



AUSGLASS

The Australian Association
of Glass Artists





Organisational matters to do with Ausglass are starting to settle down, thanks to the efforts of Brian, Cherry, Peter, Mary, Sergio and the terrific trio Pell, Joy and Bernice. The first Ausglass executive sent cartons of papers to the Melbourne executive who sent more to the Adelaide executive who sent half a truck-load back to Sydney; it seems like some sort of vendetta!

Discussions for the 1985 Sydney Conference are well under way. Your State representative has the minutes of these discussions if you want to know the current thinking. The executive is particularly concerned to know your thoughts on the conference as soon as possible.

Contact and communication are essentially what Ausglass is all about and the executive are conscious of the problem of Ausglass appearing to exist only in the city or State that houses the executive and has control over the box of papers. Through the newsletter, correspondence and personal contact we would like to deepen the national scope of Ausglass between conferences.

Help us do this; send news and information in.

Better still - ring up when you come to Sydney!

Regards,

Michael Keighery,
PRESIDENT.

EDITORIAL

Hi... As was stated by one of our learned colleagues, 'The wheel is discovered yet again', so we find Ausglass has made a full circle and is now back in the hands of the N.S.W. executive. From a small enthusiastic start in 1978, of around 40 people it has travelled to Melbourne then Adelaide and is now back in Sydney, the membership having grown to around 400. We're a little hazy as to the exact membership as the looseness of the organisation seems to have some inherent qualities, but despite these it never lacks enthusiasm.

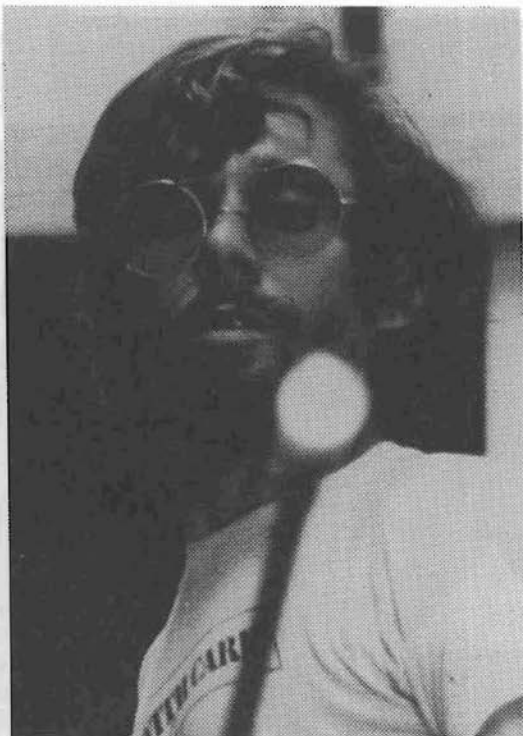
Thinking back to the start in '78 and that first gathering which selected a name for our fledgling group, by a majority vote, the name 'People in Glass' (P.I.G.) was adopted. The Big Bad Wolves of social conscience, however, wouldn't accept our decision and in our "jelly-like" state we changed it to 'Ausglas', as more appropriate and then finally in Adelaide correcting the apparent typing error, added the missing 's' to make it 'Ausglass'.

Whatever happened to 'Oz', the universally understood word for Australia. --- Will Vegemite succumb to social pressure and become 'Puissance Vegetal'.... Well, enough of my social comment.....

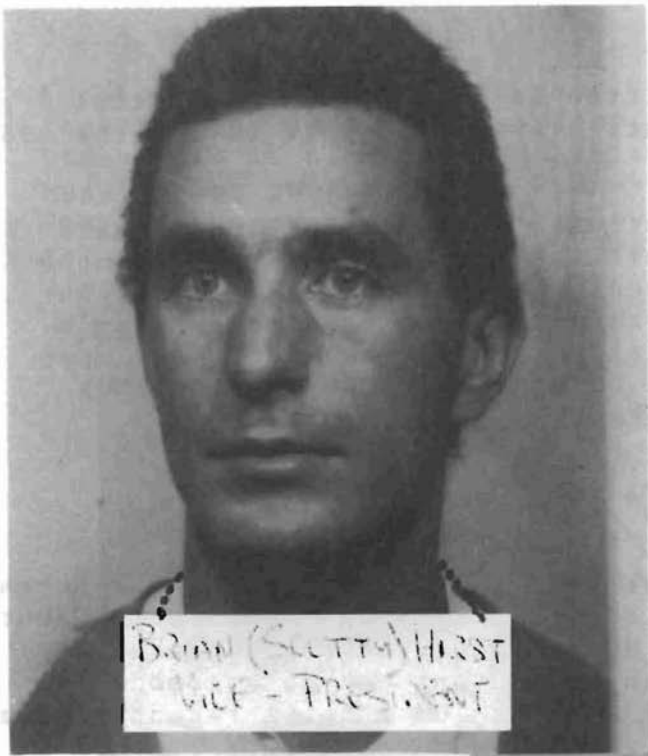
Welcome everyone to our new look newsletter. We intend to publish it every 3 months in this present format. We need to fill 32 pages each time so please write in with articles or comments for inclusion in the magazine.

I hope you all like the changes.

