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C O N T E N T S

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INTRODUCTION

The Ausglass '89' Conference, held in Melbourne in January 1989 provided a forum for Australian glass workers to discuss matters of common interest, to exchange ideas and compare techniques. It was a very full programme, especially for those who not only listened to the theory expounded by the many speakers and the discussions that followed, but participated in one of the six practical workshops offered.

I have been asked by Joanne Petitdemange, the Conference Co-ordinator, to document the Conference, or as Nick Mount, President of Ausglass at the time, put it, 'The Story of Ausglass '89'.

It is a difficult assignment. Before the Conference I knew very little of the craft of glass. I had experience of, and had taught, several other crafts, but glass is different. However, it was explained that what I wrote should be of interest to a wider audience and not only a reminder to conferees about what went on or what they missed.

Therefore, I did my research and quickly learned the jargon. I now know that 'hot' refers to blown glass, 'cold' to stained, leaded or flatglass and techniques of laminating or slumping or fusing powdered glass in a kiln are called 'warm' glass. My brief was to record the main conference themes by attending as many discussion sessions as possible and observing the workshops.

As there were 9 workshops and 31 possible individual sessions and only one of me, it was not easy. I was able to get some feedback from those sessions I was unable to personally attend, but even choosing which to go to was a dilemma. I give my apologies to those whose contributions to the Conference I have not mentioned and for any mis-information I may appear to be promoting. In a narrative like this, personal opinions are bound to slip in, and I am also sure that I have been guilty of repetition and making simplistic and over-generalised statements. However, it is as I saw and heard it.

I found Ausglass '89' thoroughly fascinating.

Liz French

Melbourne, February 1989

DEVELOPMENT AND INNOVATION IN TECHNOLOGY AND GLASS DESIGN

Historical Background

Hollow glass vessels dating from around 1500 BC have been found; glass beads were known earlier. In Alexandria in 332 BC glass was heated to a molten state and cast in a mould, or glass rods were wound round a core which was removed after fusing. Sometimes glass was treated like precious stones and shaped by grinding.

During the first century BC, probably in Syria, glass-making was completely transformed by the invention of glass blowing.

In the Middle Ages stained glass windows in churches and cathedrals became a means of communication to a non-literate audience; glowing designs to the glory of God.

Later developments in equipment, processes, design and decoration followed and distinctly regional characteristics appeared, exemplified by Venetian glass and English lead crystal. Glass design and ornamentation became influenced by fashion and art movements. There are many fine Art Nouveau and Art Deco glass collector's pieces.

Until recent times glass was a medium for making functional vases, bowls, platters, lamps and windows. Individual artist's studio workshops are a phenomena of the last twenty five years.

Glass Overview

Although many aspects of technical and design innovation were discussed at Ausglass '89' sessions, it was the practical workshops that highlighted the theme. However, Jenny Zimmer, Dean of the School of Art and Design at Chisholm Institute of Technology, writer and critic of artwork, especially glass, opened the conference discussions with an apposite talk, a glass overview. She stressed that hers was a personal opinion, not a survey, and concerned the paradox that although there are now more artists, facilities, training available, and more critical appraisal of glass works, the standard of work was not necessarily higher or production greater. The art versus craft debate has not diminished and art is still being overvalued whilst craft is undervalued. Good craftsmanship and successful design, she believes, are simple and not

mysterious; they do not need intellectual interpretation. Glass is unique for shaping vessels and ornaments and she thought many of the glass pieces being produced at the present time, could be described as ornamental, that is, as something intrinsically pleasurable without overtones of meaning. They could be purchased, owned and lived with because they provide pleasure to the beholder. She admitted that the difference between functional and ornamental was very slight and illustrated her point with slides of the Wagga Wagga National Glass Survey, and from international exhibitions such as 'World Glass Now' held in Tokyo in 1988, which she believed substantiate this trend. Her view is that glass objects made in Australia at present are largely ornaments; that in art, the medium and technique used are secondary to the idea.

Glass is uniquely appropriate and immensely suited to the functional and ornamental and much more rarely suited to art. She questioned the rejection of this value as functional and ornamental as an aberration which denies those qualities, and thought we should praise the life-enhancing qualities of good design and craftsmanship and the pleasure inducement of the ornamental. She would like to see this unique quality of glass exploited.

Hot Glass

Jenny Zimmer dealt with the content of glass art. Garry Nash, the New Zealander who conducted the hot glass workshop, was more practical in teaching 12 students of mixed experience the skills and refinements of glass blowing and decoration by demonstration and example. Nash argues that there has been little innovation in this area other than in furnace technology and chemistry. Experiments with glass formula and the introduction of new colours such as cadmium, he believes, are the only difference apparent since Roman times; the tools used are similar as are the techniques. Every glass blower should be able to blow a Roman goblet and be able to replicate other historical pieces according to him, and it is through going back to some of these ancient processes and experimenting with them that new techniques may develop.

