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NATIONAL COLLEGE OF ART & DESIGN

Glass Faculty / Craft Department

THE SILENT REVOLUTION

by

Grainne Flynn

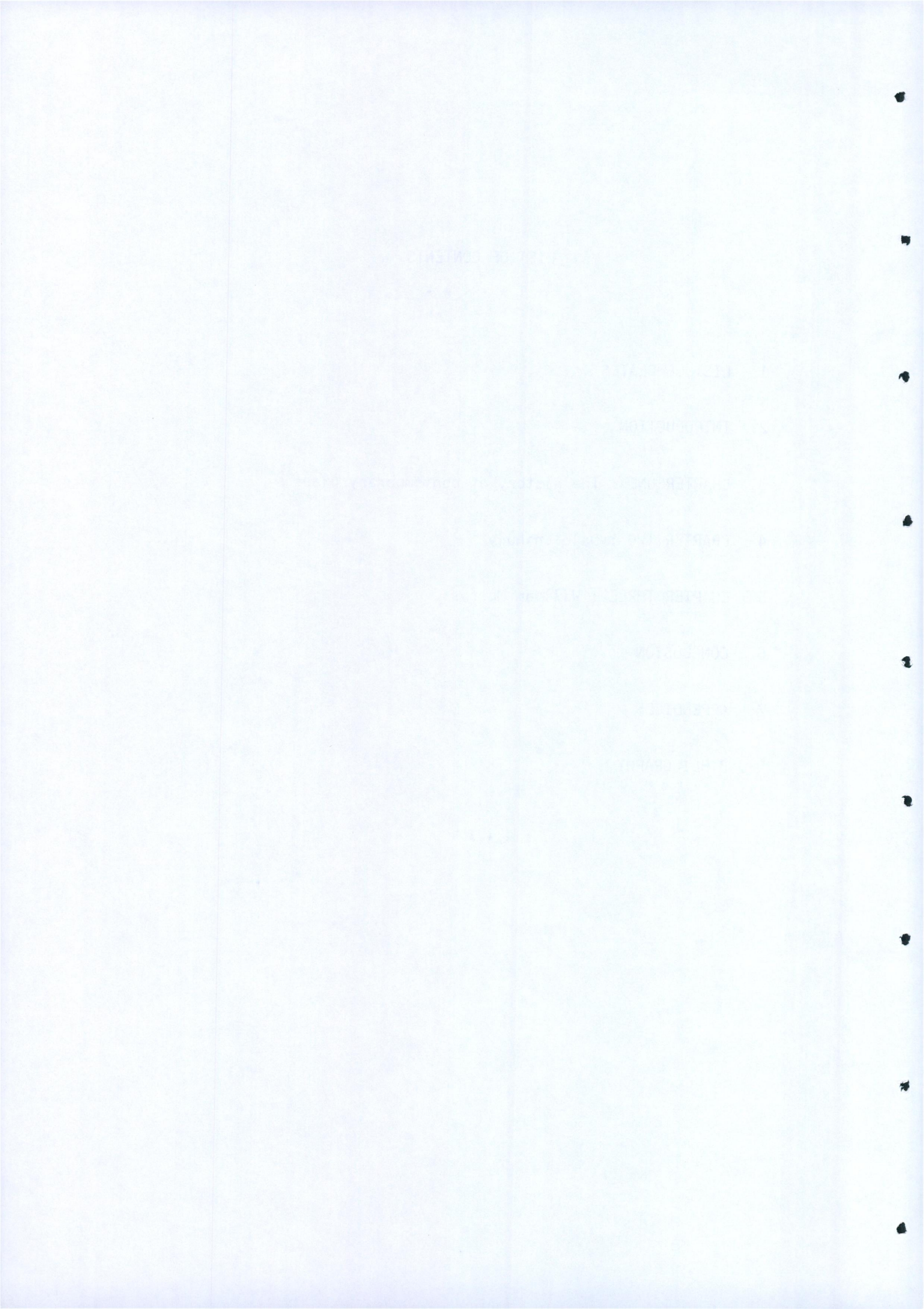
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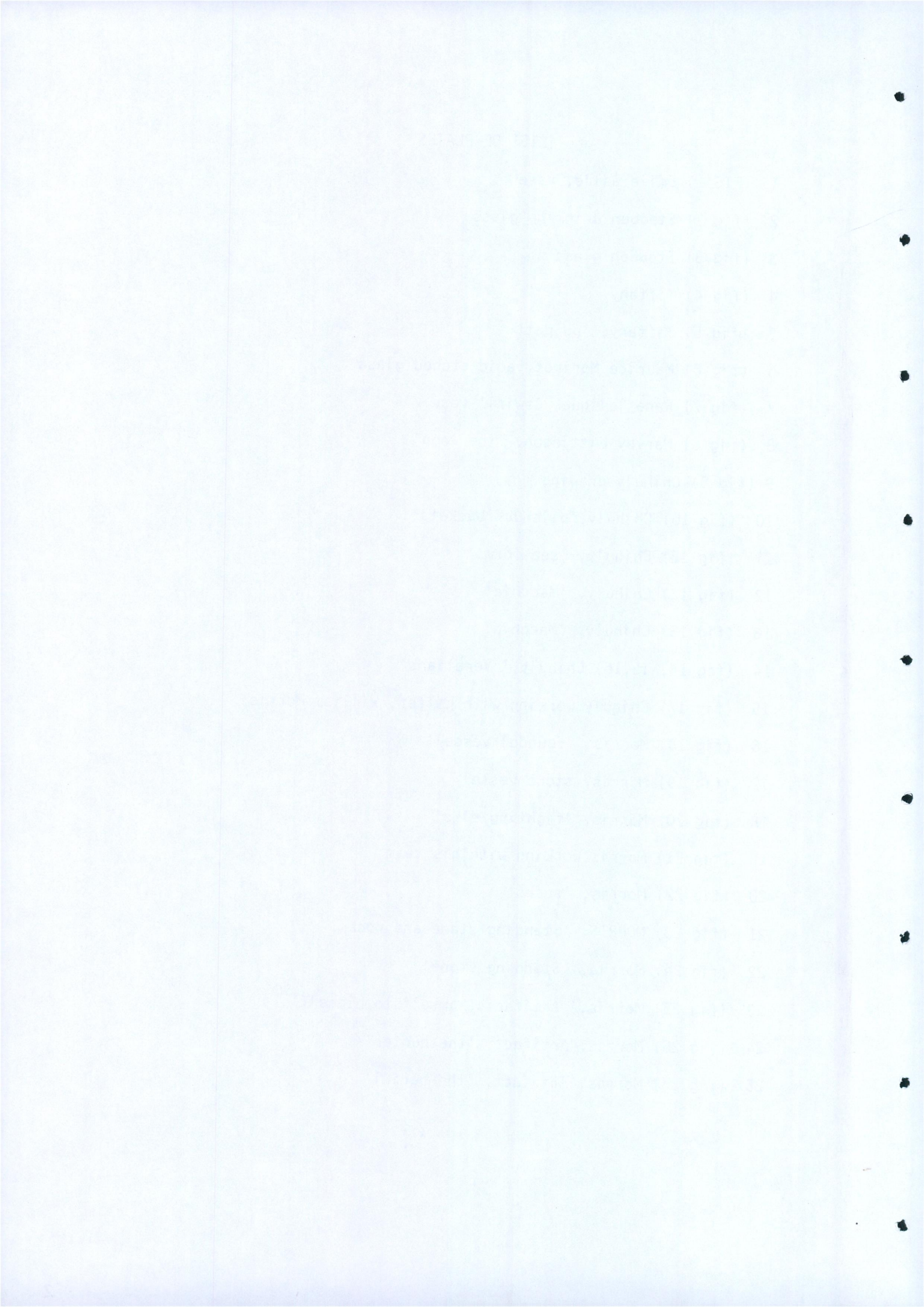
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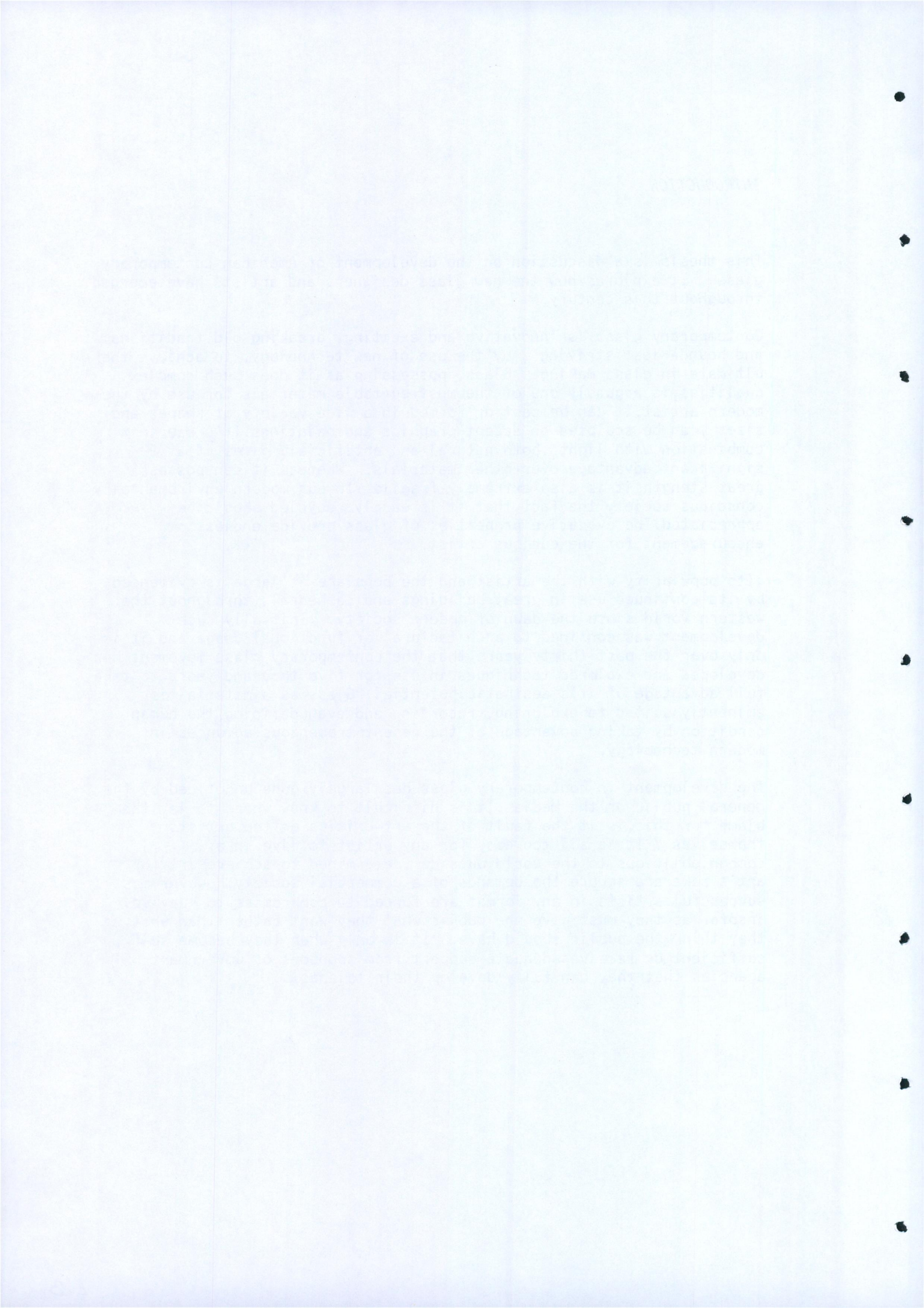
INTRODUCTION

This thesis is a discussion on the development of American contemporary glass. It explores how the new glass designers and artists have emerged throughout this century.

Contemporary glass is innovative and exciting, breaking old traditions and boundaries, striving, by the use of new technology, to achieve the ultimate in glass making. Glass, possessing as it does such complex qualities, is arguably one of the most suitable materials for use by the modern artist. It can be cast or formed in a wide variety of shapes and sizes, can be sculpted or accept graphics and paintings. Its use in combination with light, both natural and artificial, gives it a significant advantage over other materials. Whereas it can possess great strength it is also extremely fragile. In our modern environmentally conscious society the fact that it is easily recycled should be appreciated. The evocative properties of glass provide endless encouragement for the curious artist.

Its popularity with the artist and the populace at large is evidenced by its continued use in great buildings and cathedrals throughout the western world since the dawn of modern society. Initially such development was confined to architectural or functional usage and it is only over the past thirty years that the contemporary glass movement has developed and explored techniques in use for five thousand years to take full advantage of its aesthetic potential. Glass as a material is eminently suited to exploring, recording and even defining the human condition by taking advantage of the recent tremendous advances in modern technology.

The development in contemporary glass has largely gone unnoticed by the general public or the media. It is difficult to know where to lay the blame for this, is it the fault of the art critics or the artists themselves? It is all too easy for any artist to live in a cocoon, oblivious to the world outside, determined to achieve art for art's sake and ignore the demands of a commercial society. However most successful artists in any format are forced to compromise to survive, insofar as they must give the public what they want rather than what they think the public should have. It is only when they become self sufficient or receive adequate support from sponsors or Government agencies that they can fully develop their talents.



The Origins of Glass

Since the Bronze age, about 3000 B.C., glass has been used for making various kinds of objects. Glass was and still is made from fused siliceous matter such as flint or fine sand, with an alkali, salt or metallic oxides. These are the basic ingredients for what is called 'soda glass'. The development of 'lead glass' occurred in the seventeenth century. When this mixture is heated, it becomes soft and malleable and easily formed. At the same period in time, they developed many techniques which are used today. Rod and core-forming, casting and moulds were invented, they even developed the intricate process of 'Lost Wax' moulds.

