use some assistance next year organizing their competition. The information has already been sent out for this year. There is also an ESU art competition being held that according to Vicki Buss could use some help, but we might wait until asked before volunterring our assistance.

New Business: Dues are due: $16 for local and $7 for state.

An election was held for the Board of Directors with the following results: June Kehn, Kathy Nash, Trudy Messerli, Carole Meyer, and Cindy Uden. The board met and appointed Kathy as president, Cindy as vice-president, Carole as secretary, and Karren Carnes as treasurer.

The next meeting to be held on October 25 is changed. We will begin at 7:00 p.m. at the Graham Gallery to view the current show. A business meeting will follow at 7:30 p.m.at the Blue Moon. There will not be a meeting in November. The group will meet for dinner on December 6 at Taylor's Restaurant. It is Dutch treat and members are invited to bring a friend.

~Kathy Nash, secretary

October Minutes

On October 25, 2007, the Hastings Art Club met at the Blue Moon after viewing the exhibit at the Graham Gallery. Newly elected President Kathy Nash called the meeting to order at 8:10 p.m. with seven of the eight paid members present including a new member, Carol McKown from Juniata.

There were no minutes from the previous meeting held on September 27. The treasurer's report was published in the newsletter previous to the meeting, and Karren Carnes reported that the bank requires that new checks need to be ordered.

It was decided that the club would hold three business meetings during the year: January 24, April 24, and September 25. Programs could be scheduled on days other than the regularly-scheduled fourth Thursday of each month as sdone in the past.

It was requested and decided that the current membership list would be included in the first newsletter in January.

In March we need to choose the pieces going to the ANAC state exhibit. On April 6 the ANAC traveling exhibit will need to be picked up from Red Cloud. Fairbury will pick it up on April 22 so the show will be exhibited for two weeks. It was decided that the reception be held on Sunday, April 13. Cindy Uden will check with the Hastings Museum to see if we can hold the exhibit there. Carole Meyer will check with Central Community College to see if we can hold it there. They will report back to the board as soon as they find out, and the members will make the final decision where to hold the combination ANAC traveling show & HAC annual spring exhibit in January.

The holiday gathering will be Dutch Treat on December 6 at Taylor's Restaurant at 6:30 p.m. Guests are invited. Contact Carole by December 5 for reservations.

Karren will make reservations for our first "Meet & Eat", the winter business meeting to be held on January 24 at 6 p.m. at the Back Rib Restaurant in Hastings.

Carole will reserve the Hastings Public Library for February and March programs.

The meeting was adjourned at 9:00 p.m.

~Carole Meyer, secretary

January Minutes

Eleven Hastings Art Club members and one guest met at the Back Rib Restaurant on January 24, 2008, for the first "Meet & Eat". President Kathy Nash called the business meeting to order at 6:15 p.m.

The minutes of that last meeting were read by Secretary Carole Meyer and were then accepted. Treasurer Karren Carnes reported a balance of $374.24, but we owe ANAC $49.00 in dues for nine state members. The treasurer's report was accepted.

Old Business: Kathy thanked Carole for the new professional-looking brochures that she created. Some need to be taken to the tourism booth.

Kathy reported that our participation at "Kool-Aid Days" needs to be an activity rather than the competition as done in the past. Members need to help man the booth or eliminate the club's participation. Karren Carnes made a motion to discontinue the "Kool-Aid Days" participation. Vicki Buss seconded. Motion carried.

ANAC members need to bring their art pieces to the next meeting for selection to go to the 2008 state competition. Six pieces is our club quota.

Carole reported that the 2007 ANAC traveling art needs to be picked up from Red Cloud on April 6 and will be displayed at CCC in the Phelps building. Whoever picks up the artwork should put in for reimbursement from ANAC. We should check with Fairbury to make sure they are planning to pick up the art when they are supposed to. The reception will be Sunday, April 13. Steve Meyer offered to cater the reception. Vicki Buss made a motion to accept his offer in lieu of paying local dues. Julie Willcock seconded. Motion carried.

New Business: Don Robertson donated $100 for rent for Studio A. Vicki Buss made a motion that the club waive the local dues for Don in return for his donation. Marilyn seconded. Motion carried.

Vicki Buss offered to host a demonstration on "Dichroic Glass" at 2:00 p.m. on Saturday, March 29. On February 28 we will have a movie at the library. Kathy Nash will bring refreshments. Kathy will host a bon-fire and potluck on Saturday, Juen 21. Everyone is asked to bring a covered dish.