His own recent work shows this. With subtle simplicity he uses sandblasting, etching and diamond cutting to record past events in his life on a glass plaque



which is then placed on an obelisk form and blown.

Steven Skillitzi tutored a half-day workshop in Technical Glass Innovation which was purely theoretical, but he has had plenty of practical experience on which to expound. As an artist he has experimented widely in combining glass with other materials and was responsible for setting up the first studio glass furnace in Sydney in 1972, the first of many he has built in Australia. His practical skills are diverse. He pioneered furnace casting of glass using resin, sand and styrofoam and later engineered old grinding and polishing wheels for the large-scale cold working of sheet and block glass. Skillitzi also developed a larger-sized kiln for slumping and casting glass.

In this workshop Skillitzi showed test piece samples resulting from his experimentation with materials and technology. He sees future innovation concerned with fusions of glass with mixed media on a large scale and experimentation with industrial methods that are still under utilised in studio glass, like toughening and the use of water jet cutting. There are possibilities of compounding glass with a colloidal gel rather than the traditional method of melting at high temperature. Highly sophisticated fibre optics and ceramic fibres, fibre papers and boards, spin offs from space shuttle development already have wide usage in glass procedures and may still have other useful applications. Computers are already in use for furnace and kiln temperature control, for design project applications, and for access to data banks. It is inevitable that other uses for them will become apparent.

Lampworking

The traditional use of lampworking has mainly been in making glass for scientific and chemical experiment use.

Ginny Ruffner, renowned in the U.S.A. for her glass sculpture, shared her enthusiasm and expertise in the techniques and processes of lampworking during workshop sessions. Her own works are fun pieces, reflecting close

attention to changes in her inner and outer worlds. They are built up of lampworked elements which are sandblasted and later coloured with pastels, acrylics and water colours and then protected by a normal fixative spray. A unique combination of glass skill and her earlier training as a painter. The workshop combined theory and practice, covering tools and equipment, the chemistry and physics of borosilicate glass used in lampworking, annealing, sandblasting, colorants, studio setup, packaging and dealing with galleries. A very comprehensive coverage sure to create rapid increase in lampworked glass 'ornaments'.

Architectural Glass

Joel Russ in the Winter 1987 edition of 'Stained Glass Quarterly' describes Canadian, Lutz Haufschild, as being like a composer who delights in orchestrating for a particular instrument. He produces symphonies in glass. Lutz, himself, stresses that stained glass has no limitations from a material or artistic point of view, rather than the limitations can only be the artist's imagination or knowledge. If his design for a large-scale architectural commission requires it, he will have the basic materials for the work specially made.

The architectural glass workshop which Lutz Haufschild presented was design-based and as it was held in the Architecture Building of Melbourne University, was theoretically concerned with investigating the design requirements of a specific skylight window area within the building. Considerations such as location of a window within a building, its purpose and materials used in construction and the effects on the design and artistic treatment were discussed. His approach with areas of collage without other preparation, creates spontaneously exciting ideas which could later be adapted to the specific site.

Creative Fusing

Meza Rijdsdijk presented a Creative Fusing Workshop which was primarily experimental. Meza, herself a great innovator, suggested possible projects and techniques as starting points. As a result, at the end of the week that it ran, students had varying degrees of success; some were exciting results, by chance, which is what experimentation is all about. The large number of people using a limited number of kilns, and the time factors involved had

effects on the outcome, but it is through this kind of limitation, combined with experimentation that personal innovation and style is often evolved. Many of the individual students' experiments involved the use of newer heatproof materials, used as supports or moulds.

Surface Techniques

Decoration of glass surfaces, although applied in this workshop mainly to flat glass, is applicable to all glass forms. The workshop convenors, Deb Cocks and Gaylene Allan, demonstrated painting, acid etching, sandblasting and the use of enamels and lustres. Safety precautions in the use of materials were emphasised. Paints may be lead-based and highly toxic. Masks are essential workshop equipment when finely powdered materials such as silica are employed, to help prevent lung damage. Protective clothing and similar precautions should be taken with the acids used in etching. New innovations in surface techniques are mainly concerned with materials used as resists for etching and sandblasting, many of which had been developed for other uses, such as ducting tape and Venture tape, as well as the not so new Aquadhere and other PVA-based adhesives. New materials such as 'Buttercut' and other latex-based substances are available overseas and should be in Australia before long.

Engraving

Although it has a very long history of use as an ornamental surface decorating technique, engraving has been little utilised in the modern studio glass idiom, yet it has great potential. The objective of Anne Dybka in her engraving workshop was to teach a process which could be applied to any glass surface, a technique demanding patience and skill on which it seems modern technology could have little impact, though experiments with lasers have been instigated. It is a technique which appeals to artists and designers who are skilled in drawing, who are interested in depicting realism and nature.