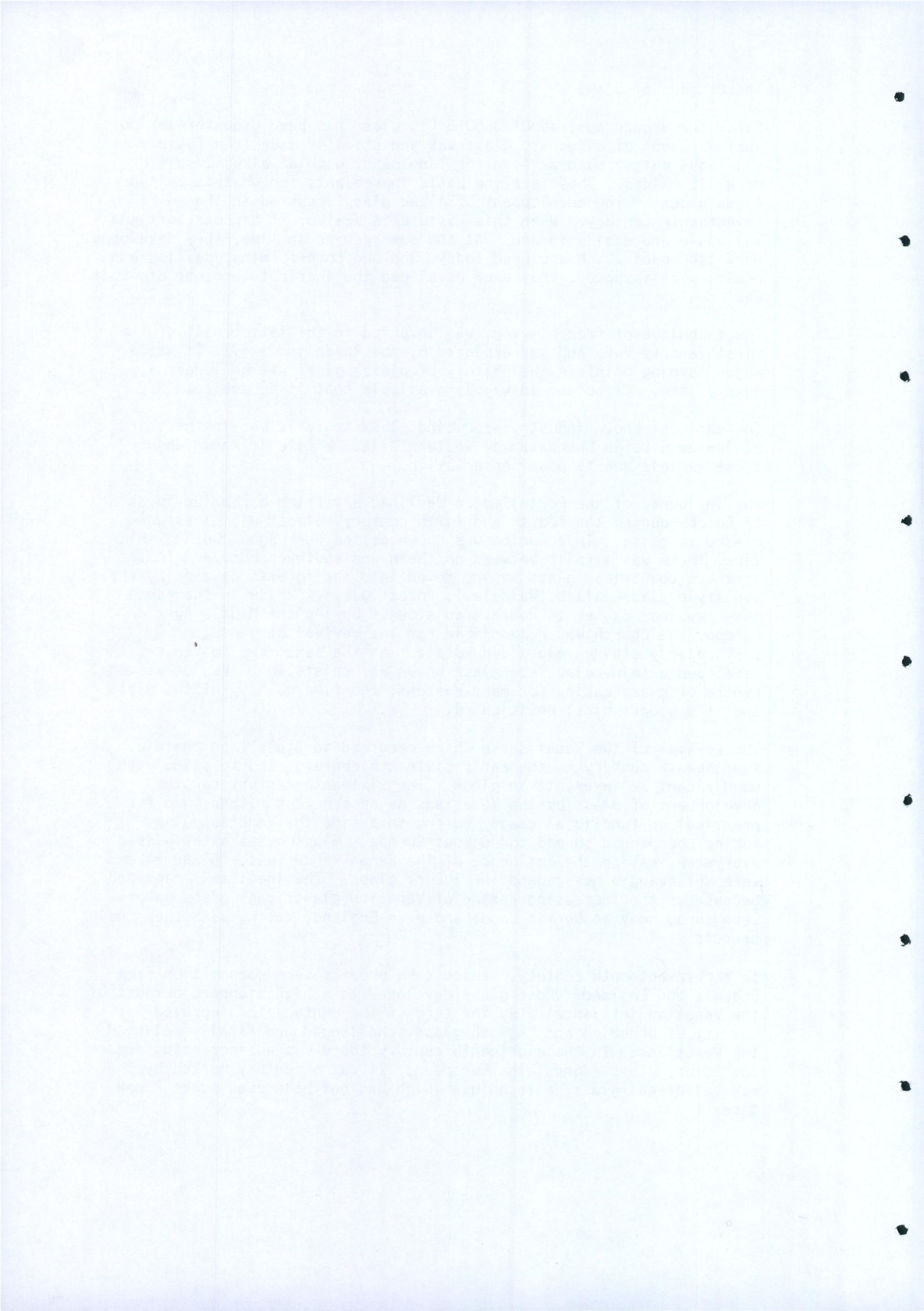
The technique of free blowing, was invented in the latter half of the first century B.C. and was explored by the Roman industry. It was a major turning point in the history of glass; glass was no longer a luxury item. It became so widely available that it became common.

The earliest known industry producing glass articles was in the third millennium B.C. in Mesopotamia, Western Asia. Little is known about these vessels due to poor preservation.

The influence of the Roman Empire declined after the barbarian invasion of Europe during the fourth and fifth century, almost all glass work ceased to exist. This period was known as the Dark Ages. During this time, there was a split between northern and southern Europe. In the northern countries, glass making moved into the forests developing their own style glass called 'Waldglas', forest glass. While in the south they remained closer to Roman traditions. During the Middle Ages in Europe, the Church was responsible for the revival of glass, particularly stained glass and mosaic. At the same time in Venice, they developed a thin colourless glass known as 'cristallo'. Venice was the centre of glass making for many reasons; the fine quality of the glass and its geographical positioning.

The revival of the Renaissance which occurred in Italy from the mid fourteenth century to the early sixteenth century, led to stimulated magnificent achievements in glass. The sixteenth century saw the development of glass by the Venetians as an ornament rather than for practical or functional usage. During this time the Venetian glass making phenomenon spread throughout Europe. Glasshouses materialised everywhere, making the influence of the Renaissance felt. Glass makers were answering a new demand for luxury glass. The inevitable happened because of the increasing demand of Venetian glass; many glass makers were lured away to German Lands and even England, taking with them their secrets.

In the seventeenth century, Venice came under severe competition from Bohemia and England (whose glass developed to a high standard because of the Venetian influence). By the turn of the century the improved quality of Bohemian and English glass, challenged and finally eclipsed the Venetians. In the eighteenth century there was an increasing demand for luxury glass amongst the Europeans. It was a century marked by the revival of cut glass, a technique which had not been used since Roman times.





(fig 1) Emile Gallé



CHAPTER ONE:

The foundations of Studio Glass

The closing years of the nineteenth century, witnessed more radical changes in the decorative arts than they had for more than a millenium. Before the Industrial Revolution, almost all glass was hand crafted. However, mechanical innovation signaled the decline of hand crafted glass. Machine made glass became a part of the environment of the modern industrial age. At the same time though, non-industrial glass became regarded as an artistic medium and lay the foundations for studio glass. Emile Gallé was the first to adopt this attitude. He is considered to be the mainspring of Art Nouveau in glass. Art Nouveau, an international style of decoration steadily developed through the 1890's, and peaked by the turn of the century. Cameo glass was the most popular type of glass at this period. The freedom and depth of expression achieved by Emile Gallé was staggering.(fig 1)

Gallé was born in France in 1846, son of a Lorraine glassmaker and had established his own glasshouse at the age of twenty-one. In the 1880's, he became the central figure in designing furniture, faience and glass. Art Nouveau began at a time when artists and intellectuals were rebelling against the new industrialisation. Art Nouveau was a style particularly suited to glass, especially in its liquid form. At Nancy in France, Gallé created style and techniques that were to be admired and imitated by glasshouses in Bohemia, Germany, Scandinavia and in his home country. It was a style richly ornamental, and it employed long, sinuous lines, weaving tendrils and flowing rhythms. Like Rousseau, Gallé admired Japanese art and really appreciated the beauty of nature. His artistry inspired many others to work in glass and he's ideas seemed 'like prophetic teaching to many other glass makers'. (Klein, 1984, p 204) Amongst those influenced were the Duam brothers, whose factory was in Nancy. (Duam glass developed a strong indentiy and is still with us today.)

Frederick Carder was a man greatly influenced by Gallé. He was born in England in 1863 and had been working with glass since he was seventeen years old. He spent many years developing the Art Nouveau styles with Galle. Soon after, Carder emmigrated to Corning, New York where he founded Steuben Glass Works before the turn of the century and by 1900, there were more than twenty small glass cutting shops situated closely around the factory. He created some of the most beautiful and original Art Glass in America. Steuben became known as one of the greatest experimental glasshouses in the country.(fig 2,3)

CHAPTER 10

The Constitution of the United States

The Constitution of the United States is the supreme law of the land. It is the foundation of the government and defines the powers and responsibilities of the federal government, the states, and the citizens. The Constitution is a living document that has been amended several times since its adoption in 1787.

The Constitution is divided into seven articles. Article I establishes the legislative branch, the United States Congress, which consists of the House of Representatives and the Senate. Article II establishes the executive branch, the President of the United States. Article III establishes the judicial branch, the Supreme Court and the lower federal courts.

The Constitution also defines the powers and responsibilities of the states and the citizens. It guarantees certain rights to the citizens, such as the right to life, liberty, and the pursuit of happiness. It also defines the powers of the states, such as the power to regulate commerce with foreign nations and to establish a militia.

The Constitution is a document that has shaped the history of the United States. It is a document that has been the subject of much debate and discussion. It is a document that has been the source of many of the country's most important laws and policies.

The Constitution is a document that is still relevant today. It is a document that continues to shape the lives of the citizens of the United States. It is a document that is a source of pride and inspiration for all Americans.



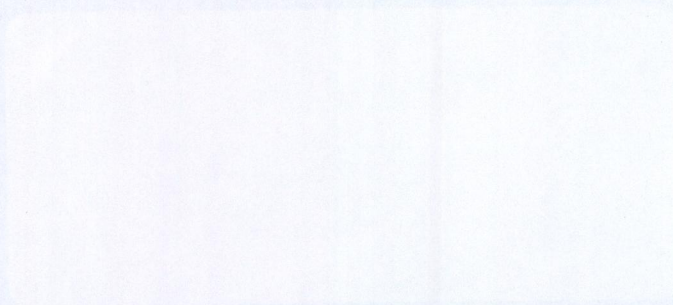
2 (fig 2) Steuben drinking glass



1912



(fig 3) Steuben Glass..



The American Louis Comfort Tiffany, son of the famous New York family of jewellers, was born in 1848 and became the first American artist to follow the European trends and began producing Art Nouveau glass in Corona, Long Island, N.Y. This was a direct result of seeing Emile Gallé's exhibition in Paris in 1891, which made quite an impression on him. Tiffany unveiled his first experimental work in 1893 and was strongly expressive of Art Nouveau. The curious beauty of tropical plants, Japanese art, and glass executed from famous historical and archaeological sites provided the inspiration for his work.

Tiffany's replicas of ancient glass filled a need for persons seeking a link with ancient cultures; his work rarely deviated from their antique counterparts in form, decoration, or colour. These copies of ancient glass objects were made in the period of Art Nouveau, and they did not mirror the revolutionary changes taking place at the time. Tiffany and Emile Galle of France attempted to return to the original form and colour of glass. They again confirmed the value of glass as a colourful, sparkling, formative material evoking an aura of elegance. The floral aspects of Art Nouveau manifested itself in various ways in their work. Galle worked mainly on the surface of glass, carving and etching floral designs. Tiffany went a step further, producing a range of floral-form vases in plain iridescent blue or gold glass; Iridescent glass was frequently used by firms such as Pantin, in France and Webb in England but it was not until Tiffany and Loetz in Bohemia began to work with it, that its extraordinary decorative potential was fully realised. (fig 4)

Tiffany developed many special formulae to produce some particular types of Art Glass; such as aquamarine, paperweight, damascened and a version of Venetian veticello called 'vetro di trina'. Tiffany was also responsible for teaching other glassmakers about the production of Art Glass. It was through Tiffany's activities that American glass came to achieve international recognition as an artistic medium of expression. The freshness of the American works were largely responsible for the revival of the glass. Its activities propelled the movement forward and gained it social recognition. (fig 5)

The work of Tiffany and Gallé had a domino effect across the world, influencing everyone, particularly in central Europe where Bohemian Art Nouveau style glassware, became notable for its use of decorative techniques and fine quality of glass. Carder and Tiffany were producing very similar work during the first quarter of the twentieth century, and many of their pieces are almost indistinguishable. By the end of the thirties, Tiffany's pre-eminence had declined and Carder, having reorganised Steuben and with ideas imported from Germany and Scandinavia became the leading glasshouse in America, making fine quality commercial tableware as well as individual crystal pieces.

The first part of the report deals with the general situation of the country and the position of the various groups. It is a very interesting and informative study of the social and economic conditions of the country.

The second part of the report deals with the specific details of the various groups and their activities. It is a very detailed and thorough study of the various groups and their activities.

The third part of the report deals with the future of the country and the various groups. It is a very thoughtful and well-reasoned study of the future of the country and the various groups.

The fourth part of the report deals with the various groups and their activities. It is a very detailed and thorough study of the various groups and their activities.

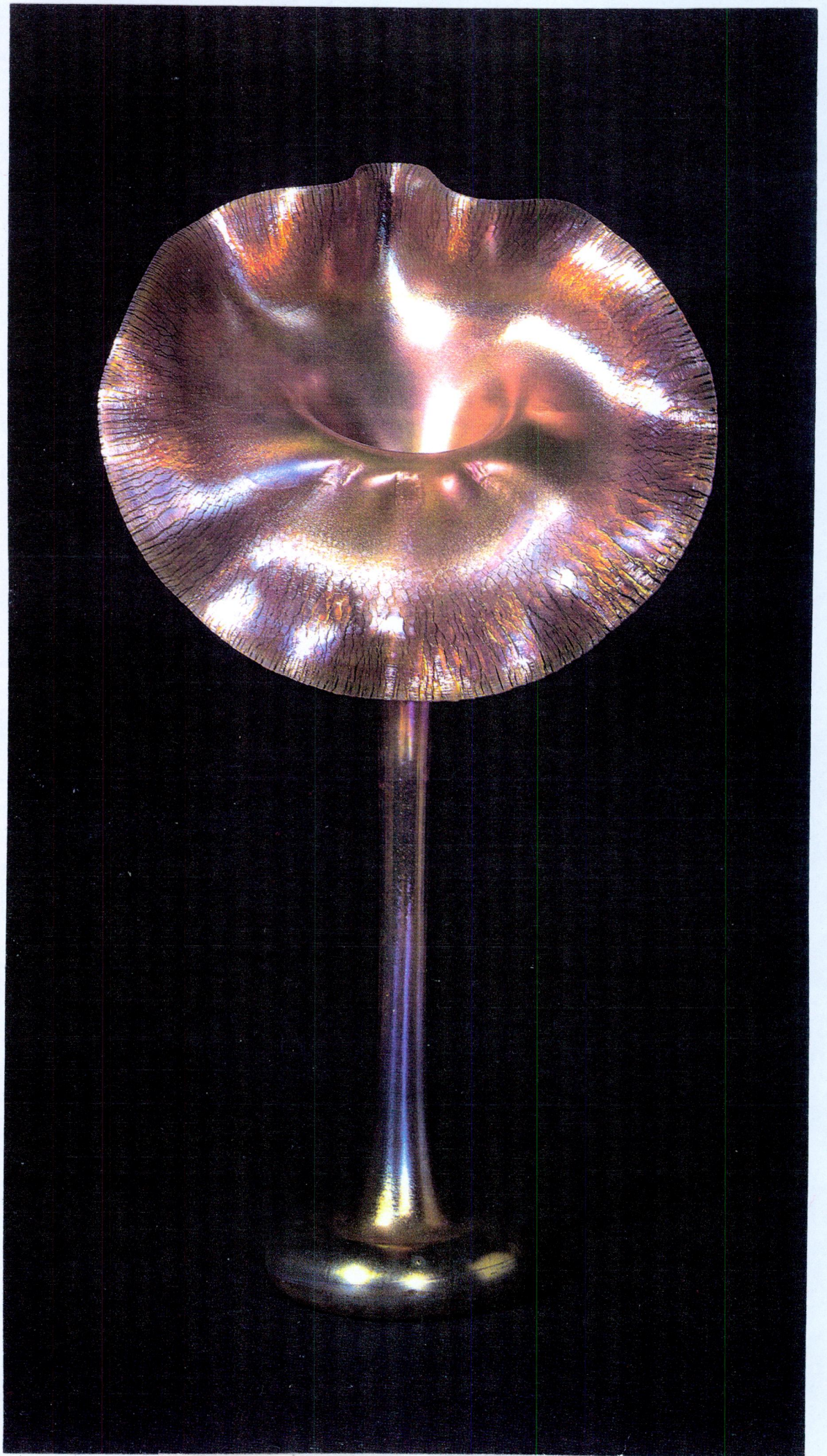
The fifth part of the report deals with the various groups and their activities. It is a very detailed and thorough study of the various groups and their activities.