Karren Carnes asked if we want to host the 2009 ANAC traveling show next year. Carole Meyer made a motion that we host it again. Julie Willcock seconded. Motion carried.

The meeting was adjourned at 7:10 and reopened at 7:20. Vicki Buss suggested a retreat in the summer. It was decided that we would discuss this further in March. Vicki Buss made a motion to move the business meeting from April to March. Julie Willcock seconded. Motion carried. The meeting was adjourned at 7:30 p.m. followed by dinner.

~Carole Meyer, secretary

(cont. from p.1)

can be used, but it's better to have one that's specifically engineered for firing glass.

Your kiln must have the capability to accurately monitor and display the inside temperature. This is usually done with a pyrometer, a precise thermometer that is often coupled with a controller, a device that helps manage the firing of the kiln. A controller can greatly simplify the task of precisely directing and monitoring the temperature changes inside the kiln. You can get by without a controller if you're willing to keep a closer eye on the kiln, but a pyrometer that can accurately measure the temperature inside the kiln is essential.

In addition to the kiln, you need a shelf to set the glass on and (if you want to slump) a mold to help shape the glass. Shelves are generally made of clay or a lightweight refractory material, while molds can be made of clay, stainless steel, or various kinds of cements and plaster mixtures. The key is that both the shelf and the mold can withstand heating up to a temperature of 1700 degrees Fahrenheit or so and then cooling back to room temperature.

You'll also need some sort of glass separator to keep the glass from sticking to the kiln shelf and the mold. The separator can be a special kind of paper that glass won't stick to at high temperatures (called fiber paper) or it can be an emulsion that you apply to the shelf, then allow to dry (commonly called a shelf primer or kiln wash). Without this separator, glass will stick to the shelf or mold when it gets hot and your piece of artwork will be ruined.

If you have some glass, a kiln, a shelf or mold, and something to keep the glass from sticking, you have the basic ingredients to begin fusing and slumping. Add some tools to help cut and the glass and a few essential pieces of safety equipment, and you're ready to begin.

You can use any glass for fusing and slumping, but some glass works better than others. Even ordinary window glass (called *float* glass by people in the field) can be used, although most people prefer colored glass like that used in stained glass work.

It's likely that you will want to combine more than one different sheet of glass in your projects. If so, then you'll need to make sure the glass you select is *compatible*. Compatibility is a way of saying that the difference pieces of glass you use expand and contract at similar rates. Using incompatible glass may cause cracking or even shattering of the piece when it cools.

Glass Types and Forms

In addition to compatibility, glass artists also differentiate among different types of glass in many different ways. One of the major criteria for differentiation is the transparency of the glass. Opaque glasses that do not transmit light are generally referred to as *opaques*, as *opalescent* glasses, or as *opals*. See-through glasses of various colors are usually called *transparent* or *cathedral* glasses. Combining more than one different opalescent or cathedral glass or color in a single kiln-formed work is common.

Several different companies offer lines of tested compatible glass, with the largest and most popular being Bullseye and Spectrum. Other companies offering tested compatible glass include Uroboros, Effetre (Moretti), Wasser, and Gaffer.

Bullseye, which has produced tested compatible glass since the 1970s, is generally acknowledged as the market leader, with a broader product offering than Spectrum or other brands. Spectrum's tested compatible program, initially launched in Spring 2000, contained glasses made by both Spectrum and Uroboros, and is marketed under the *System 96* name. Although the two product lines behave similarly in the kiln, they are not compatible, so most glass artists and hobbyists choose one or the other brand as their primary glass for fusing and slumping.

It should be noted that Bullseye, Spectrum, Uroboros, and many other firms also manufacture glass that is not guaranteed compatible. Sometimes the glasses made by these companies tests compatible for fusing, but often it does not. If you wish to use any of these glasses for kiln-forming projects involving more than a single sheet of glass, you will need to test for compatibility.

Virtually any stained glass, whether tested compatible or not, can be treated with an iridescent coating that causes the treated side of the glass to take on a metallic sheen. Some liken this effect to a shimmering rainbow. The shimmer goes away when the piece is lit from behind, allowing the normal color of the glass to shine through.