In all the workshops held there was evidence of innovation, but innovation is an ongoing process and experimentation with materials and techniques must continue. Glass artists must keep in contact with new technological developments and experiment with their application to glass.

WOMEN IN GLASS

Although the topic of women in glass was one of the main themes of Ausglass '89' Conference, only two sessions running concurrently, were actually devoted to the question.

Approximately 50 per cent of those registered for the conference were female, but only 14 of the 37 speakers during the week. However, 6 women against 4 men tutored workshops. There are works by 11 women in the Victorian State Craft Collection's 37 glass acquisitions and in the Australian Glass '89' National Glass Exhibition, 8 out of a total of 14 exhibitors were women.

Those women who did speak on the topic; Jan Blum, Maureen Williams, Ginny Ruffner, Anne Dybka and Pauline Delaney, work in different glass techniques and idioms, but had basically the same views and experiences to express.

It was apparent that many of the problems associated with being a woman working with glass were problems faced by all women in a male-oriented society, or as a female artist or craftswoman generally. Choice between career and family, inherited and intuitive attitudes of thinking and acting; the traditional roles as wife, housekeeper and mother are all female only dilemmas. The majority of men never have to make a choice, their career comes first.

Ginny Ruffner had previously researched the question of women glass sculptors for an article in 'American Craft' and had obtained the opinions of artists, educators, critics and gallery owners and other interested bystanders. There was a consensus on certain issues, but individual views on specific points varied widely. Problems underlined in her research showed that older men educators tended to see limitations and gender stereotyping more frequently and mentioned that in August 1988 there were only 5 women teaching glass courses at University level in the U.S.A.: controlling bodies of Art Schools and Departments are usually male dominated. Women are less likely to take financial risks than men and cannot find daily paid manual labouring jobs to finance the setting up of their own studio workshops, or sleep in the back of a truck, or on a park bench, to save money. It is not safe to do so because of their gender and the expectations of the society in which we live.

In the U.S. glass blowing is still seen as a very 'macho' occupation. Much of the equipment, particularly furnaces in hot glass workshops is designed and built by



men for men; the height of glory holes in a furnace are typical of this attitude. Women are therefore often at a disadvantage for physical reasons. There is also the assumption that women do not have the technical knowledge or expertise about materials, techniques and equipment. They are equally capable of learning, given the opportunity. Many girls until recently have lacked a sound scientific education.

Ginny thought that there appears to be more opportunities for women in glass in Australia than elsewhere and that this could provide role models for the next generation of women glass artists.

In Australia there are probably more women involved in hot glass production than in America. Pauline Delaney is in charge of the recently built Hot Glass Access Workshop at the Meat Market Craft Centre and so far has found no specific problems. Setsuko Ogishi in N.S.W. and Leisa Wharington in Victoria have both built hot glass workshops for their own use. Leisa worked part-time in unrelated occupations to finance the project. As far as is known these two are the only women in the country to have done so.

Women glass workers have tended to opt for areas other than glass blowing. Lampworking, slumping and fusing techniques and flat, or stained glass, whilst perhaps not as physically demanding, still require specialist equipment and skills.

Women seeking a professional career in glass still have the same other problems as men; the same criteria must apply to their work. Commitment, integrity, persistence, dedication and creativity are not gender specific. The issue is quality, not gender.

GLASS AS A PROFESSIONAL CAREER

What is a professional?

The whole concept of glass as a professional career is bound up with the question of what constitutes a professional person in any field of activity. Many of the speakers addressing this theme had different definitions. Ede Horton, a stained glass practitioner believes it means, among other considerations, following a code of ethics when dealing with clients and committees, with reliability being of particular importance. Bronwyn Hughes, has the view that professionalism involves integrity, honesty, discipline and commitment; and as an educator looks for these qualities in choosing students to enter courses, difficult though they may be to assess.

At Ausglass '89' the inevitable discussion on professional versus amateur craftspeople arose. Hobby glass workers can compete on unequal terms with those who depend on their craft for a livelihood. The general public as consumers of glass objects do not differentiate unless they are particularly discerning in matters of aesthetics, technical skills and craftsmanship. It is true of the whole field of art and craft practice and is a problem which needs resolving. It can be assumed that the majority of those attending the conference were, or aspired to be, professional glass workers, insofar as they hoped to make a living from the practice of their craft.

If the aim of a professional glass craftworker is to be able to live on the proceeds of their work then matters of education and training, promotion and marketing, support from agencies providing grants and sponsorship, outlets for work and the possibility of commissions, and work on community projects has to be considered. All these topics were considered during the conference.

Education and Training

Until recent years artists and craftpeople came to glass by a circuitous route. Often it involves fine art or design courses or kindred crafts such as ceramics. They had not known of the possibilities of glass as a medium because it was not available at their particular place or time. It is probably one of the glass artists strengths that they have this broader background. Others, such as Richard Clements, came to studio glass production through apprenticeship to scientific glass makers.