(fig 4) Tiffany

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(fig 5) Tiffany 'pulpit' \wedge

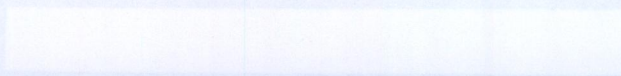
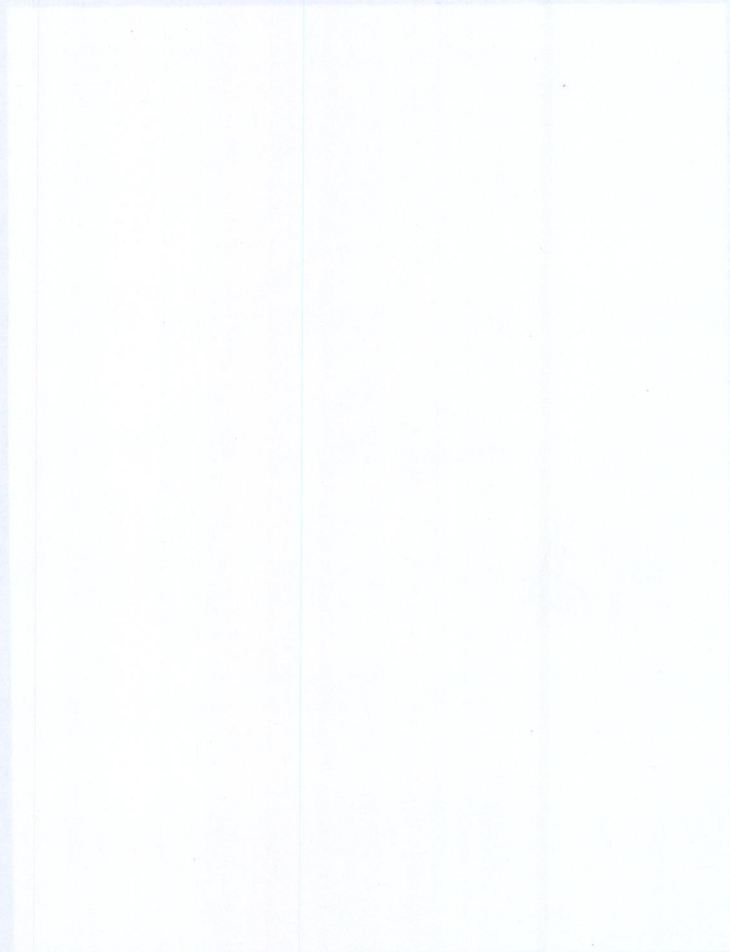
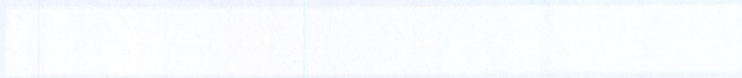




6 (fig 6) Maurice Morinot, acid etched glass



7 (fig 7) Rene Lalique, 'swirl' vase



During the period when Tiffany and Carder produced their greatest work, the industrialisation and mechanization of glass served to promote research into new manufacturing methods. It brought on growth in the size of glass furnaces and glassware was manufactured by many new companies, foremost of which was founded by Thomas Leighton a British immigrant. His company introduced many new techniques and ideas into the industry; this led to the mass production of what came to be called art glass. Another company involved in the development was The Mount Washington Glass Company of Bedford, Massachusetts, and it was also responsible for helping to change the whole trend of American glass, away from pressed and patterned glass to the free blown, coloured Art Glass. There was enormous rivalry between companies, each fighting for the right to make and label such wares with their popular names.

After World War One, trends in glass making gradually changed towards the simplification, stylisation and abstraction of line that was later to be called Art Deco. Continuous mechanical advances over this period resulted in machinery which could make finished glassware completely automatically. Depressed glass, so called because it was made during the 1920's and 1930's and up to America's entry into World War II in 1941 was produced entirely by automation. The colours were bright and cheerful, the designs appealed to public taste at this period.

Modern American glass has gone through many changes since the Depression. In industry after the second world war, with extensive rebuilding of Europe, the demand for architectural glass was high. Skyscraper architecture, since its beginnings in the first decade of this century, had given added importance to the role of glass. Glass in architecture, progressed far beyond functionalism. It had major advances in shaping and manufacturing technology. Sheets of glass could be used to form the exterior of a building, in American cities this style is self evident.

The return of prosperity at this time, also encouraged the production of fine lead crystal in some factories, among those involved Steuben glass was prominent. At the same time, glass making took a very different turn; studio glass became a viable field for artists who preferred to work on their own while the large factories of the past concentrated on the more commercial tableware.

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The Studio Glass Movement

The intricate challenges of molten glass forming continued to separate artist and craftsman until the arrival of Maurice Marinot (1882-1960). He was the first major modernist figure in glass. He was a well known exhibiting Fauve painter who experienced an instant passion for the material of glass while visiting a friend's glasshouse in Viard, France. He learned the skills of glass blowing in France and soon began to approach glass as a sculpture, concerned with body and form. He saw every piece as a challenge and used massive pieces of thick glasses. He also used deep acid etching to sculpt forms. Marinot's revolutionary approach to glass was immediately apparent in his unorthodox techniques. His work received broad recognition at the Paris Exhibition of 1925, but poor health forced him to return to painting and leave glass. Marinot's glass stands alone as the most creative, forceful statement made in the first third of this century, his influence was extensive. (fig 6)

Marcel Duchamp, also French, was another major figure associated with glass at the beginning of the twentieth century. He was an artist who helped unite sculpture and craft but somehow managed to avoid the stigma of craft, having already achieved recognition as an artist. In the making of Duchamp's window, 'The Large Glass' (1915-1923), he 'celebrated' esthetic indifference which was manifested in glass. He incorporated glass elements in ways which he anticipated would be used in the future by other contemporary artists; hinged construction, cybernetic sculpture and conceptual strategies. Duchamp did not use glass in the traditional artistic sense but was not proposing any new aesthetic in glass. His new approach to glass as an artistic form of expression also influenced many artists around the world.

The United States

In 1959, there was a special exhibition of international contemporary glass at the Corning Museum of Glass, New York. 'Glass 59', was the first of the major museums shows and one of the most important single events in shaping the history of modern glass. There was over two thousand slides entered.

In the same year a large number of artists interested in glass attended a symposium at Lake George, New York. There was great excitement amongst artists all over the world about the meeting. There they discussed the future of glass and concluded that glass making should rightfully assume a position as a creative activity for artists and that the activities and ideas of Tiffany and Galle be revived.

The City of New York is a large and diverse metropolis with a rich history and a vibrant culture. It is a city of opportunity and innovation, where people from all over the world come to live, work, and play. The city's economy is a mix of traditional industries and cutting-edge technology, and it is a global leader in many fields. The City of New York is a city of contrasts, with its skyscrapers and modern amenities alongside its historic landmarks and neighborhoods. It is a city that is constantly evolving and growing, and it is a city that is proud to be the center of the world.

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8 (fig 8) Harvey Littleton. 'the loop'

Amongst those who responded to the call of 1959, was the American Harvey Littleton. He studied at the Cranbrook Academy of Art and at Brighton School of Art, England and he soon established a name as an artist and instructor in ceramics at the University of Wisconsin. Nevertheless, he still pursued his interest in glass and proceeded to make his own furnace for glass making in his own studio. It was at the furnace that he devoted himself on his personal quest for developing glassmaking. He received great support and encouragement from his life long friend Frederick Carder.(fig 7)

In 1962, Dominic Labino, a scientist and artist, specialised in the development of high-quality, stable glass composition and furnace designs. He had by far the greatest technical resources and worked for years on developing colour. Maurice Marinot had a lasting influence on him. Labino was also responsible for developing a new formula for glass which could be melted in a small kiln that held enough material for an individual or small team. This formula was of great significance to the studio glass movement. In the same year, Harvey Littleton with the help of Dominic Labino, his colleague, conducted immensely important workshops at the Toledo Museum of Art. It was his aim to put the artist in direct contact with the material in a studio situation. It was in the early 1960's, that he instigated the first University glass training program in North America. Since then several of his students have become leading educators in glass; Marvin Lipofsky who in turn established the second University of glass at Berkeley, California. Also, Dale Chihuly has been highly successful, having had major exhibitions at museums around the world.

The 1960's were years of discovery, exploration and experimentation. However, the quality of the early work was poor; it was heavy and thick. Coloured glass expands and contracts at different rates and if the glasses are not compatible, the glass fractures. The work produced at this time was closely related to contemporary ceramics. This is not surprising, since many of the participants in the Toledo Workshops came from ceramic backgrounds.

Up to this point, America's history of studio glass has been brief and simply traced, this is because before 1970, only a handful of artist existed and they were principally concerned with mastering the craft. Work then was loose, simple and was certainly not near the quality it was destined to achieve in the future. As technical barriers were broken more attention could be given to aesthetics. During the mid 1970's aesthetic development in glassmaking became extremely individualised and fragmented. This was because of the variety of artists working in glass especially those without a history of glass craft. Also the delicate quality and technical nature of the material presented a wide range of problems for the artists. The majority of the individuals working with glass were infatuated with technique; objects tended to be very technical in execution. However the large scale neon environments of Dale Chihuly and James Carpenter offer notable exceptions. These artists, had a stronger conceptual approach to glass, producing work well outside the confines of the movement.

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During the mid-seventies, technical sophistication began to equal the conceptual involvement of the artist and forced the work to be taken seriously. As public curiosity and acceptance increased, so too did the prices. This development gave the artist an increasing degree of freedom. In its brief history in America, this new approach to glass has attracted a wide range of artistic involvement and established a new tradition of craftsmanship. To date, the most important development remains the technical ability of the glass artist to express their ideas in the material.

In 1979, the Corning Museum of Glass presented 'New Glass: A worldwide survey'. This had a significant influence on the future of contemporary glass. It was the first survey organised in America and showed the startling changes that had taken place over the previous twenty years. There was a staggering six thousand slides entered, nearly triple the amount of 'Glass 59'. In the same year, the Leigh Yawkey Woodson Museum, Wisconsin, organised exhibitions for the public such as 'Americans in Glass', 1979, 1981 and 1984. These events were of great importance as they drew the public's attention to art in glass.

In the early eighties, the Metropolitan Museum of Art New York, took a strong position in support of studio glass. It began by laying the foundations for a fine collection of contemporary artists work. A number of other museums followed suit and devoted themselves exclusively to studio glass. During the eighties, the concerns and trends of the artists continued to develop. There were however, looking for specific visual effects and concentrated on obtaining them.

Now in the nineties, technology has become so advanced that so many things are possible. Studio glass has become so vast, artists are exploring every possibility in all its forms; hot or cold. The past thirty years have been marked by many technological advances in the studio glass movement and increased skill on the part of the artists as well as diverse methods of glass making. We are at a critical point in glass history, a point identified with a climate of new ideas about glass and its place in the larger community of art. Individual studio glass making has introduced a series of new aspects into the development of glass. It has opened a new creative perspective and the new forms have made glass a part of modern sculpture, painting, and architecture. It has also altered the sense and social function of glass.

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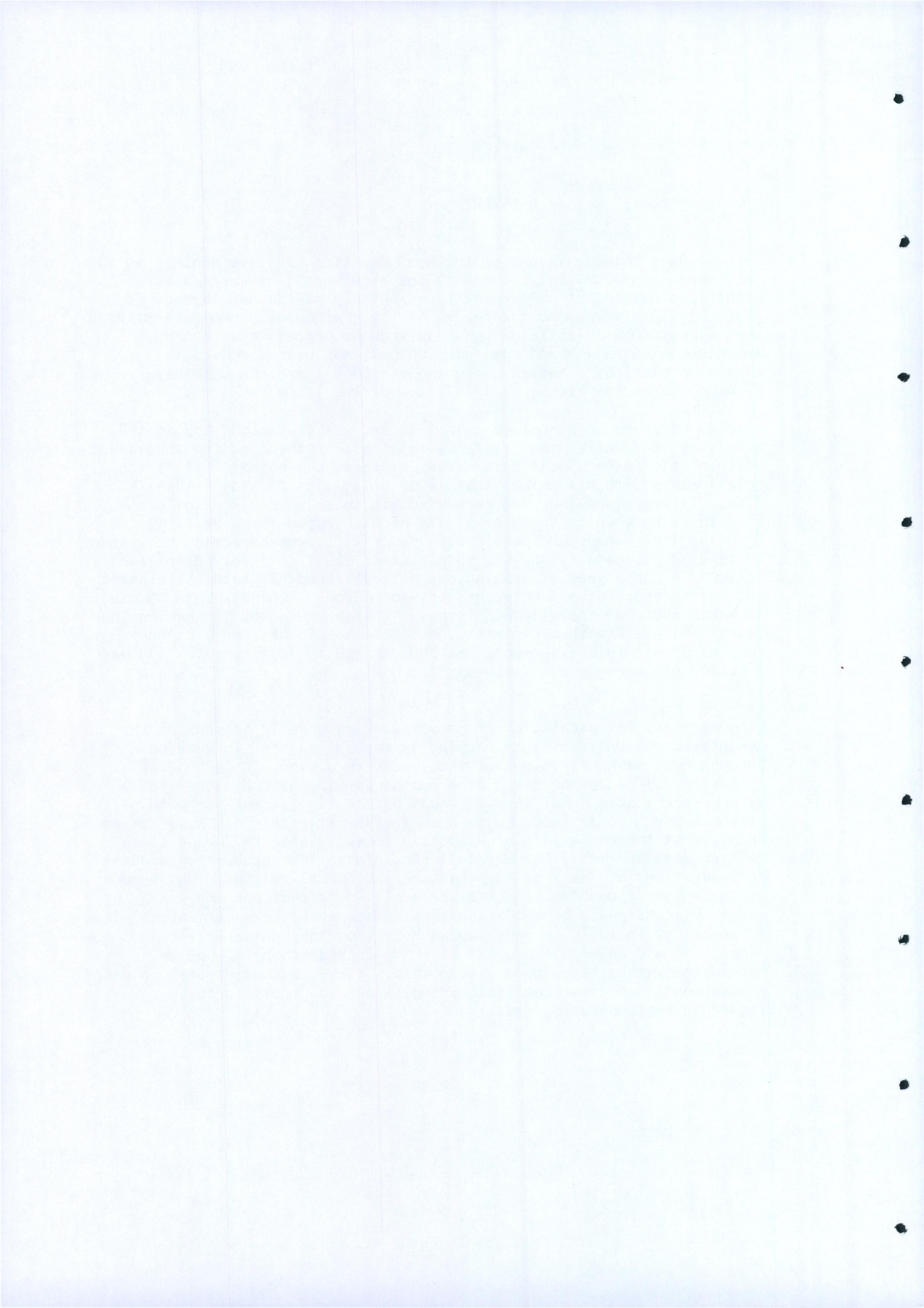
CHAPTER TWO

DALY CHIHULY

Dale Chihuly is one of the most exciting creative mentors in contemporary glass. This is due to the experiments he carried out, using combinations of colour and form, Chihuly has pushed the art of glass blowing far beyond the realms of the craft world into radically new directions. Glass blowing is an arduous process that demands intense concentration and control. Chihuly has been involved in exploring glass as a medium since the mid 1960's and his work has matured and become much more lifelike over the years.