Another popular kind of glass coating, called *dichroic*, has the unusual property of reflecting one color while it transmits another. This means that the different colors can be viewed by examining the glass at different angles. This unique glass is manufactured by spraying a thin chemical film on the glass. This must be done in a controlled environment in a vacuum chamber, making dichroic glass one of the most expensive glasses made for kiln-forming. Because of this expense, dichroic glass is more commonly used in jewelry and similar items, or as an accent in larger scale fusing projects.

One final type of glass that is often used for kiln-forming is *float* glass. Made by *floating* molten glass on a bath of molten tin, float glass is better known as common window glass. It is inexpensive and widely available. It also works well in the kiln, but care should be taken to test for compatibility if different brands and types of float glass are mixed together. If at all possible, cut pieces to be fused together from the same glass sheet.

Although some colored varieties of float glass are available, it is most commonly found in a clear (often slightly greenish) formulation.It tends to slump and fuse at slightly higher temperatures than most art glass (about 75–100° F higher), and can be prone to devitrification. Its COE depends on the specific formulation used and can be as low as 83 or as high as 90, but it generally ranges from 85 to 87.

Glass is available in several different shapes and sizes, the most common are:

- **Sheet glass:** relatively flat, up to 30" wide. Sheet glass is typically 1/8" (3mm) thick, but thinner and thicker varieties are available.
- **Frit:** small, irregularly shaped glass pieces, available in sizes that range from around 1/2" (6mm) in width to powders.
- **Stringer:** long, thin threads of glass, about 1mm in diameter and up to around 18" (45cm) in length.Some thicker stringer and related shapes (called *noodles*) are also available from some manufacturers.
- **Rods:** round cylinders of glass, about 4–5mm in diameter and up to around 18" in length
- **Shards and confetti:** slices of glass that are slightly thicker than a sheet of paper
- **Cullet, billets, patties, and dalle:** various sizes and shapes of glass *chunks* used primarily for casting.

Area Exhibitions and Competitions

MONA
2401 Central Avenue, Kearney

- **through April 13**–*Fee! Fie! Foe! Fum!*, installation by Leslie Iwai, biomorphic and fluid clay pigeons, feathers, and stone incorporated into performance art, based on Jack and the Beanstalk.
- **April 8–August 17**–*19th Century Images of Nebraska*, Nebraska historical prints and work depicting Nebraska from the 1800s to early 1900s.

Graham Gallery
617 West Second Street, Hastings

- **March 31–April 26**–*The What's Up Show...Old, New & Curiousr,* by paintings and photos David Lovekin. Reception 7–9 P.M. Saturday, April 5.
- **May 1–23**–*Hastings College Junior Thesis.* Reception 7–9 P.M. Saturday, May 3.
- **June 2-30**–*Lincoln Weavers.* Reception 6–8 P.M. Saturday, June 7.

Prairie Winds Art Center
112 West Third St., Grand Island

- **April 1–30**–*In the Mind's Eye***,** paintings by Ken Bassett, Donna Binfield and Sandra Newman. Reception 5:30–8:30 P.M. Friday, April 4.

L'eglise Art Center
1105 K Street, Aurora

- **through April 26**– *Spring Fever,* Sandra Albers & Traci Blehm-Rochholz
- **May 2–June 28**– *Art Educators Show*

New Gallery Hours:
Friday 9:00 A.M.–3:00 P.M.
Saturday 11:00 A.M.–4:00 P.M.
by appointment (402) 631-9578

WANTED

Caricature artist for "Harley and Hotrods" themed event on May 10 in Marquette. Five percent of sales goes to the veterans organization. If interested, contact: Randy at 308-380-8656 or Micky at 308-390-3094.

MISSING ITEM

Vivitar Instant Slide printer that takes 35mm film slides (or negatives) and copies them onto Polaroid 669 or other packs to make printed transfers. Was borrowed about 5 to10 years ago and never returned. Anyone knowing of its whereabouts, please contact Don Robertson at 463-5059.