The three visiting international workshop tutors provided a good illustration: Ginny Ruffner has an M.F.A. in painting and drawing from the University of Georgia. Later, becoming interested in glass, she learnt lamp-working skills in a factory where the production included making glass presentation pieces. During this period she was able to experiment with her own work and save enough to set up and equip her own studio workshop. Lutz Haufschild studied Art at the Institute of Art and Technology in Hanover, West Germany, where Bauhaus principles were still dominant. Garry Nash considers himself self trained. He gained technical skills from learning and practising glass blowing in a friend's scientific research workshop in exchange for making equipment for him. Later, he studied with some of the most respected glass blowers in the world in America, the U.K. and Japan.

It is obvious that education for the professional is an ongoing process. Attendance at the Ausglass Workshops proved that there are always more skills to be learned, experiments to be tried and new technology to be explored. Many successful glass artists have studied elsewhere, notably at the Pilchuck School in the United States and at workshops and courses in the U.K. and Japan, wherever the expertise is known to exist or can be sought out. Travel to discover what is happening in glass design is in itself part of education. In the last decade, more tertiary institutions in Australia have developed glass programmes providing students with experience in the many different aspects and techniques of glass design and production, together with knowledge of the chemistry and physics needed to become a professional glass artist. However, it was apparent from discussion at some of the conference sessions that training in marketing and business management is vitally necessary if a student is to survive once the umbilical cord to their educational institution is cut. They no longer have access to furnaces, kilns, diamond saws, sandblasting equipment or even space in which to work and get established.

Many of the Ausglass conferees had learned survival skills the hard way and were able to share their experiences to benefit those still struggling.

Survival

Making an income from glass depends upon producing a body of work that can sell through galleries and other outlets; by getting commissions to produce

work for a specific site or purpose; by teaching through Artist in Residence or Artist in the Community schemes; by promotion of the craftsperson and their work to acquire stature in the chosen technical and artistic fields.

Marketing and Promotion

Outlets for production depend upon whether glass artists make functional or 'ornamental' pieces or design large or small architectural or sculptural pieces. The market is different for the glass 'artist' than for the craftsperson with a production run.

Warren Langley spoke generally on marketing and galleries. Among the points he made were that works can be categorised as exhibition pieces, design or production works or commissions. In his own case design or craft items, such as platters and vases, are normally made to utilise studio equipment when exhibition pieces or commissions are not in progress. Exhibition work differs from 'bread and butter' production as it usually employs stylistic or thematic motifs characteristic of his own particular work. With regard to commissions he believes there are no shortcuts; years of knocking on architects' doors is the apprenticeship to eventual success. Once this is achieved others follow.

David Turner said that glass artists are in the luxury item game and that therefore it is necessary to work harder to attract sales and commissions than if producing a needed consumer product.

Pamela Brand is a professional marketing consultant, who is working for the Crafts Council of Victoria. She ran a one-day marketing workshop during the conference and was able to deal with some of the general topics in more specific detail, as well as reiterating what had already been advised by the speakers. What the marketplace is and how it functions are vital knowledge for the craftsperson, as well as the realisation that government legislation exists relating to trade practices between the consumer and vendor, advertising, and the setting up of companies. The business of keeping books and records is not only essential for tax purposes but makes it easier to assess cost production. The necessity of keeping in touch with current happenings in the marketplace was important; styles, fashion, the demand for certain items, change; so does government legislation.

Private Galleries

Betty Beaver from the Beaver Galleries, Canberra, stressed the importance to the craftsperson of choosing a gallery to exhibit his or her work which was sympathetic to the craftsperson's ideas and processes, before approaching the gallery about an exhibition. If accepted, the gallery director endeavours to promote the artist and report back on reaction and comment about the work. This allows the artist to gauge design and production for future shows to their mutual advantage. In return the artist is expected to maintain contact with the gallery, keeping them informed of any change of style or direction in their work so that they could be included in appropriate thematic or stylistic group exhibitions. Slide representation and curriculum vitae should be updated at least every twelve months: unless the gallery knows how an artist is diverging it is not possible to be included in their 'thinking channel' or future plans. Betty Beaver sees reliability and communication as the major factors in a professional relationship between artist and gallery owner.