Dale Chihuly was born in Toconoma in 1941 and was the second boy in the family of two. After the tragic death of his brother and the subsequent death of his father, Dale became very close to his mother. It is the relationship with his mother that is of great significance in Dale's life. It was his mother who persuaded him to go to college in Toconoma. From there he went to the University of Washington for a year. Chihuly, like many young people was unsure as to the direction he wished to take in his career, he was sure however, that it involved interior design. After a year at Washington, he redesigned his mother's basement and at the end of the summer, he left for Europe. Chihuly based himself in Paris and then travelled to Israel. When he returned to America, he resumed his work with excitement and interest. To this day, Chihuly considers that this experience was of "paramount" importance. This was a period of learning and discovery for him.

From here on, the pace at which he was working greatly increased. He re-entered the University of Washington where he majored in weaving. Through weaving he first became involved with glass. In 1965 after receiving his degree he spent nine months working as a designer for a firm of architects. But it wasn't long before his fascination with glass beckoned him. So in 1966, he joined Harvey Littleton's M.F.A. Program in glass at the University of Wisconsin for two years. Although formal tuition was important, Chihuly felt the information passed from student to student was at least as important as the formal tuition. While much of the ambience was due to the experimental nature of working with glass, Wisconsin was probably the first place where he experienced life as an artist. In 1967, he received an M.S. from the University of Wisconsin and entered a program at Rhode Island School of Design in Providence with a teaching assistantship. There he concentrated on neon environments and first met Italo Scanga (a man who proved to be a key figure in contemporary glass).



In 1968, he received his M.F.A. in glass and was awarded the Tiffany Foundation Grant for work in glass. The American glass industry's attitude to individual glass artists was unhelpful, so having received a Fulbright Fellowship to study in Italy, he went to Murano, Venice. There he learned the value of working with a team, the value of friends and the inspiration he obtained through working with them. He became the first American glass blower to work at the Venini Glass Factory, Murano. Murano has a tradition in glass blowing that dates back to 1000 AD. During the 15th and 16th centuries, glass blowers worked in hundreds of factories around the island of Murano, and were confined there. This was not only for reasons of safety but also to keep their secrets. Later that same year he began teaching in at Haystack, Deer Island, Maine.

In the year 1969 and 1971, Chihuly and James Carpenter, one of his students, produced a number of a large-scale environments, mostly in glass and neon. These environments caused great interest and brought them recognition amongst the public. This set new directions for the glass movement in America and other countries. In 1971, with a \$2000 grant from the union of independent Colleges of Art, Chihuly's dream of the 'perfect' art school for glass became closer. 'Pilchuck' became a reality when he and a crew of friends and students set up the first stages of a school solely dedicated to glass. He located the school on a tree farm just north of Seattle. (Chihuly, 1984, p 4.)

In 1974 Chihuly discovered a method of drawing on glass with the help of the artist Flora Mace and his student Kate Elliot, they began pulling thin threads from richly coloured glass rods. He immediately made a visual connection between the threads and woven fabric, linking his experience of weaving in college, he saw the possibilities for glass forming. He devised a method of picking up a selected pattern of these rods on the surface of the glass and this began with his first important series, the blanket cylinders and initiating the work that would lead to his first critical acclaim as an independent artist.

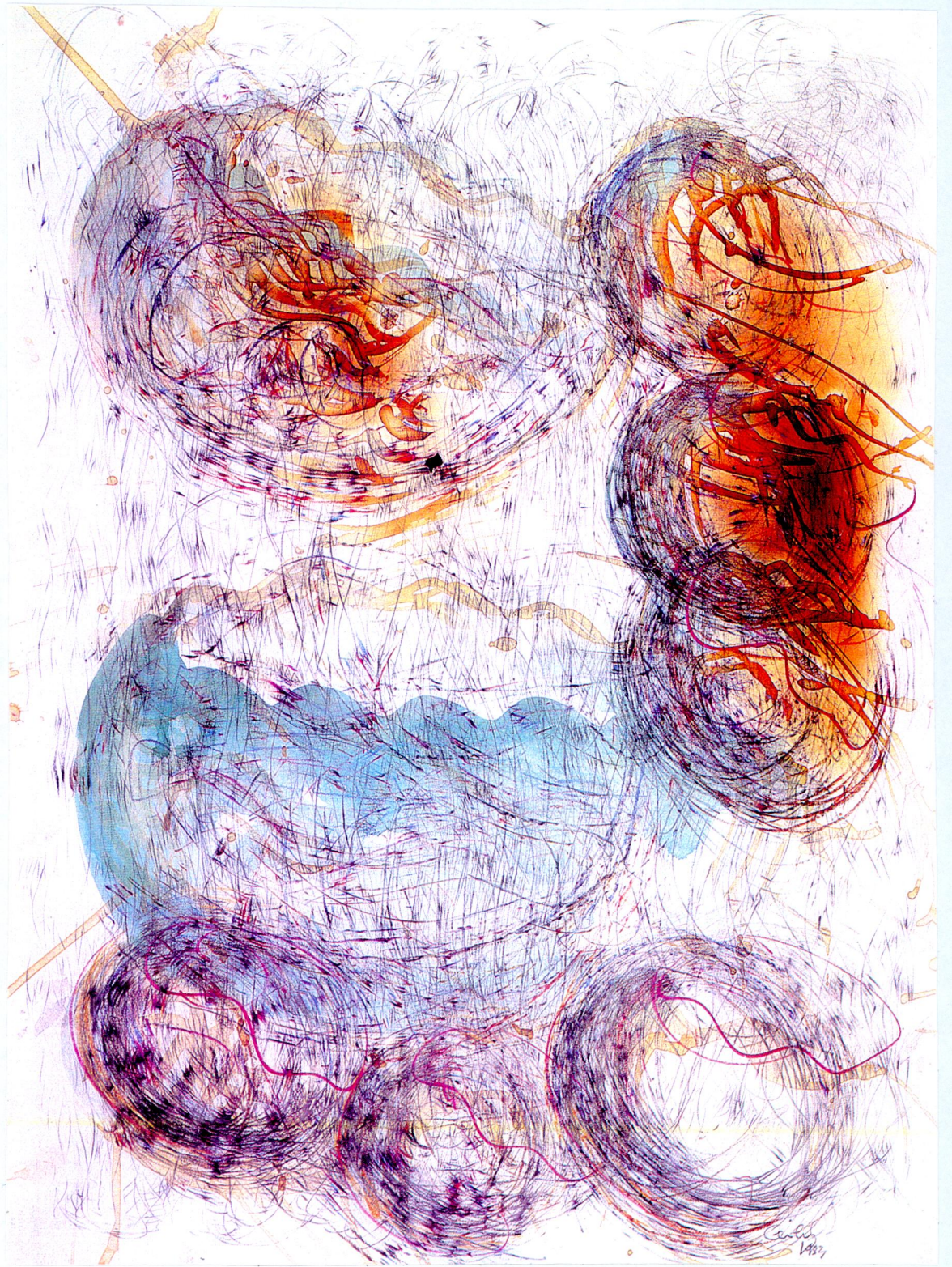
Chihuly has a profound interest in objects whose functional and aesthetic identities cannot be separated. This is not to imply that he has ever really made, or wanted to make functional wares. In Chihuly's words "simple functional forms that become nonfunctional".

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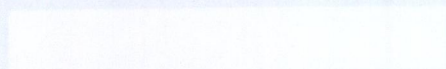
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9 (fig 9) Chihuly drawing



For a time Chihuly spent more time on photography and drawing than he did on the physical side of blowing using a team to make up his designs.(fig 9) ' With photography Chihuly arranges all the sculptures against black glass, so they seem to float, making the pieces seem more disembodied than they are. Photographs do not falsify the abilities of the glass but simply exaggerate and push its potential'.(Chihuly, 1984,p6.) With his drawing, he uses a number of pencils held together, giving the drawing great energy and vigour with more animated feeling. In contrast to some of his more highly decorative pieces, his drawing is simplistic.

In 1976, Chihuly lost the vision in his left eye and was forced to give up glass blowing himself. Fortunately, he had already discovered that through team work and a master blower, more ambitious ideas were possible. Consequently, a further smoothing out of the division of artist/ craftsman/ designer occurred.

The Blanket Series (1975)

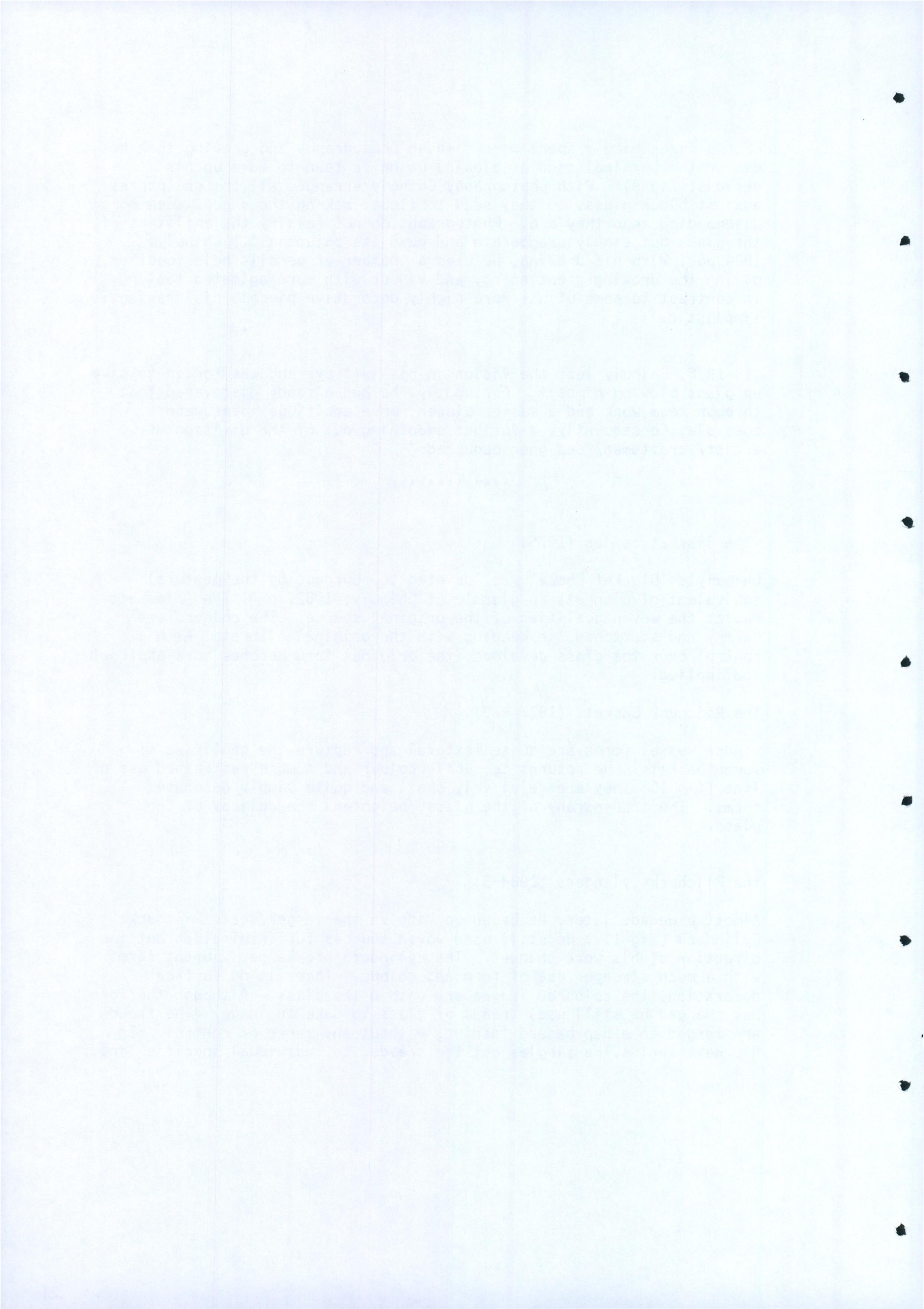
Chihuly's 'Blanket Phase' was 'devoted to reproducing the gestural equivalent of blankets in glass'. (Chihuly, 1982, p 4) The 'blankets' depict the woven qualities of the original source. The colours are earthy and scorched, in keeping with the original blankets. As his control over the glass develops, the original form becomes more abstract and implied.

The Pilchuck Baskets (1977 -79)

These vessel forms are quite textural and capture the qualities of woven baskets. He returns to subtle colour and a more restrained use of line.(fig 10) They are relatively small and quite simply decorated forms. The transparency of the glass heightens the delicacy of the glass.

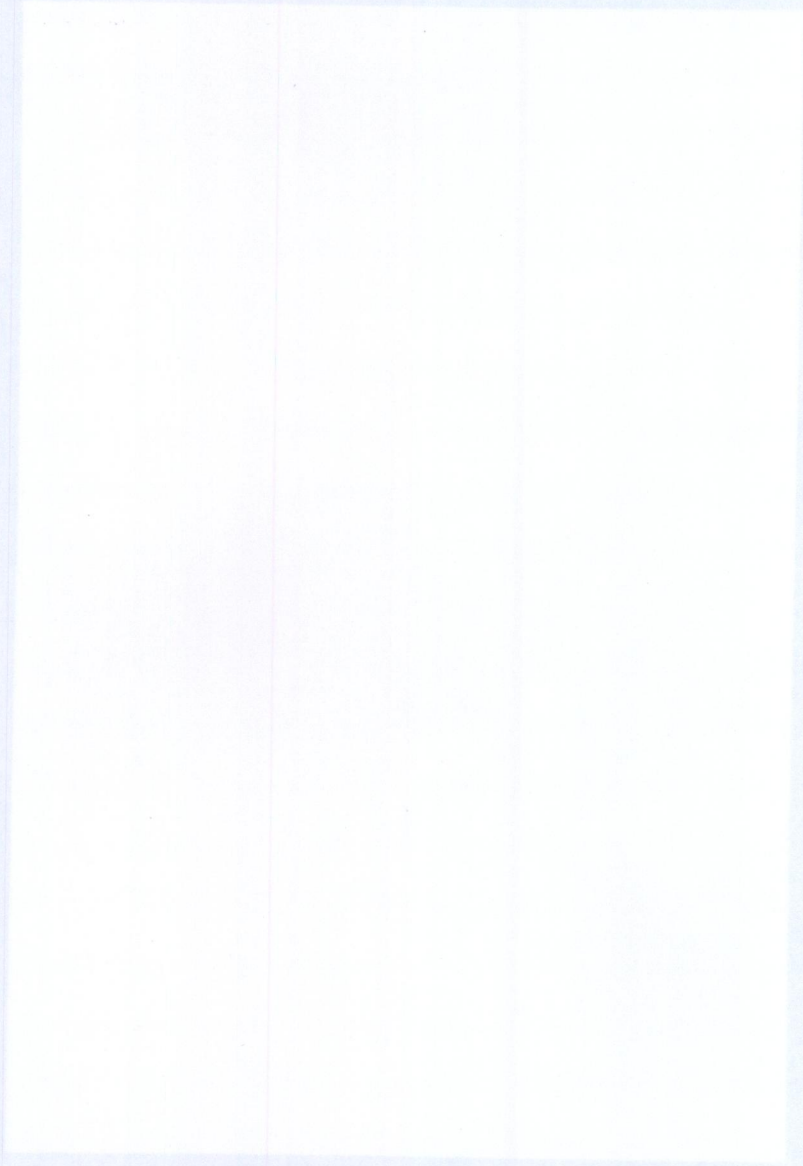
The Pilchuck Cylinders (1984-5)