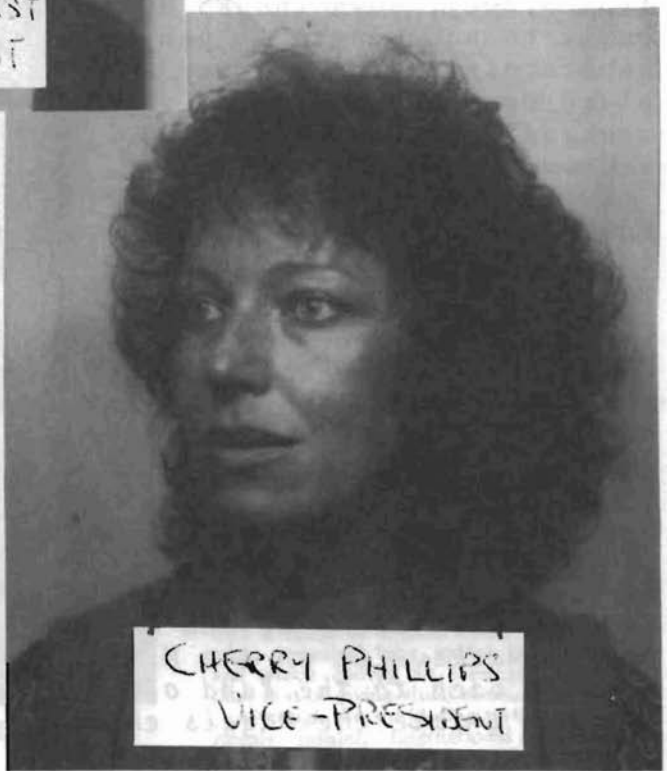
Bye for now,



Peter Minson,
Editor.



Brian (Sutton) Hurst
VICE - PRESIDENT



CHERRY PHILLIPS
VICE - PRESIDENT

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CONFERENCE '85

The N.S.W. Ausglass committee is already making initial contacts with glass artists overseas to join us for the 1985 conference.

We have maintained contact with Paul Marioni and Richard Meitner (our last guest artists), as we hope to draw upon their knowledge of the local and international scene. Our own endeavours include working through foreign embassy's (Turkey and Czechoslovakia) to obtain the widest and most varied options from which to draw upon. We also welcome anyone with specific interests and input to contact us in this regard.

WORKSHOP INFORMATION

'Kunumbra' is a 10 hectare farmlet on the edge of the Nepean Gorge about 15 km from Picton, just on one hours drive south from Sydney, down the F5 Hume Highway. A Lodge has been built to accomodate 14 people. Tutors can be accomodated separately. Main activity area is 10m x 5m. A recent Stained glass workshop was held, with Cherry Phillips as tutor. A weekend core course cost \$80 including all meals, accomodation and tuition.

For information on upcoming courses write to;
P.O. Box 1, Wilton, 2571, N.S.W.

International: Correction -

'New Glass Review 4' - Corning New York 1983;
Under 'Countries Represented' should include
'Hirst Brian (with Anita S. Pate)' in the Aussie heading,
not the United Kingdom.

WHISPERS: - I hear that Doc Docherty, that excentric inventor of Hot Glass gadgets, is back from his stay in Scotland. It seems he and his family have chosen to thaw out at Macksville on the N.S.W. North Coast. Welcome back to the land of Oz Pete, Anne and family. (Couldn't take the Haggis eh?)

MEDIA WATCH

Local: On June 16 of this year "The Sydney Morning Herald" reported the opening, in Sydney, of 'The International Directions in Glass Art' Exhibition at the Power House Museum. The photograph of Sidney Hutter's work "Plate Glass Vase #39" was printed upside down and the #39 was referred to as the price (\$39). Me thinks I'll prefix my next series with 1000, just in case.

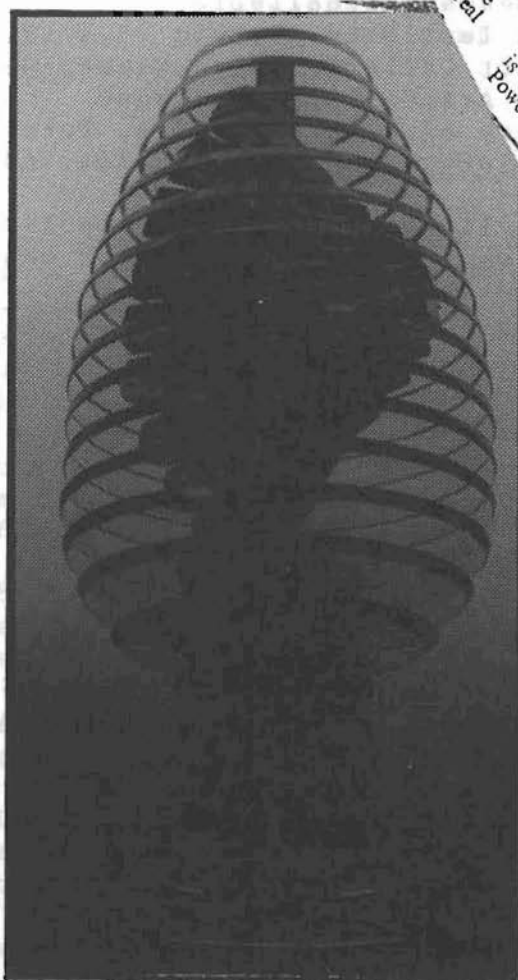


Plate Glass Vase \$39 by Sydney Hutter.

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ART

ANNA SHORT

Glass art exhibition

The photograph of Plate Glass Vase No 39, in other words, is part of an exhibition of new glass works at the Power House Museum.

Yesterday's Herald was accidentally reversed. The figure 39 refers to the title given to the work by the artist Sidney Hutter and not to the price. It is a unique material for artistic expression in that it is literally too hot to handle.

Exploring both the hot and cool implications of glass as an art form is an exhibition called International Directions in Glass Art, now at the Power House Museum in Ultimo.

As its title suggests, the exhibition is less about glass than about ideas explored through the glass medium: like glass itself, it both reflects, and opens a window on, international trends in art, and represents almost an homogenising of stylistic trends and influences.

At the same time, it presents us with a range of objects whose appearance outweighs any useful function, and which convey no message other than that of giving visual pleasure.

Although the world of glass is notoriously insular, International Directions in Glass Art is a pointer to the

QUESTIONNAIRE TO GALLERIES

Within the aims of disseminating information, a "Gallery Policy Questionnaire" has been drawn up, to survey gallery policy in relation to Australian Glass.