Public and Institutional Galleries

Many public and institutional galleries and museums have contemporary art glass collections. To be included in such prestigious collections gives practitioners recognition and status. Works are usually acquired from private galleries or from national exhibitions like those curated by Clinton Greenwood, Exhibitions Officer at the Meat Market Craft Centre in North Melbourne. He complemented the views of Betty Beaver as a commercial gallery owner, with specific reminders of the responsibilities involved by both exhibitor and curator in taking part in selected or invitation only shows. Craftspeople should be provided with a brief regarding the nature of the exhibition and a contract of conditions of participation. In return, the gallery expects the craftsperson to honour the commitment to exhibit and to submit recent work which is of a high standard and appropriate for the specific exhibition, and is ready for installation. Wall panels should have hanging points; free-standing pieces should be robust and stable. Work must be delivered on time and have suitable protective packing, matters which often require forward planning. Exhibition deadlines are fixed, therefore setting-up time is limited and any delays may compromise presentation. The curator's responsibilities include advance publicity and promotion, prompt finalisation of any sales and the return of works without delay.

Commissions

A commission to produce a site specific piece has more problems than making work for an exhibition or sale through galleries and other outlets. Clients may be government consultants, architects, project managers, or committees representing special interest groups. Ede Horton, with several successful stained glass commissions to her credit, spoke of her approach to such jobs; of the need to explain to clients the stages of design, fabrication and installation; and for a contract stipulating when payments are required. She emphasised that it is imperative that clients also have some input so that they feel involved.

In the first stages of a commissioned work it is necessary that the clients, who may not have initiated the project, get to know the work of the artist through good slides of previous work and a selected resume or c.v. well presented and easily read. First interviews are important and the clients must be able to relate to the artist even to the consideration of dressing suitably. In many cases they are not used to dealing with artists and do not understand the problems involved. These should be explained by discussion of technical aspects, the relationship of the design to architecture and building use. It is important to meet deadlines and follow up any technical questions.

In all dealings with the clients, the artist must appear confident, enthusiastic, dedicated to the project and sensitive to their needs. The same is true in dealing with sub-contractors who may be employed to fabricate and install the completed design with communication being through only one person for preference. Diplomacy and communication are paramount at all stages of a commission.

The old maxim of success breeds success is very true with commissioned work. Once an artist is well known as someone who produces quality work, has integrity and a businesslike approach, as David Turner said on the same topic, can market themselves and their work as such, further commissions may follow.

Support Systems

In addition to Ausglass there are other art and craft associations which can provide assistance with information on exhibition and marketing opportunities and provide representation in relevant bodies.

Craft Councils

Each State and Territory in Australia has a Crafts Council affiliated to the Crafts Council of Australia which acts as an umbrella body and represents craftspeople in federal matters concerning all crafts.

Kay Morrissey, Executive Officer of the Crafts Council of Victoria spoke on the role of crafts councils and the benefits of membership.

Each Craft Council keeps an unselected slide library and biographical registers of craftspeople in all media. Any craftworker can submit to these, which can be instrumental in gaining commissions or making contact with galleries. The Craft Council of Australia maintains a similar, but selected, slide library with the same purpose. Resource centres provide information on new developments in all crafts through Australian and overseas books, periodicals and craft association newsletters. A monthly Newsletter gives a calendar of events, reviews of exhibitions and lists craft outlets and workshops. A special service for Victorian glass artists is the compilation of a register of glass installations within the State, in consultation with Ausglass. The Crafts Council of Victoria also employs a marketing consultant, Pamela Brand, who ran a workshop during Ausglass '89', to advise both craftspeople and gallery owners and provide a link between them. Names of suppliers of materials and equipment can also be found through all craft councils.

Business Advice

Most State Governments have departments or bureaux which provide advice on small business development, which would be applicable to setting up a glass studio/workshop, particularly in areas of taxation, government regulations in building, and safety, and other related matters.

Short courses organised by the Council of Adult Education and TAFE cover similar programmes for those who have no basic training, or acquired expertise in business management.

Grants

Although getting very much harder to obtain than in previous times, the Australia Council through the Visual Arts/Crafts Board and the Community Arts Board does provide grants for some purposes, though no longer for

workshop establishment. Availability and criteria are subject to Federal Government budget allocations. Artist in Residence and Artist in the Community projects are usually funded through the Council. Grants are sometimes available from State Government Arts Ministries or Departments with variable priorities and criteria, but are worth investigating.

Setting Up a Studio/Workshop

Many glass artists attending Ausglass '89' have their own workshops and studios. Some share facilities and costs. The provision of Access Workshops, such as those in the Meat Market Craft Centre in Melbourne make it possible for a glass worker to start building up work until they are able to afford a studio of their own.

Furnaces and kilns are not only costly, but fuel costs to operate them and other overheads mean that production and income have to be sufficient to meet these expenses. The Hot Glass Access Workshop at the Meat Market Craft Centre cost at least \$40,000 to set up and \$600 to \$1 000 a month in fuel to run. Setsuko Ogishi who has built her own hot glass workshop in N.S.W. needs to earn \$4000 a month to cover costs.

Warm and cold glass workshops also have their specific needs in equipment and have comparable costs.