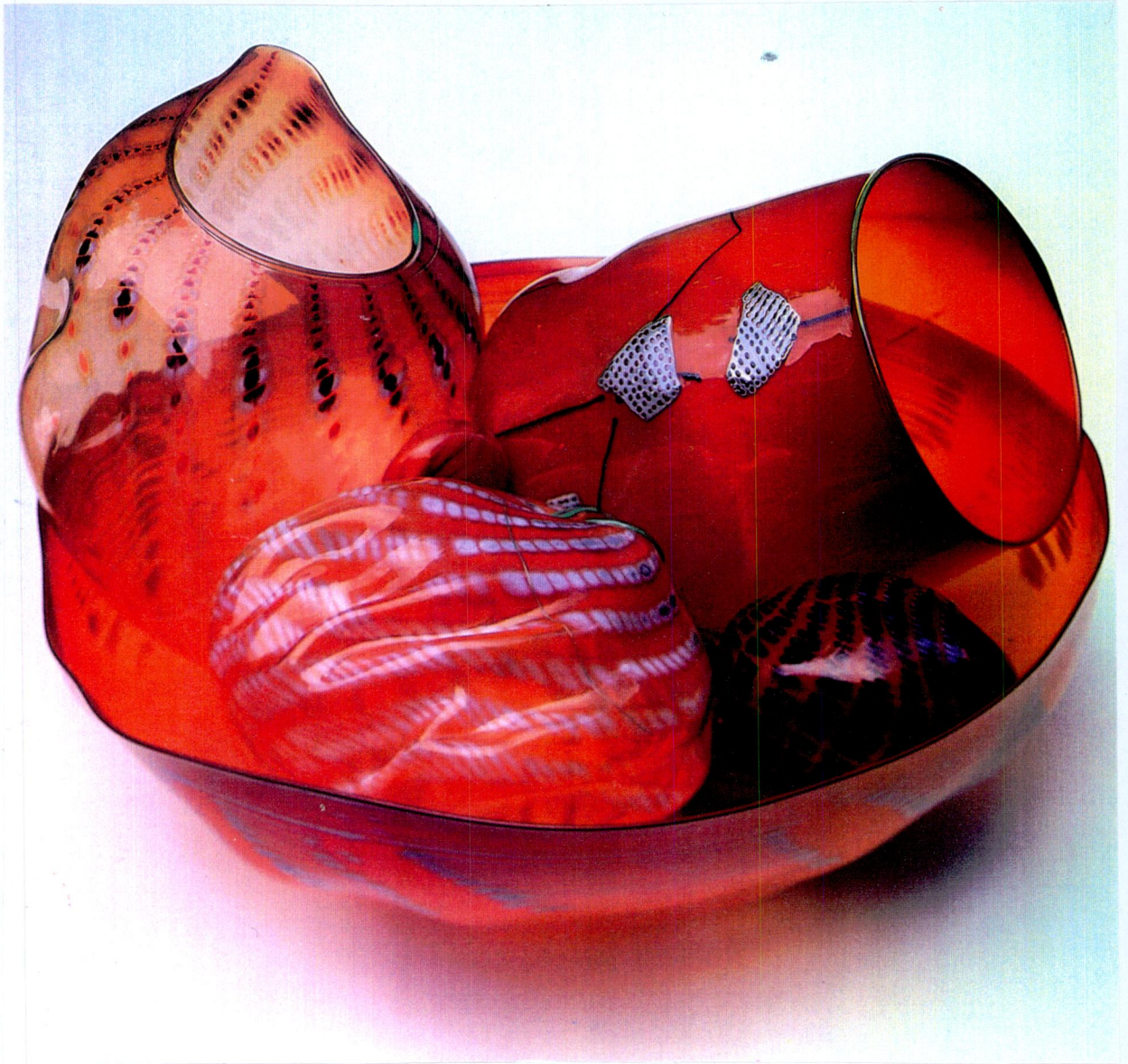
Almost a decade later, he began working on the larger scale Pilchuck Cylinders (fig 11) He still used woven sources for inspiration but the direction of his work changed. The cylinders are large, vibrant forms with a much stronger use of form and colour. There is no surface decoration, the coloured images are within the glass. Although the form has changed he still uses treads of glass to make an image. The treads are merged in a hap-hazard fashion, without any sense of control. In his next series, he singles out the treads, to individual specific line.



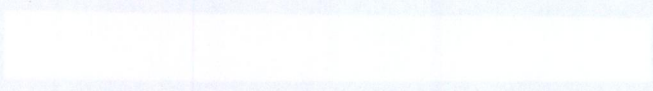


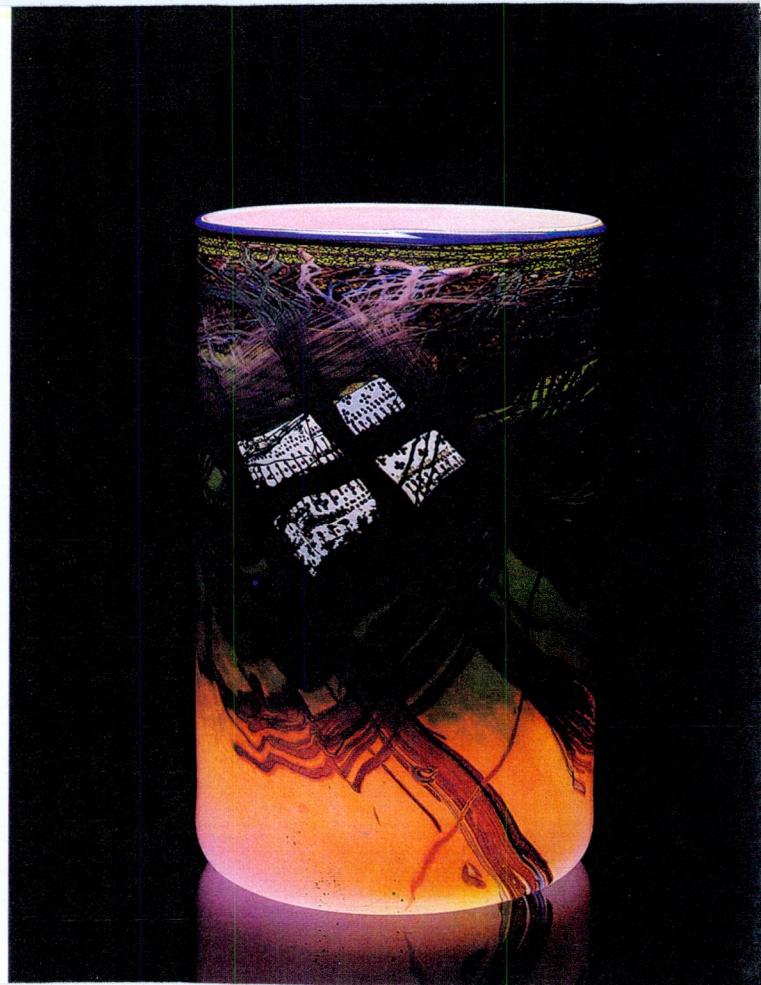
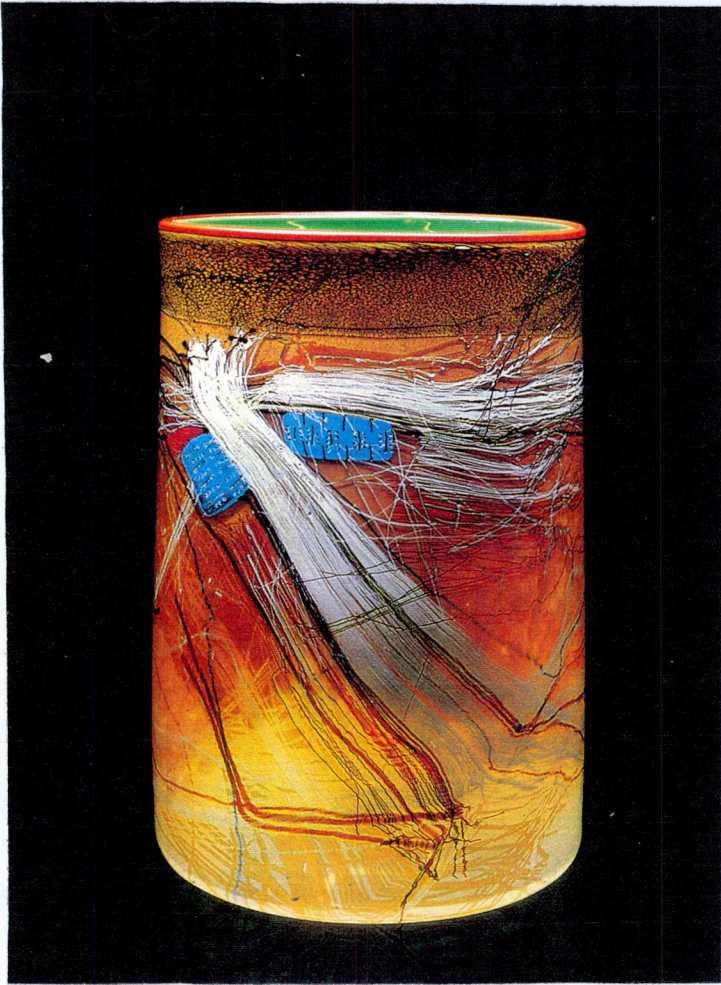
(fig 9) Chihuly working with gaffer, William Morris



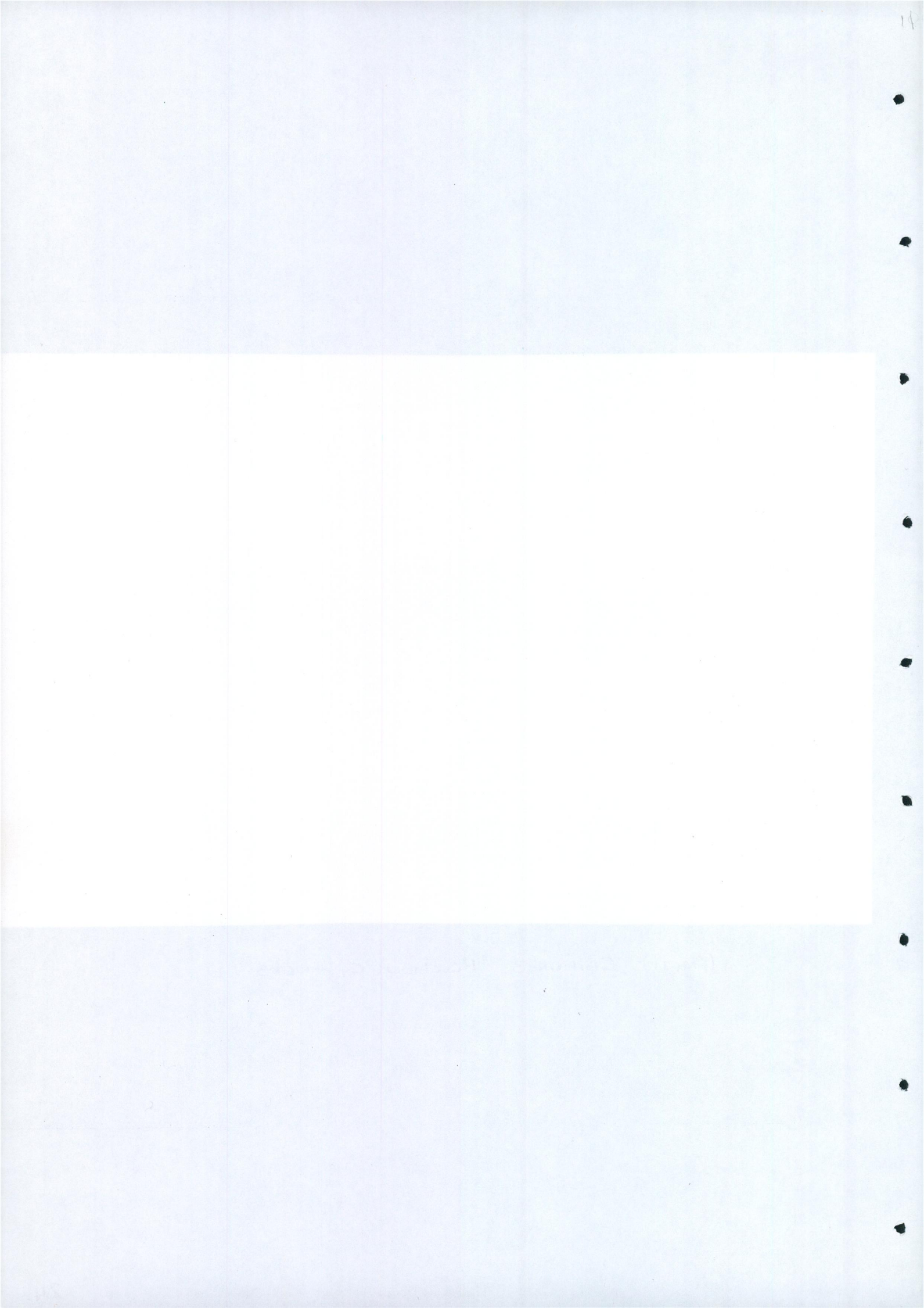


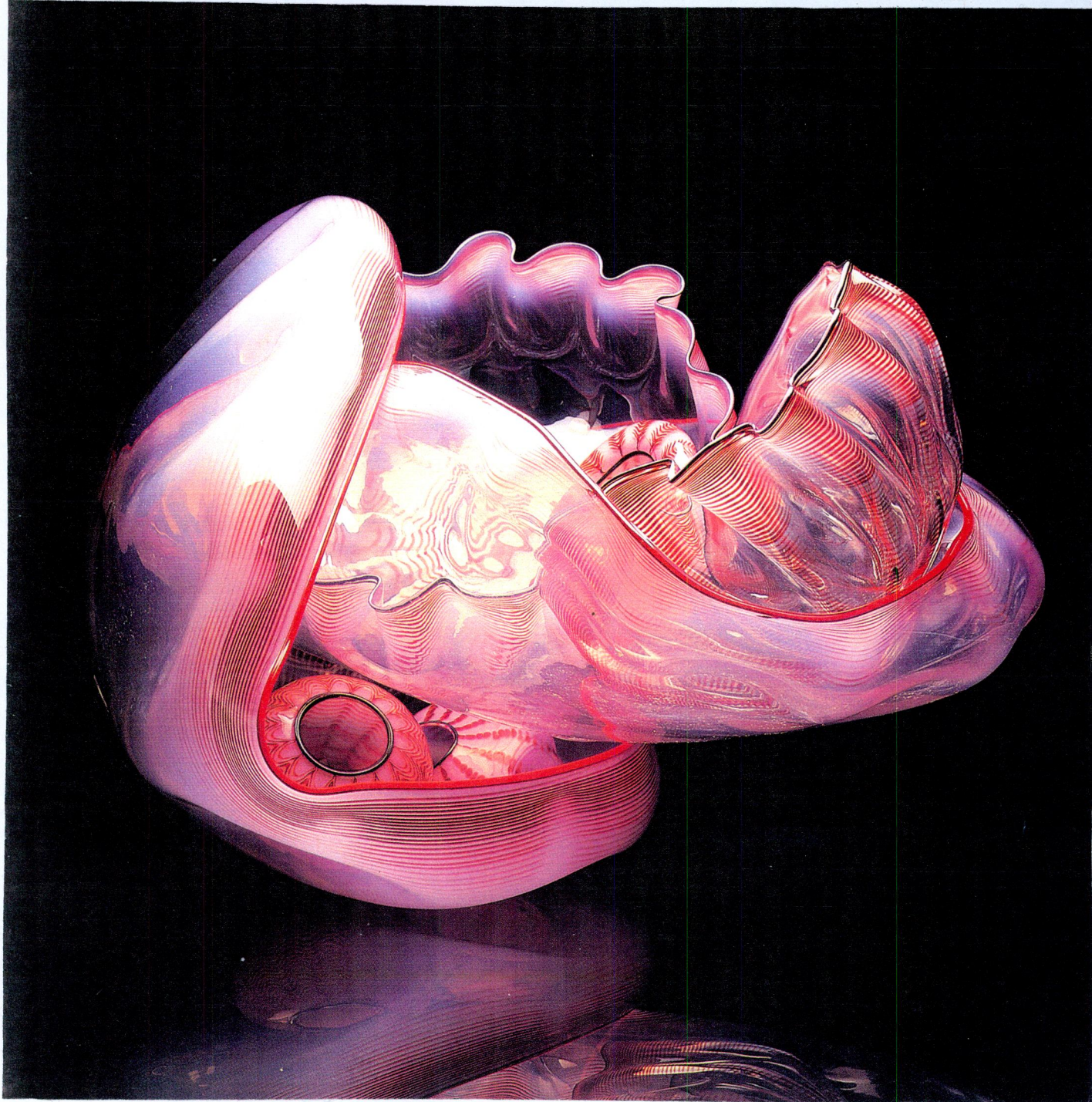
10 (fig 10) Chihuly, 'pilchuck baskets'