We have sent this questionnaire to:-

P.M. McCawchey, at the National Gallery of Victoria, Melbourne
Don Gregg, at the Tasmanian Museum and Art Gallery, Hobart
Colin Jack-Hinton, of the Museums and Galleries,

Northern Territory, Darwin

Judy Le Lievre, of the City Art Gallery, Wagga Wagga

Glen Cooke, at the Queensland Art Gallery, Brisbane

Robert Bell, At the Art Gallery of West Australia, Perth and

Dick Richards, at the Art Gallery of South Australia, Adelaide.

In the questionnaire we asked if the Gallery has a policy on the collection of glass, and what that policy is, or what general principles are used in the acquisition of glass.

For example;

In the collection is there:

- a) Historical glass (flat/blown)
- b) Contemporary Australian glass,
- c) Contemporary International glass.

We also asked what are the criteria for collecting contemporary Australian glass

- a) Functional
- b) Sculptural
- c) Innovative.

In conclusion we asked if the gallery collects representative examples of known artists only ... and invited any further comments on any aspects of glass in Australia.

So far we have received two replies. The first from Judy Le Lievre, Director of Wagga Art Gallery, in which she states:-

"The Wagga Wagga City Art Gallery policy states that it will acquire glass. Section 3 of the Acquisition Policy reads: 'To develop a major collection of glass by prominent Australian Artists.'

"The policy does not exclude International Artists and we intend also to purchase a limited number of their works."
 "The criteria for selecting Australian work are the same as for International pieces: that they are innovative/breaking new ground; and both artistically and technically excellent."
 "Australian glass is still in its infancy thus few workers consistently achieve these criteria. However, as the studio glass movement develops here I have no doubt that Australian artists will produce work comparable to that of the best overseas workers."



The second reply we received is from Glen R. Cooke, the Curator of Decorative Arts at the Queensland Art Gallery. He states:-

"The Queensland Art Gallery has in its collection a small group of historic glass including some English glass of the early nineteenth century, including a very fine table stand and a good group of Bohemian glass (42 items) from the latter part of the century. The Gallery recently purchased some fine examples of Art glass including examples of Tiffany, Daum, Argy-Rousseau and Joetz, and hopes to bridge the gap to the small group of Scandanavian glass purchased in 1968 from the Design in Scandanavia exhibition."

"The Gallery has access to a small fund donated by A.C.I. Glass Pty Ltd. through the Queensland Art Gallery Foundation for the acquisition of contemporary Australian glass. Works already acquired include Julio Santos, Stan Melis, Warren Langley, Giselle Courtney, Nick Mount, Sam Herman etc. while Ann Dybka has been commissioned to engrave a piece for the collection."

"When acquisitions have been completed it will be displayed as the A.C.I. Glass Collection."

We will publish further replies in future newsletters.
 Cherry Phillips
 & Brian Hirst.

GALLERIES AND CRAFTSMEN - A TWO EDGED SWORD

Recently I was talking to Michael Keighery about the relationship between artists and commercial galleries and what I felt was a lack of professionalism on behalf of many exhibitors. Michael offered me the opportunity to air some of my views in this newsletter and so I have jotted down a few of my feelings. They are almost in note form and I hope that they will generate some discussion as I feel that it is an important subject. I paraphrase the article by saying that most of it comes from a recent lecture I gave at the Crafts Council of N.S.W. and also that by the time it goes into print Market Row will have closed its doors for the final time.

One of the basic premises that underly the relationship mentioned above is that a gallery must be able to sell some of the artist's work. Before I ventured into the gallery game I felt that the directors who dealt with craft were not doing a particularly good job and that I could fill in the vacuum which they had created. A year later I feel that I have in the main failed. I failed because in the first instance there were many times where I was not able to sell the objects. Not because I didn't have the clients but because I didn't have the objects.

I write in generalisations of course, but promises it seems are meant to be broken when one is dealing with craftsmen. We would agree on an exhibition and the month before it would be cancelled; I would ask for an exhibition and would receive a showing; I would give a deadline and objects wouldn't arrive; I would ask for new work and I would receive work still labelled by the previous gallery; I would arrange a meeting with a client and the craftsman wouldn't turn up, or at least come late. My hands were not always clean but I found it easier to explain my mistakes and faults rather than those of the artists' to the client.

Selling is a difficult enough exercise, but when you begin with some of the handicaps I have mentioned it becomes almost impossible. For some mysterious reason, all the commercial

art gallery directors I have spoken to don't have the same problems. I am not sure whether it is because the art gallery network has been in operation for a longer period of time, or whether there is a difference between the artist and the craftsman (and I won't get into the perennial argument about art and craft ...I am using the different terms purely to make a distinction in this argument), or because of historical reasons, when the craftsman was an artisan and need to sell his skills to many patrons. In the present this all means that the craftsman refuses to identify with one gallery as his sole agent, and retails wherever possible.

To purchase a well known artists' (e.g. painter) current work I normally can go to only one gallery, in many cases this gallery is the sole agent throughout Australia. To purchase a well known craftsman's work I can go to numerous places, from a shop in a rural setting to a major gallery, or even directly from the artist. It makes it very difficult and not profitable for the gallery director to spend too much money on publicising the craftsman's work, because the return could go to any number of outlets. I believe that this is the reason why almost none of the commercial galleries in Sydney are prepared to exhibit craft.

To be able to sell craft in a meaningful way it is essential, I feel, that individual craftsmen be identified with specific galleries. In the long term the benefit will be reaped by both the artist and the gallery. Apart from being able to publicise the artist's work, the gallery will feel confident in outlaying money which it will eventually be able to recoup through sales. It is a nice feeling to be a patron, a Medici of the Twentieth Century, but unless the gallery can run as a profitable business it won't be able to stay in operation. I know that the relationship between the artist and the gallery is a two edged sword. The artist has expectations from the gallery and these are also not met. However, I feel that the responsibility can be taken by the artist. After all, there are more artists than galleries, artists represent only themselves and therefore have more time than the director, the artist can get a contract drawn up, the artist can choose to exhibit elsewhere etc. etc. So, although it is a two edged sword, the honest artist can take a

positive advantage of a gallery and use it to the mutual benefit of both. There is not enough space to go into detail complexities of the relationship by which artist and gallery are bound. However I feel very strongly that with a professional and positive attitude (which as I said is lacking in many cases) the artist can have the upper hand. By dealing fairly, punctually and honestly with the gallery, it is the artist who will benefit in the long term. A gallery owner can become a shopkeeper or anything else (as in my case) the artist needs to always live by the process of creating art.