Ginny Ruffner, as has already been said, worked in a factory making glass trophies and presentation pieces before being able to start her own workshop. Ginny stressed the point that if you want to make a successful career as a professional glass worker it is essential to have goals and be able to decide what is your aim in life; whether it is money, fame or security, all of which demand some sacrifice. Whatever the decision, professionalism and a belief in your own work, together with persistence in approach to galleries and commissions are the key factors on the road to success.

As was evident at Ausglass '89', it is possible to make a career as a professional glass artist or craftsman, but creativity and skill are not enough.

Steven Skillitzi presented a thirty-one point list of topics to be considered in professional practice. These included organisational skills, marketing and business management, diplomacy in dealing with galleries and clients and support networks of contacts of consultants and suppliers.

GLASS IN PUBLIC SPACES

Modern architectural design and building techniques, with a predominant use of glass have created many opportunities for glass artists to produce site specific works in shopping centres, banks, hotels, schools, sporting complexes and government offices as well as the traditional venues of churches and other places of worship. Trade Fairs and other celebratory events such as the Bicentennial Expo '88 in Brisbane also provide sites for the presentation of sponsored works, although in these circumstances are sometimes only of a temporary nature.

Usually on a smaller scale, artists working through Artists in Residence, or Artists in the Community schemes, can involve the participation of local communities in the production of art in public spaces.

Lutz Haufschild not only presented an architectural glass design workshop, but gave a slide presentation of a selection of some of his public site specific commissions in Canada and the United States, and spoke of his working methods. A project starts with an interchange of ideas with architects, structural engineers, clients and project consultants. He believes that good public art has something to do with clarity of conception, with cultural significance and with the care and attention put into it. Whilst the scale on which he works demands devotion to the total conception of a work, attention to detail and the choice of glass and technique within the overall scheme is also paramount. Some of the glass he uses in installations is custom made, some painted by other artists. He uses cast glass and painted or fused glass according to the specific needs of a window or panel. Some of his installations could be described as glass walls, others are three dimensional suspended sculptures intrinsically bound up with a light source, changing or static.





Haufschild is the creator and designer. Fabrication of his design is undertaken by specialists, often far removed from the site, and later installed by another team. This often involves him in considerable travel and consultation time so that installation of one project is concurrent with consultation and design of another elsewhere.

His latest project, and one of his most challenging, is a cast glass relief wall designed to frame the east entrance of the Toronto Skydome Stadium, an arena for baseball. Cast glass has been chosen so that the glass can be seen from both inside and outside the stadium. It is an interesting break from some of his earlier work in that it is monochrome and figurative, based on a theme of great baseball players of the past such as Babe Ruth and Joe Di Maggio.

Glass Sculpture

A complete contrast to Lutz Haufschild's architecturally associated work is that of Sergio Redegalli, a Sydney architectural glass designer and sculptor. He was commissioned, through the artistic adviser, to create a large glass sculpture for

a site at Expo '88 in Brisbane and was sponsored by ACI Pilkington.

A wooden model has been made and would provide the pattern from which the sheets of glass were to be cut. Arrangements had been made with the Brisbane glass firm of Oliver Davey and a fulltime cutter was made available to cut the 6mm sheets of glass. Consultation with architects and engineers on site were necessary and problems concerning wind factors and union involvement had to be solved. Transport had to be arranged and permission obtained for getting the trucks onto site. A base had been built to carry a weight of 15 tonnes. Glass was cut in the morning, proving less of a problem than had been anticipated, and once sufficient pieces, about 20, were ready, they were taken to the Expo site for assembly. The sheets were glued with silicone which, although experimental proved highly successful, so that cradling during assembly was not necessary. Each piece of the 500 needed to complete the work was numbered and every sheet had to be kept in order. Redegalli now reckons he could have made the sculpture almost twice as big for the same price, as so much glass had to be wasted. Edges of the glass were nibbled and rough cut to give more reflectivity.

The budget for his project was \$100,000 and took 3 months to complete from making the wooden model to cutting and assembling the glass.

After Expo closed the complete sculpture was transported to Adelaide by road, where it will be permanently displayed on a site in the Botanic Gardens in front of the new Conservatorium.

Community Projects

Each community project is different in expectations and involvement of the local inhabitants, budgets and how the artist gets brought into the process.

Flat glass seems the predominant material for community glass projects. All four speakers who spoke on this aspect of art in public spaces worked in this technique.

Julie Brand had given stained glass hobby workshops in Hopetoun, a small Victorian country town. Because she was known, she was offered a two-week Artist-in-Residency to design new windows for the Shire offices. Funding came from many sources, including the local council. The design for the 3 x 2 metre window, which Julie Brand did herself, had to suit the local community.