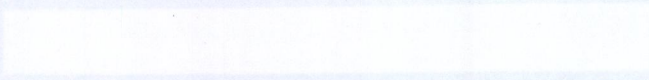


(fig 11) Chinuly's 'PILCHUCK CYLINDERS'





11 (fig 12) Chihuly, 'sea forms'



The Sea Forms (1984-85)

In the 'sea form' series he uses line to map the movement of the piece in space. With the sea forms and shell forms, Chihuly is moving away from the specific towards the abstract. While he obviously had in mind such concerns as lightness, freedom space and infatuation with colour. Chihuly's recent forms emerge from depths of an independent, vital imagination. Chihuly's 'sea forms' are transparent, more asymmetric than before and far more complex. (see fig 12) This piece is a series of smaller forms nesting within a larger single form. These are thin sensual forms and are delicately coloured. The layering effect, creates volume and depth. The transparency of the glass allows us to focus on the inner forms which adds even more dimension to the work being created.

The Macchia Series (1983-86)

Chihuly's Macchia series is quite different from anything he has previously made. He began working on Macchia while he was still making the 'sea forms'. The form is a development from the 'sea form' but the bold use of colour completely transforms the piece (see fig 13). The undulating surface is the key to the forms movement; it brings it to life! He concentrates on creating flowing rhythms in his work, as his work develops, he has a greater ability to define movement. Some of the later series were much larger and like the 'sea forms' contained smaller forms. (fig 14)

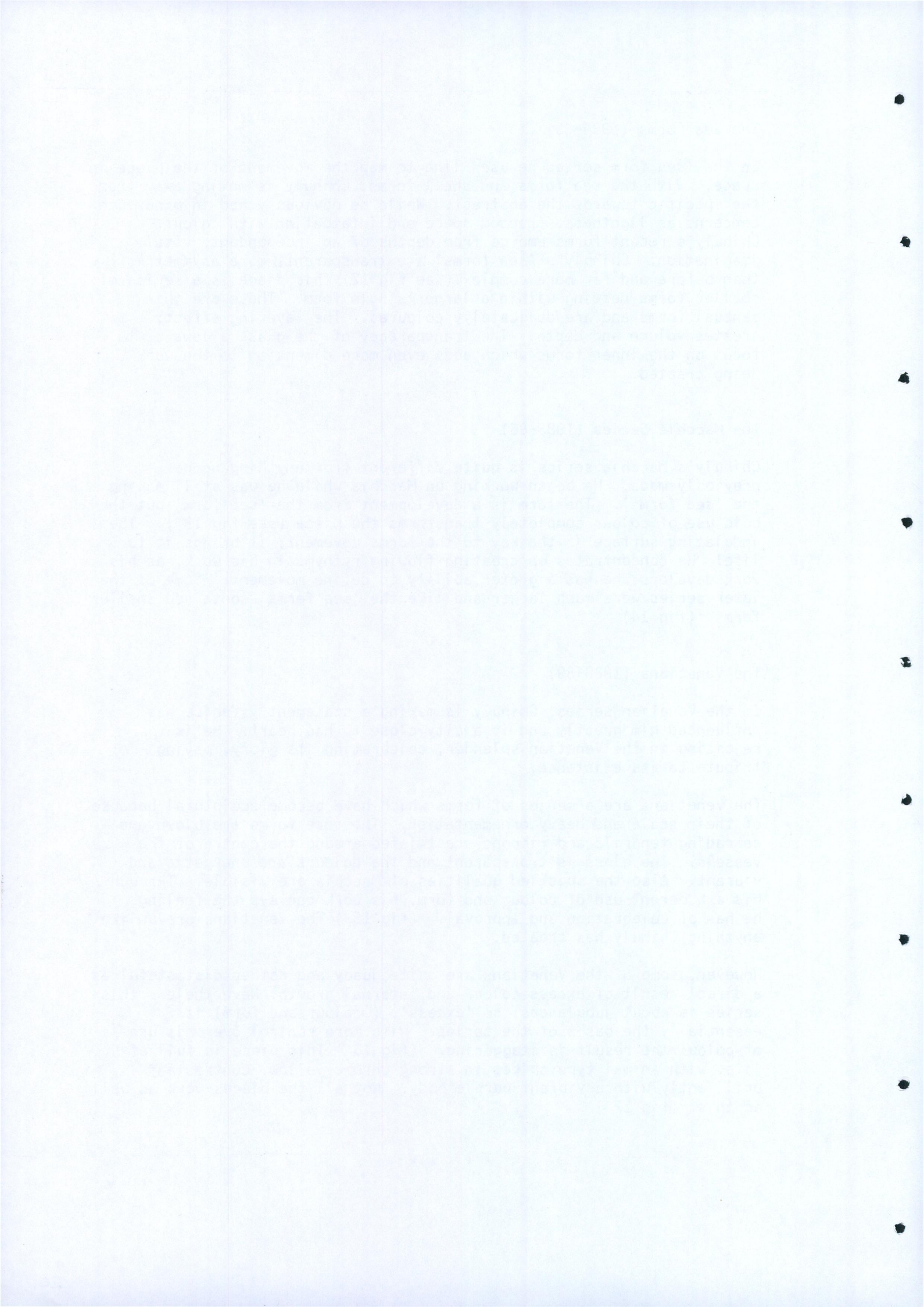
The Venetians (1988-89)

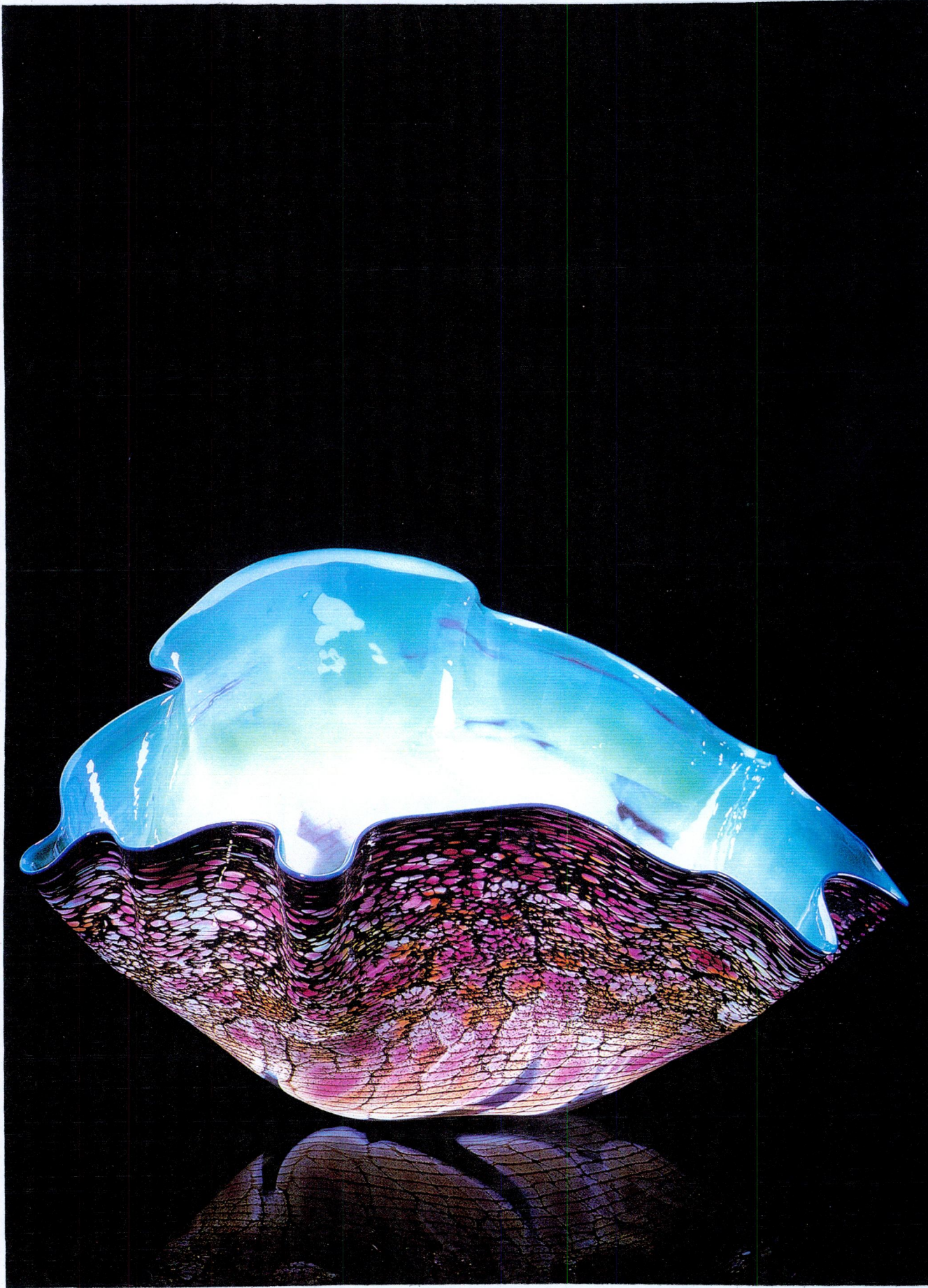
In the Venetian series, Chihuly is making a statement. Venice has influenced him greatly and is a city close to his heart. He is rejoicing in the Venetian splendor, celebrating its glory, paying tribute to its existence.

The Venetians are a series of forms which have become sculptural because of their scale and heavy ornamentation. The core forms are blown and cascading tendrils and ribbons are twisted around the centre of the vessels. The glass is transparent and the colours are energetic and vibrant. Also the speckled qualities of Macchia are visible. Through his exuberent use of colour and form, his work conveys the feelings he has of celebration and approval. (fig 15) The Venetians are unlike anything Chihuly has created.

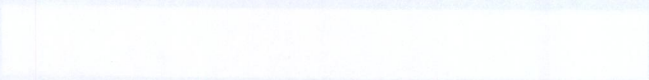
However, some of the Venetians are quite gaudy and rather distasteful as a direct result of excess colour and internal growth. Nevertheless this series is about jubulances; so 'excess', (colour and form) is essentially the basis of the series. With more control over his use of colour the result is staggering. (fig 16) This piece is full of life, with animal type spikes in strong chrome yellow, contrasting brilliantly with a vibrant purple body. Not all the pieces work as well as this. (fig 17)

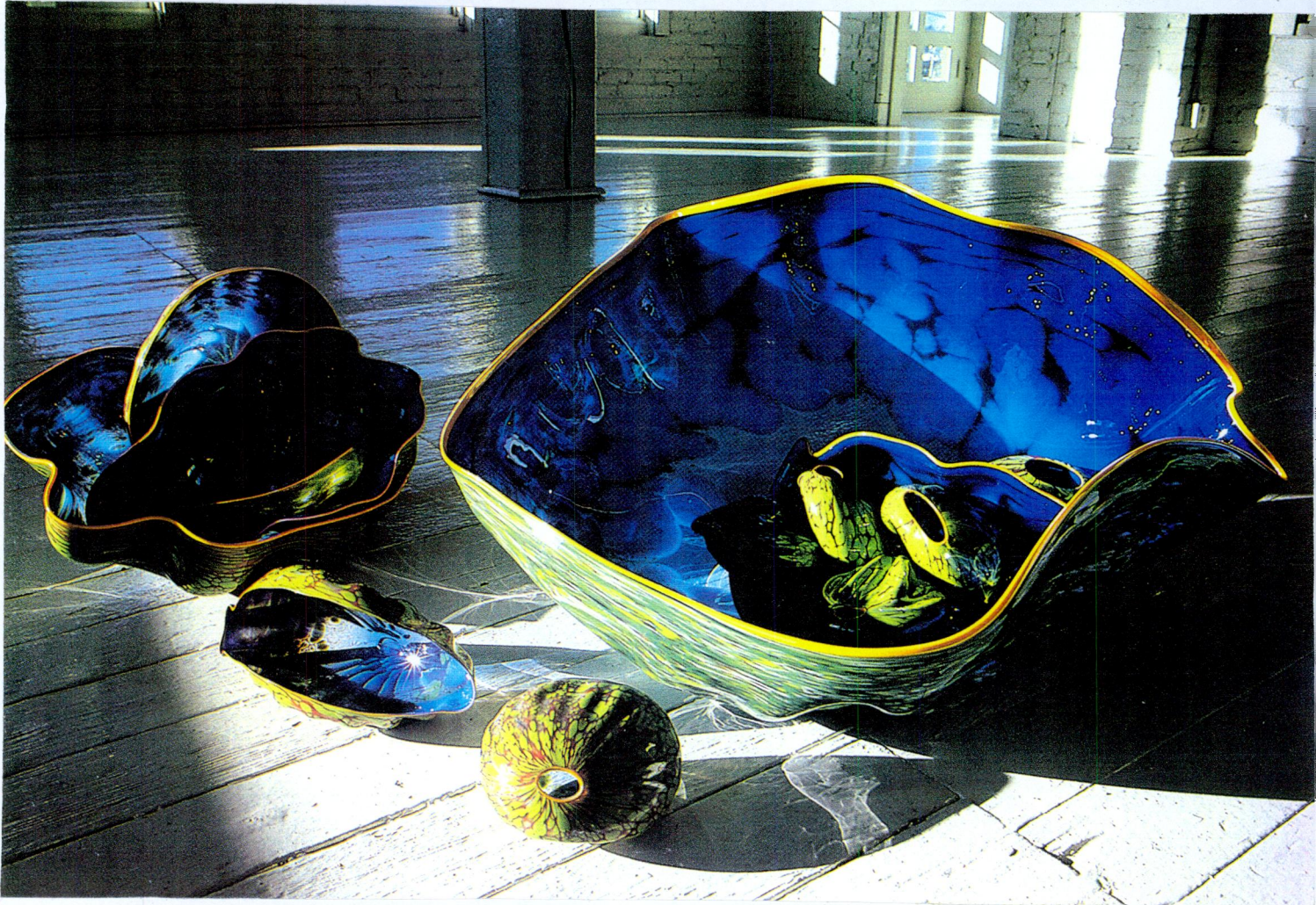
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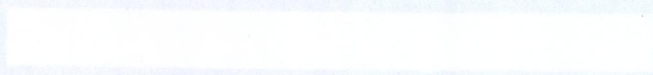


12 (fig 12) Chihuly, 'Macchia'





13 (fig 13) Chihuly, 'Macchia'





14 (fig 14, 15,16) Chihuly, ' Venetians'





(Fig 15)



(Fig 16)



Chihuly's work is a reflection on today's society, the same can be said for the work of William Morris, who equally reflects our society. Everything in life is so transient, a fact which many of us are all too aware of.