Joe Eisenberg.

Co-Director Market Row Gallery.



SAGGERS GLASS CONFERENCE - NEW ZEALAND

A 6 day hot glass section - on technique,

A 10 day cold glass section - on design.

Tutors: Hot glass; FRED DADEN - ENGLAND

MIKOTO ITO - JAPAN

MARVIN LIPOFSKY - U.S.A.

Cold glass; JOHANNES SCHRIETER - WEST GERMANY.

This conference was held at the hot glass studio "The Glass Plant" owned and operated by Tony Kuepfer in Inglewood. It is an old church with the gallery in the main section, living quarters in the rear and a separate hot glass section built on the side.

The conference was attended by 33 Kiwi glass people, hot and cold, and 2 hot and 5 cold glass people from Aussie. Virtually everyone boarded at "Forrestal House", an old convent now converted for conferences. For what seemed a ridiculously low figure we were all fed and very well looked after for the duration of our stay. Some elected to live in caravans in the grounds of the convent, all appropriately named "Inglewood Ritz", "Inn on the Park" and of course "Inglewood Hilton". The rest lived inside in shared rooms.

The first night was a dinner in the local hall, excellent food and wine and introductions all round for the visitors. Tony explained the conference format and Forrestal House rules. He suggested showering together so as not to overtax the hot water system. It couldn't cope with more than 20 at a time. We all agreed to help the hot water system. The night finished with a film on blowing glass by Dick Marquis, shown by Marvin. Marvin by now was getting to understand a Saggers conference format. He had inadvertently been left at Auckland Airport for 4 hours and then had bought lunch for 2 Kiwi and Aussie hot glass blowers because he was the only one with money to pay the bill when it was presented. Never the less a good time was obviously going to be had if the first night was any indication.

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An exhibition of glass work, hot and cold, had been organised for the first weekend, to be held in the local town hall. This meant a display area had to be set up on the Friday night. An amount of builders scaffolding and shelving, mirrors and lights were tackled by hot and cold glasspeople. It seems that the creative talents are hard to control in those circumstances and a rather abstract display stand was built by the hot glassies, and the cold glassies finished it off with lights and arranged the glassware, all accompanied by ample amber fluid to wash the dust from the dry throats of the workers. An amazing amount of work was sold over the weekend, obviously a very well educated and aware local population. Monday saw a number fronting the local bank to be identified by Tony to the manager and collect their money from sales. Sunday night a lethargic few headed for the town hall to pull down the structure and pack away work not sold. The wear and tear of a conference was starting to show already.

On Friday the workshops started in earnest with Fred, Mikoto and Marvin giving demonstrations of their respective techniques. On the second day 5 enthusiastic, highly skilled glassblowers and Marvin hand cast 40 "MARVIN" hot lips, in readiness for the presentation at the end of the conference.

Fred is a master glass maker and endlessly made large platter, bowls and stem wine glasses for anyone who asked.

Mikoto made cased pieces which he sandblasted designs on later in the week. He works with a fine understanding of hot glass and has beautiful control over the material.

Marvin showed a great degree of patience with his assistants as he proceeded to empty the tank while making one of his "Controlled Accident" art pieces, aptly titled "The Inglewood Spring Series" in honour of the conference.

Most evenings were spent watching slides of peoples work, both flat and hot glass, and a large and varied collection of work from around the world was shown by Marvin. Those who escaped from these sessions were to be found at the local pub tasting the local brew and practicing pool in readiness for the Kiwi-Aussie clash later in the week.

Wednesday was the last day for the Hot Glass workshop, so we had a party that night. It started at the local pub with a pool and dart competition. A N.Z. - Aussie challenge in pool began, which the Aussies won, carrying on the winning tradition set at the Adelaide conference earlier this year. To commemorate this occasion a glass cue has been reduced to powder and sealed in a glass tube, symbolic of "ashes", to be played for at the next conference where Sagggers and Ausglass meet. After tea the party started in earnest at The Glass Plant and raged till the early hours. Fantastic dancing skills were displayed by everyone including Mikoto, who ended up with an injured ankle that needed putting in plaster. Obviously you have to be fit and tough to attend a Sagggers conference and survive.

On a serious note now, I found the conference very informative and certainly the intimate atmosphere of 40 people working and living together in a confined area contributed to a successful meeting. Speaking only for the hot glass section, the effect of having 3 glass masters of that calibre in one spot for so few people can only be very stimulating and rewarding. I enjoyed the conversations with them all and found each very helpfull to the extent I wanted to pursue.

Normally I would wonder what it is the Sagggers have that attracts 3 such experts to their conference. Having been there and survived it all, I now know. They will be hard pressed to keep me from the next one.

Finally these thoughts and questions are still to be answered:

- 1) How many Sagggers can you fit in a Datsun 1000 at 11.45pm While it is pouring with rain?
- 2) Which Sagger collected snow from Mt. Egmont for his tutor? It's 8500ft high.
- 3) Which Sagger fell at the feet of an Aussie after assending the mountain?
- 4) Which Sagger lost her dress at the party and who ended up wearing it?
- 5) Did the Aussie ever get his washing back?
- 6) A Sagger proverb: One Sagger in the car is worth 38 in the bus!

"Microlite".

REPORT ON FLAT GLASS DESIGN WORKSHOP

I was one of seven Australians to attend the S.A.G. Conference in New Zealand, at which Johannes Schreiter conducted a ten day design workshop. The flat glass participants were: Les Baxter, Joy Ballard, Gisela Hunter, Klaus Zimmer and myself. Even now it is hard to convey what was expressed during this period but I shall focus on some of the major points that made this experience so memorable for me.