As abstraction was not appropriate, she chose motifs which reflected the countryside with wheat, birds and mallee trees. Once approved by various committees the window was fabricated by Julie, with students from her previous lead lighting workshops helping with the puttying up and burnishing. Graham Stone's first experience with community projects came after he had given a lead lighting workshop during Arts week at Geelong Grammar School and was invited back to do a commission. He did the design himself, but suggested that the students be involved with the fabrication. The volunteers aged between 11 and 15 helped in cutting lead and grinding edges of pieces of slumped glass and were highly enthusiastic.

A vastly different project by Stone, was at Nunawading Arts Centre, where a friend had been asked to 'coach' a group with some leadlighting knowledge but who needed more expertise to undertake large-scale work for the Centre. Funding for the 17-panel window was split between Nunawading Council and the Bicentennial Authority. All those taking part had input into the design process, though some were reluctant to do so. It was to be based on the history of the local area right back to prehistoric times and because of the need for compromise and discussion it became a very time-consuming process. A basic sketch was submitted to Council as a matter of courtesy. Once approved it was fabricated by the group using fusing, slumping and sandblasting techniques, with some painting of the glass in a very small room in the Nunawading Arts Centre. A bigger public area was available to lay out the design and this itself created more community involvement, with members of the public passing through and passing comment.

The whole project took 18 months working one day a week, and needed a great deal of patience, but Graham considered it a very worthwhile experience.

Gaylene Allan was Artist-in-Resident for 3 months in the Victorian coastal town of Portland, funded by the Victorian Arts Council, Portland Council and Portland Adult Education. It proved to be an exceedingly busy time for her. As well as teaching lead lighting for the local Council of Adult Education, and local school children during the week, she organised workshops in outlying areas on some weekends, and was involved in a Community Art project for two windows for the Portland Arts Centre.

The two windows, 1 m x 2m each, were designed by Gaylene after the circulation of a questionnaire to local groups to elicit their ideas on suitable motifs. These proved to be those based on the arts and crafts, but children's drawings and poems were also incorporated. She had total freedom and did not have to obtain approval for her design.

Fifty enthusiastic volunteers worked on cutting the glass and the construction of the windows, but Gaylene painted the glass herself as she had not had time to teach the technique.

However, she was invited back to Portland for another month and taught 50 people glass painting techniques and they were then able to complete a second project for the Portland Council Chambers where three windows were designed and painted with their impressions of Portland.

A major result of Gaylene's residencies was that one of her original students is now teaching leadlighting and producing her own work. A Lead Lighting Guild has also been formed in the area.

Another Artist-in-Residence project was that of Deb Lutz in Keith, South Australia, funded by the Arts Council.

Two local residents wished to replace the windows in an old church after the originals had been removed and installed in a new church building. A workshop was to be held in the old church to make leadlight windows to replace the old ones. They originally wanted to make copies and were reluctant to design new windows because they considered they had no design skills. They were encouraged to draw still life groups and were eventually able to come up with suitable designs for the 4 windows 600mm x 2 metres each.

About 30 people were involved and Deb spent two days a week for 15 weeks on the project, which she believes was responsible for breaking down many barriers in the community. A common goal made people with different backgrounds come together and work together.

It is arguable whether some of the conceptual performance pieces of Steven Skillitzi can be considered as art for public spaces. His 'Celebration of Light and Life' devised for the Adelaide Festival of Arts in 1984 was part of his thematic Life/Career cycles and incorporated many glass components, as have many of his environmental installations over recent years. They may perhaps be thought more temporal and intellectual than architectural related glass, but can, and do, have an impact on those who view them.

The future of glass in public spaces promises to be exciting. Architects and government departments are aware of the benefits of displaying well designed art in public buildings, which complement and enhance their projects. Co-operation between designers and project consultants is vital: continuing support for smaller community works essential. Corporate sponsorship for site specific works is desperately needed. In some overseas countries special levies are included in all public building contracts to cater for the inclusion of artwork in the project. The new Parliament House in Canberra has set a good example, but the peculiar and unique qualities of glass are still too rarely seen in public spaces in Australia.

GLASS FROM CRAFT TO INDUSTRY



GLASS FROM CRAFT TO INDUSTRY

Discussion of the transition of glassmaking from a craft based activity to a factory made industrial product brings up the problem of definition again. Edward Lucie-Smith, in 'The Story of Craft', defines craft as handwork used for making objects, the OED as a 'calling requiring special skills and knowledge;

especially a manual art, a handicraft'. Industry on the other hand is either 'systematic work, especially for the creation of value, or usually, a specified group of productive or profit-making enterprises'.

Are the two compatible? Perhaps this is why practicality versus compromise became an important topic within the main theme.

Until the mid-1960s, 'artistic' glass was made almost exclusively in studio departments attached to major glass works.

In the late 19th and 20th centuries, Emille Gallé and Renee Lalique in France and Louis Comport Tiffany in the U.S. were innovative glass designers. Much of their work was produced under their control by teams of expert glass workers. Gallé, it has been said, paid the price of such mass production by losing artistic quality, though he was financially successful. This could prove a major problem in any movement from individual studio-based craft to factory style production.