In Chihuly's later work, there never seems to be enough time. This is particularly true of the work he executed after the Pilchuck Baskets; the 'Sea Forms'. These forms mark his embarkation on transcendancy. Even though time is short, his work, despite their movement, seems to have captured one of life's most valuable assets; he has frozen time in a precious artistic arrangement. (Chihuly, 1984, p 12)

Dale Chihuly's influence on the art world is undeniable and has been a chief instigator in the revolution of contemporary glass. He has achieved this with his burning ambition, foresight, his insatiable desire to develop and experiment with new ideas and techniques. Chihuly with the help of his assistants like William Morris and Flora Mace, has made contemporary glass a new and exciting material of the future.

Chihuly is one of the most widely exhibited and collected glass designers in the world, who has never failed to excite and inspire people in the world with his innovation and imagination, I feel that he has made the way easier for glass artists to follow and develop their own ideas. He has shown that the only limitation of the artist is within the artist. If the artist possesses the imagination and creativity the results are limitless.

* * * * *

1. The first part of the document is a letter from the author to the editor of the journal. The letter discusses the author's interest in the topic and the reasons for writing the paper.

2. The second part of the document is the abstract of the paper. It provides a brief summary of the main findings and conclusions of the study.

3. The third part of the document is the introduction. It sets the context for the study and outlines the objectives and scope of the research.

4. The fourth part of the document is the literature review. It discusses the existing research on the topic and identifies the gaps that the current study aims to address.

5. The fifth part of the document is the methodology. It describes the research design, data collection methods, and the statistical analysis used in the study.

6. The sixth part of the document is the results. It presents the findings of the study, including the main results and any significant differences observed.

7. The seventh part of the document is the discussion. It interprets the results, discusses their implications, and compares them with the findings of other studies in the field.

8. The eighth part of the document is the conclusion. It summarizes the key findings of the study and provides recommendations for future research.

CHAPTER THREE

WILLIAM MORRIS

William Morris is probably one of the most talented and adventurous young glass artists in America today and his technical development has been an extraordinary surprise. In the past five years, Morris has become a master in his own right. His advancements would have been unheard of in American glass, before the pioneering efforts of the students of the legendary Harvey Littleton at the University of Wisconsin. Among these it has been Dale Chihuly whom Morris has been most closely associated.

The base of Williams work originates from the forest and great outdoors. Morris is a hunter whose upbringing had a profound effect on him. He grew up in Carmel, California, where he found in the mountains, ancient American burial sites and picked up artifacts and relics. It was a fascinating area. He also recalls having found arrowheads in the Sierra Mountains. He has always been interested in these sites but not as a collector. It is his intention not to interfere with the sites but merely observe and when he creates his work he does not set out to recreate or imitate it. In Morris's own words, "I would much rather see the objects in their own setting and wonder how they were created. I like the mystery and romance of it". Morris particularly likes the fresh spontaneous response that people have when they see what's there.

As a hunter, he likes to put himself against the elements. It is death and the afterlife that haunt him but by no means in a morbid way. Through Morris's work we too can experience the feeling which Morris himself feels and it is not his intention that his work reflects death or morbidity. He thinks that the bones and relics emulate life as much as the flesh does, because they can define a situation for eternity, where as the flesh lasts only an instant.

Glass itself also serves as a major inspiration to Morris. Morris's total immersion into the material of glass occurred at Pilchuck glass school. The school which Chihuly established but was not until 1978 that Morris and Chihuly first met when Morris as his assistant. (fig 18) He blew on Chihuly's team for eight years and was crucial of his development. While working with Chihuly he began to produce his own work, in 1979, he first vessels can being (see fig 19). The piece is blown and the green and yellow colours are added. He then cases over the glass and adds shards. The shards are made in advance by blowing a bubble of glass and then shattering it into pieces. He then rolls the hot glass over the shards; picking the pieces up. There are also lines that look like cracks in the glass, these are treads of glass (like Chihuly's Pilchuck fibres) which are melted onto the surface. The piece is thin and fragile, with a slimline rim. The vessel is also transparent and equal in colour throughout.

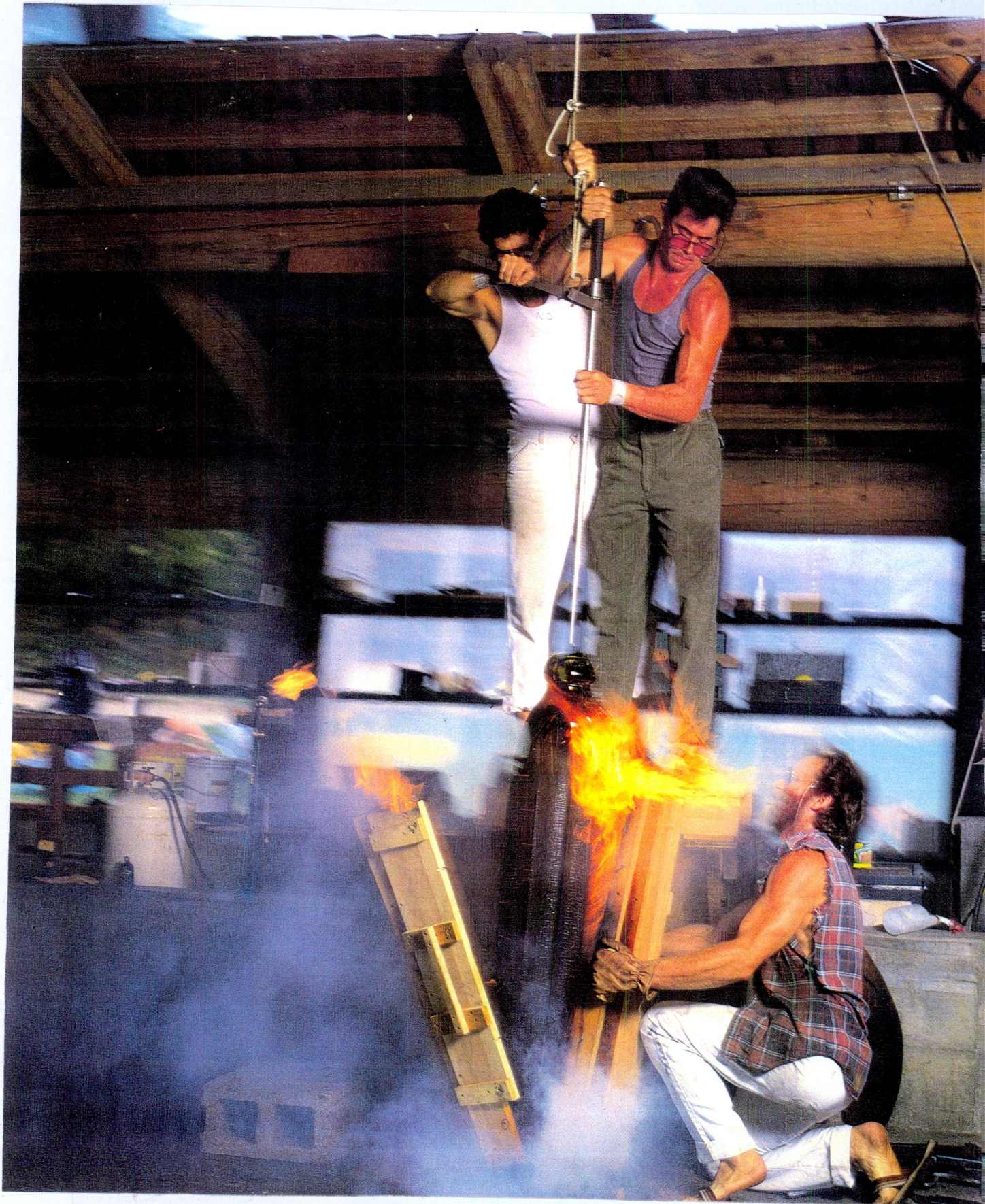
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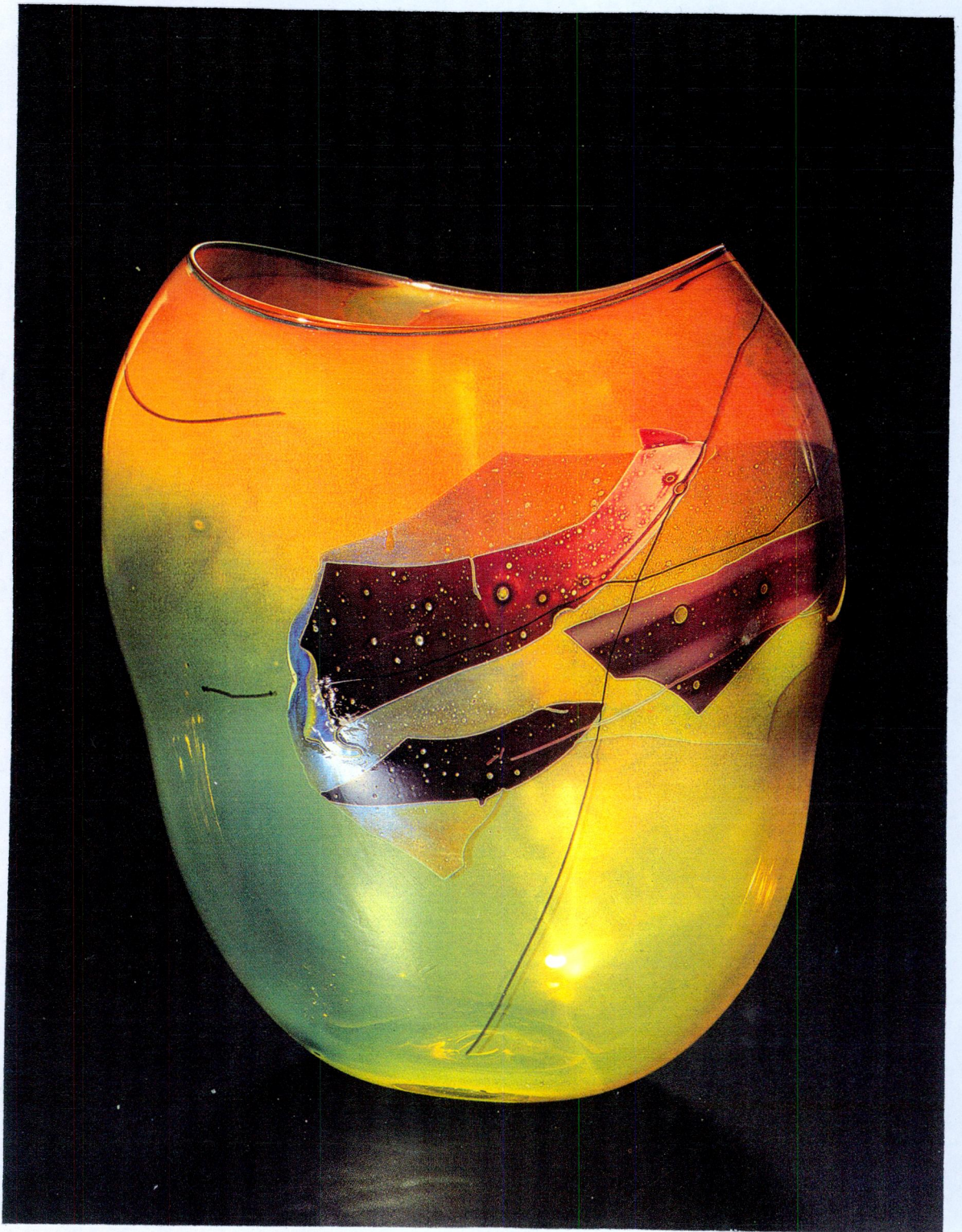
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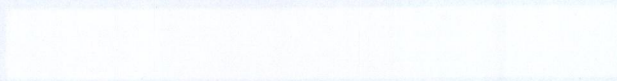
MORRIS WORKING WITH HIS TEAM