On the first day we sat down to listen to Schreiter outline the proposed ten day workshop. Many people had questions to ask but within the first three hours I found my immediate questions answered. Johannes talked about "art" not its definition which is indefinable, about various philosophies on art, the importance of art in society and how artists express themselves. For example Rothko, Klee and Cezanne, the significance of composition, colour and texture. He stressed the importance of the Idea being the major subject of creative free art.

As the basis of the workshop was design, Johannes proposed two exercises from commissions he had found challenging. One a small crypt window in a medieval church, and two, a stairwell window in the Swansea College of Fine Arts in England. Johannes felt it was important to work on a project we were detached from. He showed us exercises to attain fresh ideas by using different mediums; collage, charcoal, crayon and paints, to go for walks and look at the shapes and compositions in nature. To release the unconscious mind, to create the unexpected. To experiment, to explore, to "play".

Many of us were self-taught, with no formal art training so each morning we would discuss a particular topic. The qualities of colour, space, light and environmental effects, with specific reference to artist's work and their theories. For example: Henry Matisse's windows in the Chapel of the Rosary, Venice are bright and joyous, which suits their church environment, yet superimposed into a library setting the effect would be distracting. On an architectural scale large blocks of colour give the illusion of a smaller space

and small blocks of colour give the impression of a larger space. Some colours recede or advance depending on mass correlation. The qualities of line was discussed. Schreiter feels that when he designs "All lines represent the inner-being, the soul of you." We talked about church commissions and how he approaches his work. "It is not the purpose of art to make people comfortable, when doing a church commission why do something they already know, stimulate their minds with new ways of seeing." We also discussed complexed plural messages which can be expressed through a sign or symbol. This knowledge is universally understood i.e. the sign of the cross or an anti-nuclear sign, yet, when explained in our own terms and understood, this achieves creative free messages.

Johannes was working with us on an individual basis and each day he would see the progress of our work and encourage us to take a step further ahead. His approach was totally art oriented. I questioned him several times saying that my design would be impossible to make in glass, yet each time he replied 'nothing is impossible', there are always ways of solving structural problems afterwards, most important is the original idea to be expressed and explored later within the confines of the window space. His emphasis was on developing us as artists with our own identity, he was the catalyst to help us discover this. Yet we must be prepared to struggle and be determined to work through this just as he has and does to find fulfillment in ones own work.

Coinciding with the conference was the opening of the 'Pacific 83' Glass Exhibition at the Govett-Brewster Art Gallery in New Plymouth. Several notable Australians, Warren Langley, Nick Mount, David Wright and Klaus Zimmer were represented in this exhibition. The displaying of the work generally was of an excellent standard, most of the flat glass panels were in light units or sensitively hung to their best advantage. Schreiter had two panels displayed. One an autonomous panel '81 and the other a duplicate of the left window, south wall of the baptistery in the Munsterkirche St Bonifatius, Hamelin 1976. Both were very exciting to view, and study at first hand their construction. Several nights later Johannes gave an extremely informative lecture about his work, with slides

and that of artists who have influenced him and he admires. On another night we surveyed some of David Clegg's recent slides taken of glass installations in Europe and America. I, like many others in the group, came home exhilarated, full of new ideas and with the zest to study basic design concepts and read philosophy in the hope that my own philosophy will develop and help me create unique and innovative art in glass.

Ede Horton.

PROFILES OF GLASS PEOPLE IN NEW ZEALAND:

LIBBY GREY - HOT GLASS;

Glass is a comparatively recent passion in my life. My first visit to Tony Kuepfer's glass studio in Inglewood about four years ago was my first contact with hot glass and my attention was caught immediately. I was fascinated by the fluidity of the glass and the rhythm of the process, bemused by the environment of heat and the roar of the furnaces. Eighteen months ago I began working full time with hot glass, assisting Tony, learning from him, and doing my own work. It was very much a matter of learning on the job as I had no previous training in any craft.

Working hot glass demands physical strength, manual deftness, discipline and imagination, a total combination I find engrossing and challenging. Step by step I am trying to achieve those skills with which I will be able to give my fanciful notions a glassy form. Above all, and despite the many frustrations in these early stages I have great fun working with hot glass.

In 1982 I was awarded a "Q.E. II Arts Council" vocational training allowance which has helped me continue with this work. In June of 1982 I contributed work to the first New Zealand "All Women" glass show at "New Zealand Craftworks" in Te Horo. Several of my early pieces were selected by the Dowse Art Museum for its permanent collection.

Libby Grey

BILL AND LYNDALE BESTIC - WARM GLASS

For 10 years Bill was a primary school teacher for the Education Department of New Zealand. During this time he was selected for special training as a craft teacher in schools. He transferred to The Cook Islands, teaching craft there, for 3 years. While there he met Lyndal, a nurse at the local hospital. They subsequently met again in New Zealand, married, and after Bill resigned from the Education Department, set up house and business on a 12 hectare farm at Gore Bay.



They first made enamel jewellery and panels for a lighting firm. Bill became interested in hot glass and contemplated starting a studio, but with technical information virtually non-existent he decided to concentrate on fusing and slumping sheet glass. He developed moulds for dishes and plates, then his own glass colours. Selling was first done through a wholesaler, but they found this unsatisfactory and changed to marketing their own work. This enabled them to be in better touch with their outlets and the changing demands of the buying public. They have a catalogue of standard lines of work, together with prices, and conduct a selling trip once a year to all their outlets, otherwise orders arrive by phone or mail. Their work is of a high standard. There is an efficient workshop area with good machinery and ovens. Craft work is only part of the life at Gore Bay. Their house and workshop overlook the ocean and a small herd of sheep, a veggie garden and fruit trees complete a part rural, part craftwork life. A converted school house, bought at an auction in the local village, serves as their guest house for visitors. Lyndal completed her first years of school in that same school house. Bill is a bit of an inventor and dabbles in electronics when he has some spare time.

I have been superbly fed by Lyndal, and consumed amply of the local brew, hopefully to exclude the ghosts of past school teachers from disturbing my much needed beauty sleep. It didn't help.