Hastings Art Club
P.O. Box 2161
Hastings, NE 68902-2161

SPRING 2008

Hastings Art Club

CALENDAR

Saturday, March 29
2:00 P.M. *Dichroic Glass* demo by Vicki Buss, 3875 W Sundown Rd, Ayr

Sunday, April 6
Pick up ANAC art from Red Cloud and hang exhibit in Phelps Bldg at CCC

April 6–22 Annual Spring Art Show
8:00 A.M.–9:00 P.M. Mon.–Thurs.
8:00 A.M.–12:00 noon FRI.
closed weekends except for reception
Sunday, April 13 Reception
1:00–3:00 P.M. Phelps Bldg, CCC, E Hwy 6, Hastings

Tuesday, April 22
Take down show and pack up ANAC art to be picked up by Fairbury club

Thursday, April 24 Business Meeting
7:00 P.M. Choose ANAC art to go to state competition (payment due immediately), Hastings Public Library, 517 W 4th, Hastings

Thursday, May 29 TBA

June 4–6 ANAC Conference/ Competition, Leadership Center, Aurora

Saturday, June 21
5:00 P.M. Bring a covered dish to the bonfire, 32251 Rd KL, Harvard

Treasurer's Report

Paid members to date:

Brookhart	HAC + ANAC
S. Buss	HAC
V. Buss	HAC
Carnes	HAC + ANAC
Nash	HAC + ANAC
McKown	HAC + ANAC
C. Meyer	HAC + ANAC
S. Meyer	HAC
Reynolds	HAC
Robertson	HAC
Sorensen	HAC + ANAC
Uden	HAC + ANAC
Willcock	HAC + ANAC
Weir	HAC + ANAC

Fusing, Slumping, and Other Warm Glass Processes

taken from ***Contemporary Warm Glass: A Guide to Fusing, Slumping, and Related Kiln-forming Techniques*** by Brad Walker

The term *warm glass* refers to fusing, slumping, and other glass processes which take place at temperatures between 1100 and 1700 degrees Fahrenheit (600–925° Celcius). That doesn't sound warm, but it is when you compare it a glassblower's working temperatures, which often exceed 2000 degrees F.

Another term for these processes is kiln-forming. It's not unusual for the two terms — *warm glass* and *kiln-forming*— to be used interchangeably, although in recent years *kiln-forming* has become the preferred term, while *warm glass* has increasingly been used to refer to this website.

Glass fusing is the process of using a kiln to join together pieces of glass. If you apply heat to glass, it will soften. If you continue to apply heat, the glass will become more fluid and flow together. Two or more pieces of glass will stick (or *fuse*) to each other. When the right kind of glass is heated and then cooled properly, the resulting fused glass piece will be solid and unbroken.

Many people also use the word *fusing* to include bending and shaping glass using the heat of a kiln. This manipulation can take many forms, but the most common is slumping, where a mold is used to cause already fused glass to take on the shape of a bowl, a plate, or similar object. Other kinds of manipulation done with fusing techniques are combing, which involves using a tool to distort the shape of the glass while it is hot, and fire polishing, which uses a kiln to heat the glass just enough to make it shiny and smooth.

Another category of kiln-forming activity involves the use of molds to form glass into more complex shapes. Virtually any shape that can be formed in clay or wax can also be made in glass. These more advanced kiln forming processes include kiln casting (melting glass into a mold inside a kiln, *pate de verre* (forming shapes by heating a *paste of glass* inside the kiln), and glass casting (pouring molten glass into a mold). These processes tend to be more complicated than basic fusing and slumping.

The table below summarizes the major kiln-forming techniques.

Kiln-forming Processes and Temperatures

Process	Definition	Fahrenheit	Celsius
Full fusing	Joining two or more pieces of glass by heating until they flow together	1450–1550°	788–843°
Tack fusing	Fusing until the glass just sticks together, with each piece retaining its individual character	1350–1450°	732–788°
Slumping	Shaping glass by bending it over or into a mold	1200–1300°	649–704°
Combing	Manipulating glass by raking a tool across the surface of molten glass	1650–1750°	899–954°
Fire polishing	Heating glass just enough to round the edges and give it a shiny appearance	1300–1400°	704–760°
Kiln casting	Fusing small pieces of glass, called *frit*, inside a mold	1500–1600°	816–871°
Pate de verre	Fusing a paste made with small pieces of glass inside a mold	1300–1500°	704–816°
Glass casting	Melting liquid glass into a mold	1500–1700°	816–926°

*Note that the temperatures given are for typical fusible art glasses. Other kinds of glass may require different temperatures.

Getting Started

Aside from the glass, the most important item you need is a kiln. Most kilns used are electric and are capable of reaching temperatures of around 1800° F. Kilns are available in sizes ranging from less than a cubic foot to big enough to fill a room. Kilns made specifically for ceramics

(cont. on p.3)