Nick Mount has identified a need for production facility in Australia that could make glass for specific applications and would eliminate the need to import such functional pieces. His talk was the most directly related to the theme. Recognised nationally as the maker of creative blown glass works with a highly personal style, he already had experience of running a large glass workshop, 'Budgereee Glass'. Nick sold this workshop, though retaining the name, and was able to find suitable premises in Port Adelaide, South Australia and buy secondhand glass making machinery and equipment from the sale of a glassworks in New Zealand. He has formed a company, with shareholders, and is himself the Managing Director and Designer. Mount's objective for the company is to develop products, processes and techniques to provide commodities required by other commercial enterprises: light fittings, speciality bottles, tableware, giftware, and glass components for other manufacturing industries, which would otherwise have to be imported. He is prepared to work out design and manufacturing problems for whatever the market needs. The initial establishment of the factory was not without its problems. The machinery was old, big and difficult to deal with. Problems with furnaces and kilns which had been easily and relatively cheaply rectified when setting up his first small hot glass workshop, were not so easily dealt with. Now that he melts a tonne of glass and pulls 750 kilos a day, to change over a furnace is much harder because of time and cost factors involved.

The only innovative process that he has been able to build into the old equipment has been with electrodes inserted into the glass in the bottom of the furnace, which considerably improves efficiency and reduces fuel costs.

Another difficulty which has arisen is the unavailability in Australia of high quality cast iron for hot glass moulds, so 'Budgeree Glass' are trying to develop this or find other materials or processes for the same purpose. Tooling and machinery development costs are therefore high.

The factory, which at present is capable of producing 500 items daily, employs 15 workers. The glass blowers, who work in teams, have come from associated industries, where their skills became very specialised — one only blew bowls for brandy goblets — and it has been necessary to retrain them to be more divergent. Maintenance, office and packaging staff are also employed. As designer, Nick Mount has no time for his own work, although he has his own studio/workshop within the factory. He admits he sometimes has to compromise his artistic standards to satisfy a customer or when designing products to suit contemporary fashion trends.

Practicality versus compromise, one of the topics within the Glass Craft to Industry Theme of the Ausglass '89' Conference, is a decision for each individual craftsperson and is a matter of preference.

Graham Stone, who works in flat glass presented a personal view. He seeks glassworkers as a group who constitute an industry, and believes larger, more commercially oriented businesses with greater specialisation and more reliance on sub-contractors are becoming evident. The choice of the right specialist help he saw as vital, as the more workers involved increased the risk of things going wrong and creating scheduling hitches. Those involved in production runs could also benefit by employing the specialist assistance of others, which could improve volume and efficiency of production, and he advocated investment in plant and equipment if more industrialised output is to occur.

Another compromise is that quite often imposed by shortcomings in skill, or the limitations of the glass media itself. Ginny Ruffner, in another context, had said; 'decide what you can make, with what you can do'. This approach, although it may be frustrating, could prevent over diversification and lead to greater efficiency.

Graham Stone emphasised the need of learning by mistakes, using them to open up new possibilities, and considering them as part of research and development time which all craftspeople need if work is to develop and grow. Brian Hirst, speaking on directions for glass in the 90s, found the topic exceedingly broad and complex, with so many facets of production dependent on other factors. He considered that product and artist were bonded and that therefore what was on sale was a name. Another recurring problem he saw was that of diversification versus specialisation, both having their place in a glass industry, but leading to different outcomes.

In an industrialised context he could see both a return to some older techniques, such as engraving, that had originally come from industry, but was now little used, other than in studio work, as well as the introduction of computerised design technology and the use of lasers for glass cutting. Selling products through specialised agents would, he thought provide glass workers with more commercial possibilities.

Successful architectural glass designer, David Wright, stressed the usefulness of employment of an agent, as he does. The agent interviews clients and presents slides of examples of previous work and negotiates a design fee before the designer himself meets the client. The agent is paid a percentage commission and gets this even on jobs obtained through other contacts. Knowledgeable in both architectural and glass processes he acts as a communicator and is paid a retaining fee to oversee a commission through to completion, negotiating the contracts and dealing with any disputes that may arise. It has proved a great saving of time and stress.

Although commission work is mainly the realm of flat glass artists at present, in a more industrial production run situation, the employment of an agent or marketing consultant could have similar benefits in opening up new opportunities for selling work, both local and overseas. They would, in fact, be personal sales representatives.

Although the compromise versus practicality debate will continue, whatever the future of glass; whether it is produced in studio workshops or factories, the criteria of what constitutes 'good' glass and good glass designers, will depend on the qualities mentioned by speakers throughout the Ausglass '89' Conference, namely, those having a professional attitude, working with efficiency, reliability and integrity to produce creative and innovative work.