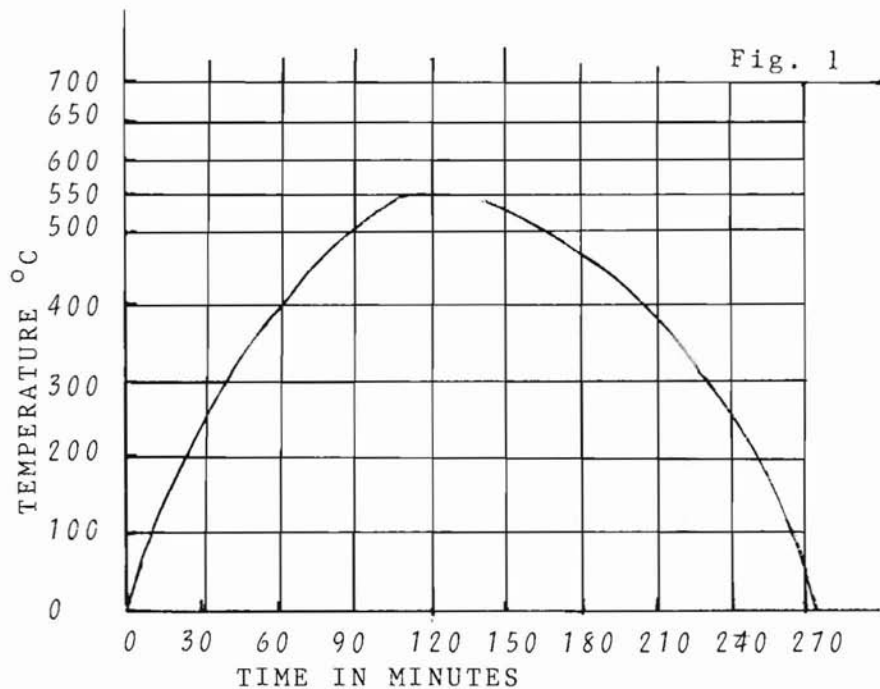
Peter M.

Annealing is the term used to describe removing stress or strain from glass. Stress and strain is tension introduced into glass by the heating, working and then cooling of the material. Glass is known as a super cooled liquid and is considered as such at all times. Heating it reduces its viscosity making it more fluid, cooling it increases its viscosity making it less fluid. There is a critical point in heating glass called " THE TRANSFORMATION STAGE" where glass becomes soft enough for stress to be relieved yet still retain its shape, to the next point, softening, where it starts to loose its shape, and finally to the working point where it is soft enough to flow.

Basically, if glass is above the softening point then any stresses introduced will have no effect while it remains above this point. Again when the glass is below its annealing point any stress introduced will have little effect on the material. In fact, commercial factories actually introduce forced air to reduce the time needed for the glass to cool provided it is below its critical temperature.

Glass is a poor conductor of heat and only more readily accepts heat as it becomes hotter. Conversely in cooling it gives back heat quickly while it is hot, and more slowly the colder it becomes. Time is the most important factor in the annealing process together with the thickness of the piece and whether it is heated from one or both sides. If the piece is heated from one side only, more time must be allowed for the glass to absorb this heat through to the other side. If it is heated from both sides this time can effectively be halved.

Before a piece can be considered correctly annealed, steps must be taken to record what the annealing oven is doing. Tests must be carried out and logged on a simple graph, recording time on one arm of the graph, and temperature on the other. The rise and fall can now be recorded as a curve line (Fig. 1). A thermo-couple and temperature gauge capable of reading to 850°C is needed for the test.



A simple slump test can now be carried out. Using a piece of commercially made glass of around 5mm thickness by 300mm long support it at each end leaving the middle free and unsupported (Fig. 2). Switch on the oven. Record the rate of climb of the temperature against the time taken. Look through a small hole in the door and observe when the glass begins to collapse under its own weight (Fig. 3). Record this temperature on the graph. Switch off the oven and let it cool, recording how quickly it loses its heat. If it loses its heat at a rate faster than 50°C per minute then more insulation that retains heat will have to be included in the oven, or a gradient temperature controller must be used.

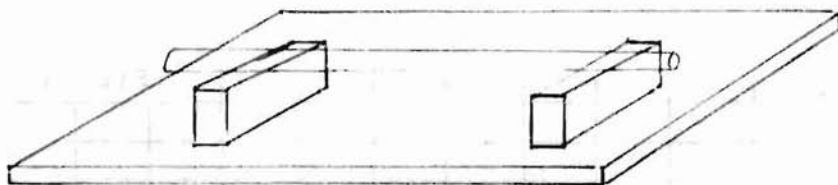


Fig. 2

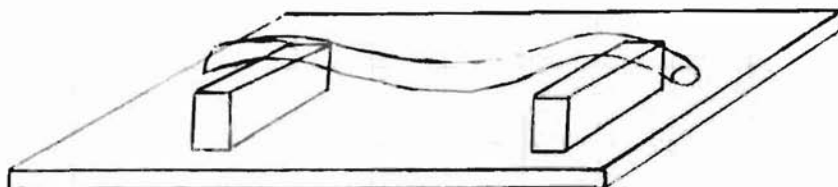


Fig. 3

The actual temperature observed and recorded where deformation occurred is the highest annealing point. Subtract 50°C from this point to achieve a safe annealing temperature. It must be kept in mind that the thicker the piece is, the slower the temperature drop must be. For a 6mm object heated from one side it must be held at the safe temperature for 15 minutes and then cooled at a rate not more than 1°C per minute down to around 440°C . From this point a drop of 10°C per minute down to 300°C is considered safe.

These are only suggested figures and tests must be carried out and recorded for your own needs.

Peter M.

TESTS ON AND USES OF BULLSEYE GLASS

Bullseye glass is a unique and welcome arrival to the Australian glass market because of its richness and variation in colour and transparency and most importantly its compatibility with its own kind. After being assured of its compatibility within the range, I proceeded to put a set of thirty-one samples to further tests at varying temperatures in the kiln. The samples were cut to sizes of 2 x 2cm then laid out in pairs which half over-lapped each other. Every colour corresponded with every other so that all compatibility could be tested. The samples were laid out on shekves covered with ceramic insulation paper then put into the kilns and taken up to 820°C.

The results were as expected with two exceptions, both concerning colour change in two separate but similar colours. The colours in the range concerned were Nos 132 and 133, both samples being a pale grey off-white colour. Their resultant colours after being removed from the kiln were a dark yellow. The other samples retained their original colours but lost any original texture and instead had glossy surfaces.

Another set of samples was laid out as above and these were taken to a higher temperature of 900°C. These results proved even more interesting. A great number of the samples devitrified, resulting in a loss of their glossy surface and in some cases a complete change from their original colour, texture and transparency. The most interesting of these results were colours 404 and 115. The original appearance of these samples were brown and iridescent green, semi opaque, with glossy surfaces. After devitrification, however, they took on a rock-like appearance with patches of chalky and iridescent glass displayed in an agate-type pattern. Other interesting results were found in the sample of orange and white mixed glass (No.123) and the sample of dark pink and white mixed glass (Curious pink).

Their significant changes were that both samples lost their white patches and became solid and dark coloured (dark pink and dark orange).

All samples lost all original shape and texture during their exposure to these high temperatures and all fused completely together. Those samples that didn't devitrify were No. 101 (uncoloured clear) and No. SP311 (brown-pink), both of these being originally transparent.

Uses of glass.

The potential of this glass in slumping and other kiln techniques is significantly greater than many other ranges of glass because of the advantage of compatibility within the range. The colours of the range may not have universal appeal. They are rich, yet after firing can take on a lolly-like appearance. The majority of the colours are pastels and opaques; there are very few pure or primary colours and many are a mixture.

The potential of the glass is limited mainly by the imagination and tastes of the user.

Kathy Davis

Student at Sydney College of Art.



KOKOMO GLASS - FUSION TESTS

Code: 1 = Clear, 2 = Yellow (181), 3 = Turquoise (637),
 4 = Lime Green (691), 5 = Grey (794)
 6 = Opalescent (1LL).

Key: # = Compatible, X = Not Compatible,
 ? = Suggests Incompatibility.

	1	2	3	4	5	6
181 Yellow	#	#	X	#	#	#?
637 Turquoise	#	?	#	?	#	#?
041 Red	X	X	X	X	#?	#?
018 Amber	#	?	X	X	#	#?
794 Grey	#	#	#	#	#	#?
840 Brown	#	#	X	#	#	#?
691 Lime Green	#	#	#	#	#	#?

	1	2	3	4	5	6
216 Acid Yellow	#	#	#	#	#	#?
659 Dark Green	#	?	#	#	#	#?
605 Dark Blue	#	#	?	#	#	#?
1LL Opalescent	#	#	#	#	#	#?
0 Black	X	X	#	#	#	#?
12ML Green Streaky	#	#	#	#	#	#?
B/ORG Orange	X	X	#	X	#	#?

Note: Opalescent needs further testing.

Warren Langley.

PROPERTIES ASSOCIATED WITH INDIVIDUAL OXIDES IN GLASS

Silica (SiO_2)	<ul style="list-style-type: none">-High melting point.-Difficult refining when in excess.-High viscosity.-Devitrification if in excess - deposition of silica.-Silica scum on glass.-High resistance to water and acids.-Low thermal expansion.-Very good transmission of ultra-violet light.-Low density and refractive index.
Boric Oxide (B_2O_3)	<ul style="list-style-type: none">-Makes melting easier.-Reduces viscosity.-Increase rate of setting.-Frequently improves resistance to water and acids up to a limiting value.-Gives hardness.-Good transmission of ultra-violet light.-Low thermal expansion up to certain limit.
Arsenious Oxide	<ul style="list-style-type: none">-Acts as decolouriser alone or in conjunction with manganese or selenium.
Sodium Oxide	<ul style="list-style-type: none">-Assists melting.-Reduces viscosity.-Lengthens rate of setting.-Corrosive of refractory material.-Greatly diminishes durability.-High thermal expansion.-Low compression strength.-Low tensile strength.-Low annealing temperature.

- Potassium Oxide -Similar to Na_2O but rather more beneficial except that potash glasses are more viscous and less easy to melt.
- Lead Oxide -Assists melting.
-Long setting range.
-Low annealing temperature.
-High refractive index.
-High dispersion.
-Fairly resistant to water attack.
-High density.
- Barium Oxide -Assists fusion.
-Diminishes viscosity.
-Shorter working range than lead oxide.
-Moderately low annealing temperature.
-Fairly high refractive index.
-Corrosive of refractory material.
- Calcium Oxide -Fluid glass at high temperature.
-Fairly quick setting.
-Ready devitrification when much lime present.
-Elasticity good.
-Thermal conductivity good.
- Zinc Oxide -Increases difficulty of melting.
-Increases viscosity.
-Increases durability to water and acids.
-Low thermal expansion.
- Magnesium Oxide -Increases difficulty of melting.
-High viscosity
-Long working range.
-Low thermal expansion.
-Increases toughness.

Alumina

- Increases difficulty of melting.
- Very high viscosity.
- Long working range.
- Prevents devitrification.
- Resistant to water and acids.
- Low thermal expansion.
- High mechanical strength.

Blast Furnace Slag

- Slag melts easier than other alumina bearing minerals.
- Seed and blister reduced far below normal.
- Melting temperature reduced considerably.
- Fuel consumption decreased.
- Furnace throughput increased.
- Production rate increased.
- In Sydney and Melbourne alumina added at lower cost than by any other conventional material.

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MY NAME
IS SERGIO
REDEGGALLI.
AUSGLASS INVOLVEMENT
IS JUST A COVER,
I REALLY
FIX THINGS!



NEIL FINN & CASTLEAD

Having served his apprenticeship in Flat Glass and worked with local commercial firms in the 50's, Neil started his own glass supply business in 1962. He imports flat glass from Europe and America to supply the growing demand from glass artists in Australia.

By 1979 his own use of window lead had grown to 1 Tonne per month. Being consistently dissatisfied with the quality of window lead available locally and from overseas, Neil decided to manufacture his own using a lead - copper alloy formula he had developed a few years earlier. After two years of development, he launched the new product under the trade name "Castlead". The addition of a small percentage of copper makes the lead significantly stronger without greatly increasing its hardness or making it more difficult to work. With lower oxidation the lead has a better shelf life and maintains its profile better.

Experience has shown that 1 metre lengths will cover most users needs and a 15 Kilo pack of this length is carried in stock. He carries from 4 to 5 Tonnes of 28 different profiles in stock at all times.

Neil undertakes research on new shapes regularly and adds these to the stock range as needed. Having a close affinity to the glass artist, Neil maintains as much flexibility as possible in his business to help those artists special needs.

Peter M.

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INSIDE COVER

With each issue of the newsletter we intend to print a colour plate of recent Australian work. Selection of work is from slides held by the Crafts Council of Australia and is made by Ausglass executive on the basis of the work showing new approaches by well known people or exciting work from people less established. Quality of slides is important and its ability to be reprinted well is an important factor in selection.

The Resource Centre of The Crafts Council of Australia needs good slides of your current work. The slide library is selected every year from slides received and functions as a study collection for craftspeople and students and is used as the basis for selection for Australian and International Exhibitions, for major commissions, and as an information source by galleries, architects, journalists, government bodies and overseas visitors.

The address is; Crafts Resource Productions,
 Crafts Council of Australia,
 100 George Street, Sydney. N.S.W. 2000.

Work (opposite) by BRIAN HIRST

"Large and Small Planet"

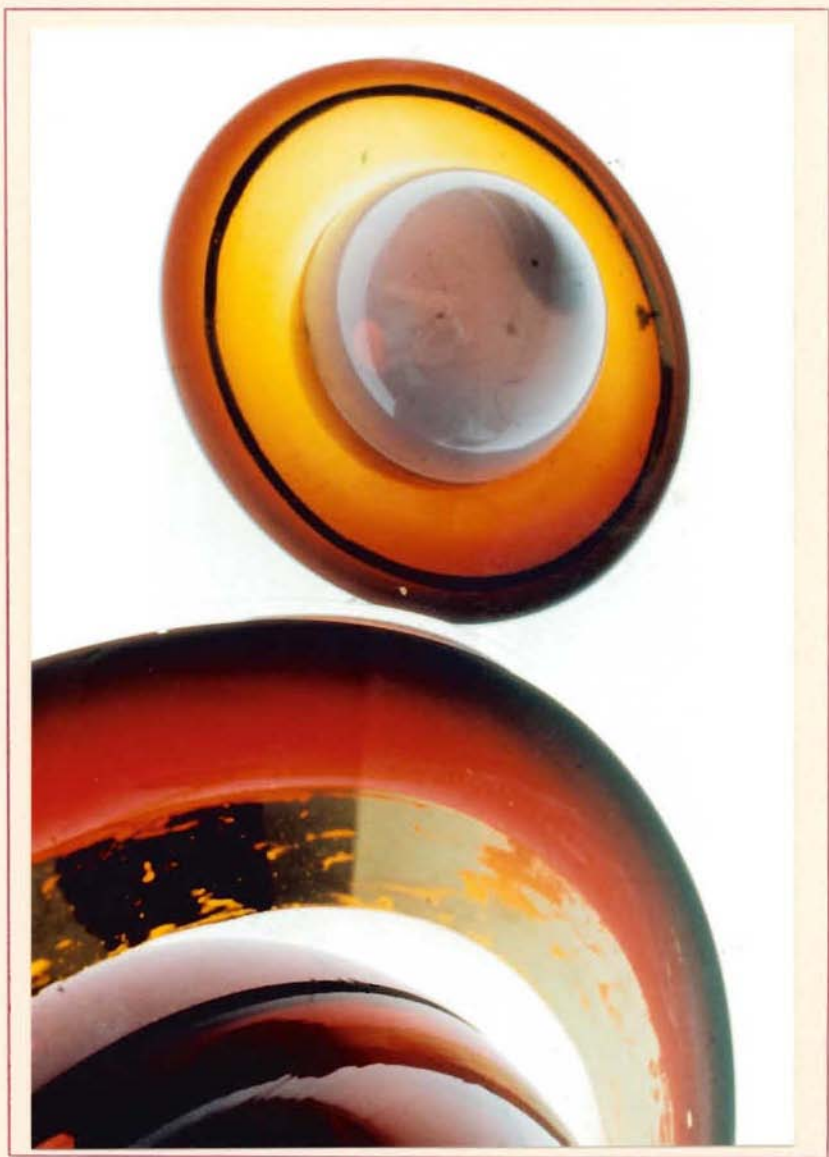
Pieces were made by blowing, grinding, polishing and assembling. Pieces were refired with gold lustre.

BRIAN HIRST Victorian born (1956), graduated with a Diploma in Arts (Visual Arts) from Gippsland in 1979 and is currently building his own glass workshop in Sydney.

Brian's work is in the collections of;

Museum of Applied Arts & Sciences (Sydney)
Wagga Wagga Regional Art Gallery
Kyoto Museum of Modern Art
Guang Dong Province, China
Gippsland Regional Art Gallery.

The most recent documentation of his work is in "New Glass Review 4" published by the Corning Museum, New York (1983).



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CASTLEAD



Manufacturers of high quality window-lead

Castlead window lead is a premium product manufactured here for Australian conditions. An exclusive copperising process imparts smoothness and greater strength without making it harder to work.



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OPALESCENT GLASS

We are the sole Australian representative for Kokomo glass. For almost a century Kokomo have been making superior sheet glass in over one hundred colours. Cathedral glasses, textured or plain, are suitable for firing or a large range of opalescent glasses in carefully controlled densities are made for other uses.