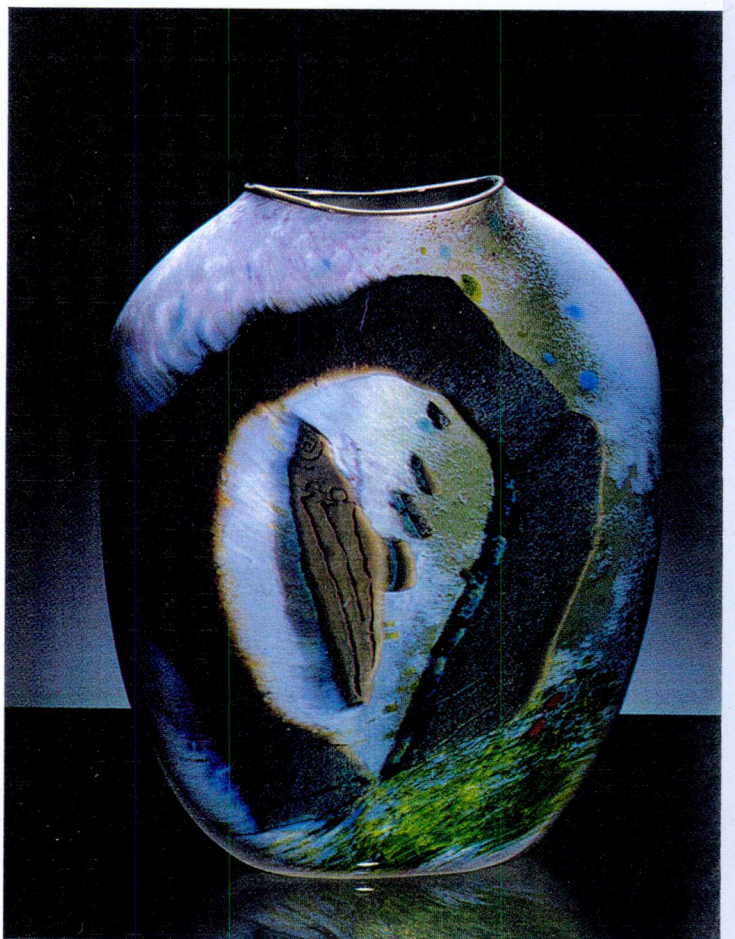
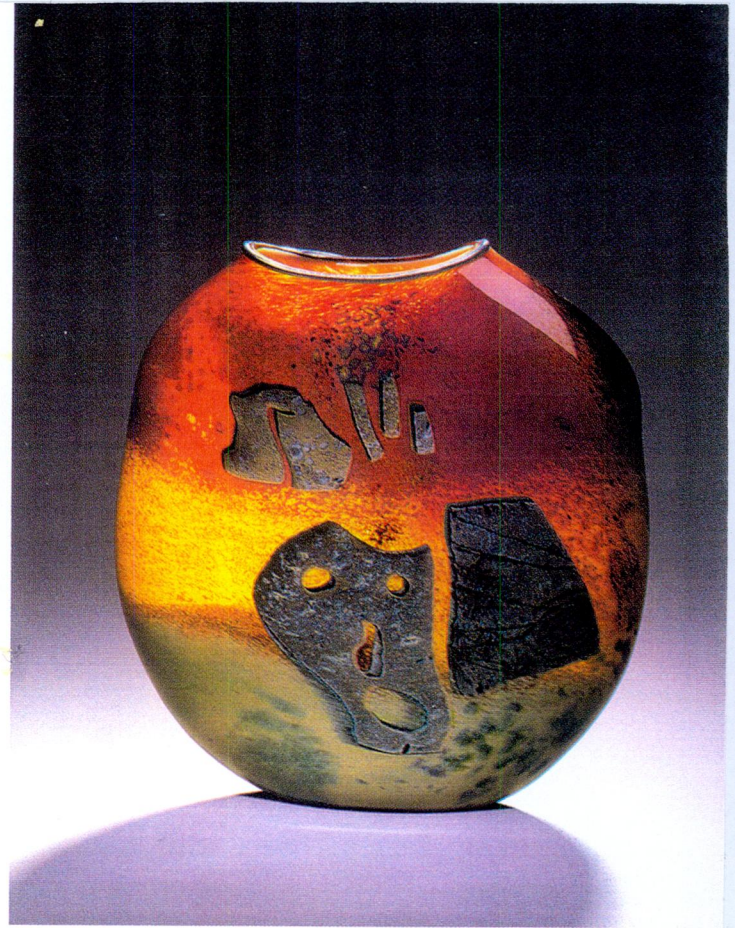
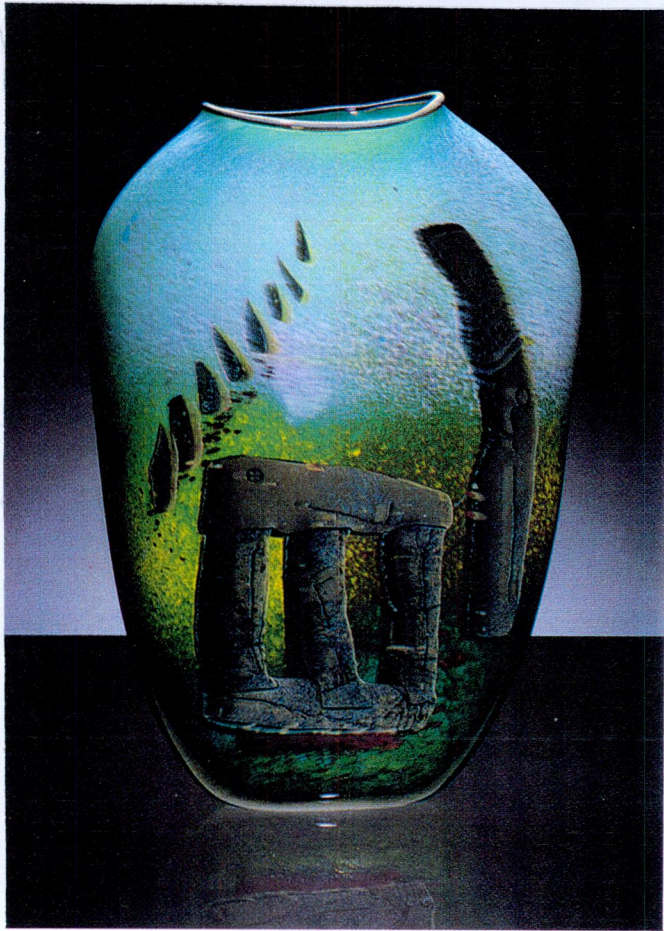


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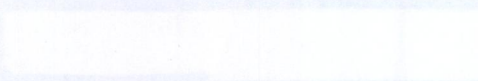


16 (fig 19) Morris, 'roundel vessel'





(Fig 20) stone vessel



Between 1984 and 1986, he made quite a range of work called 'Stone Vessels'. (fig 20) They vary in size from fifteenth to twenty inches in height and up to four and half inches in width. There is greater depth of colour in these vessels and he develops the technique of making shards. The shards he uses have been decorated to a higher degree; they are made to look old and textured as though by time. These pieces of shards, have a prehistoric feeling; enimating from the stone age. They are all simular in size and scale but are different. They are rounded oblong shapes, some are squat and some are elongated. The surface decoration is more than just colour arranged in a pattern. Each piece has an image, remnicant of something from our past.

From 1985, as a direct result of these pieces, his Petroglyph Vessels began to emerge. In these vessels, the imagery has become more apparent. By 1988 the petroglyphs vessels clearly depict ancient scenes. In his work there is recurring attention to cavemen and their painting, dinosaur footsteps and bones. Around 1986, animal and hunting motifs depicting male and female hunters. In the petroglyph; 'Fighting Elks'(see fig 21) he uses stensils to create the images of the elks fighting. The figurative images are silhouetted against his vessel's mottled surfaces. The images assume their form, from within the speckled surface, depicted loosely, like ink blots that assumed shape. The inside of the vessel is opaque cadmine red, which contrasts greatly to the outside. The rim of the vessels is very fine and is rich blue in colour. These contrasts have a striking effect and strenghten the images represented.

By 1988, he was making quite large scale petroglyph vessels ranging between eighteen and twenty-eight inches high. This series is a particular favorite of mine because of the strong contrasting colours, the subdue images and the irregular forms.

Standing Stones and Rocks, 1985-89.

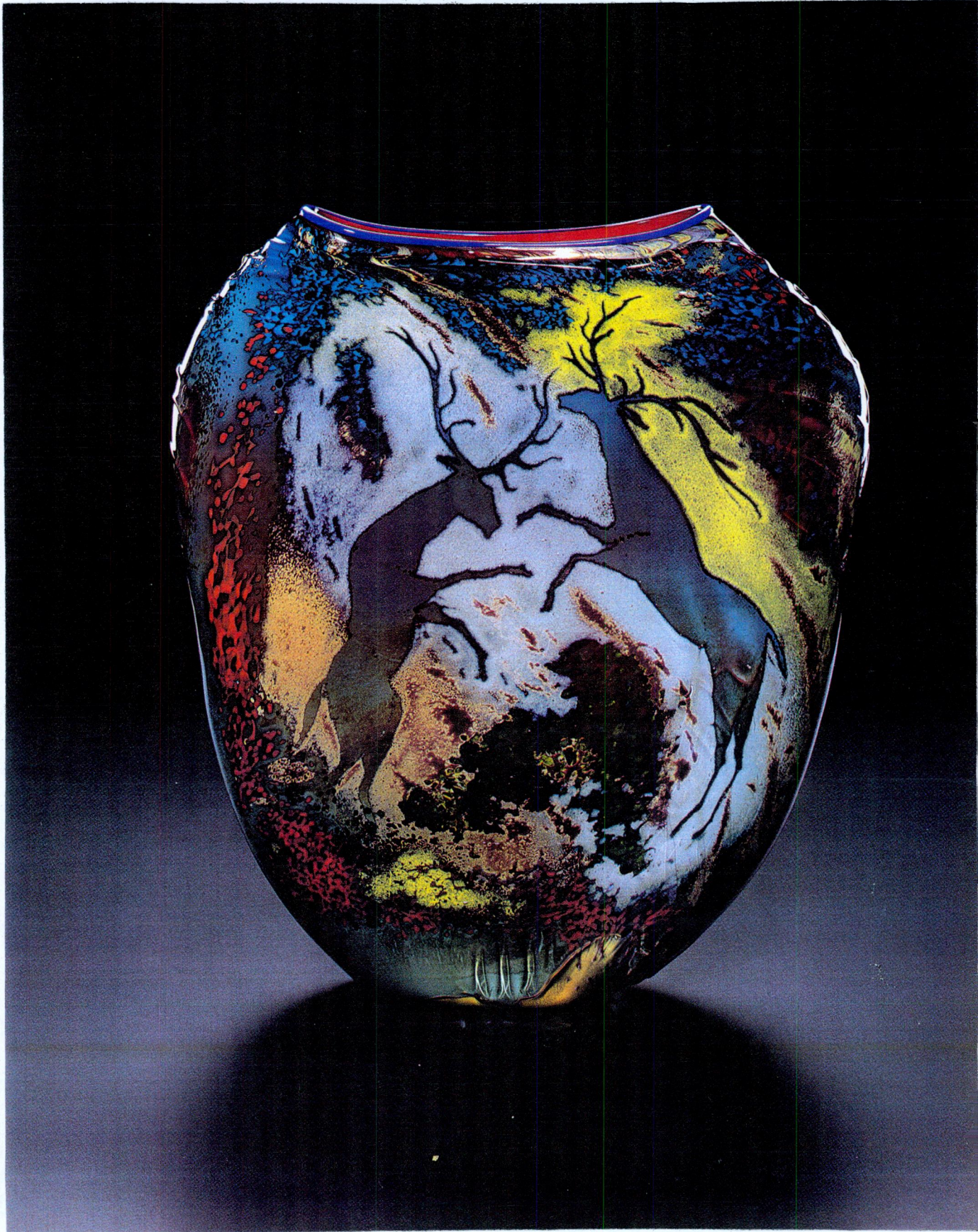
He began working on the 'Standing Stone and Rock series in 1985. The Rocks are not blown forms , they are worked by hand with tools. They are flat, irregular, glistening forms.(see fig 22) These rocks remind me of the stones at Bray sea shore (Co.Wicklow). They appear to be soft and the patterns seem to come from within as opposed to been put on. They look rocks on a sea shore that have been woren away by the sea for hundreds of years. His later series of rocks, have much more translucent qualities. (see fig 23) They resemble stones in water as opposed to dry stones on a beach (different texture). He achieves this by encasing the subtle aqua colours in thick rippling clear glass.

1950-1951 and 1952. The data on these periods of work is as follows: 1950-1951: 100% of the total work was done in the field. 1952: 100% of the total work was done in the field. The data on these periods of work is as follows: 1950-1951: 100% of the total work was done in the field. 1952: 100% of the total work was done in the field.

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'FIGHTING ELKS' (FIG. 21)



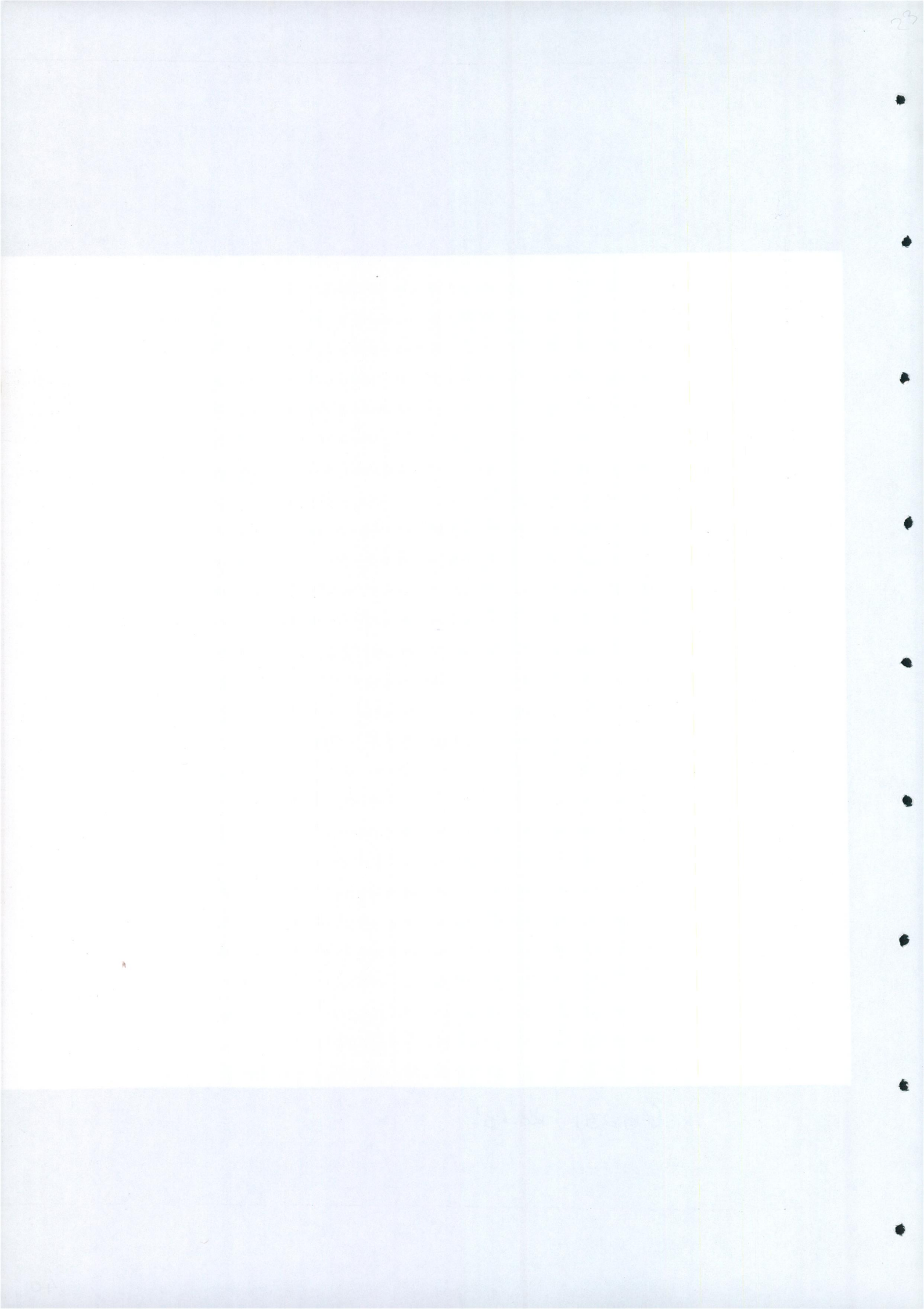


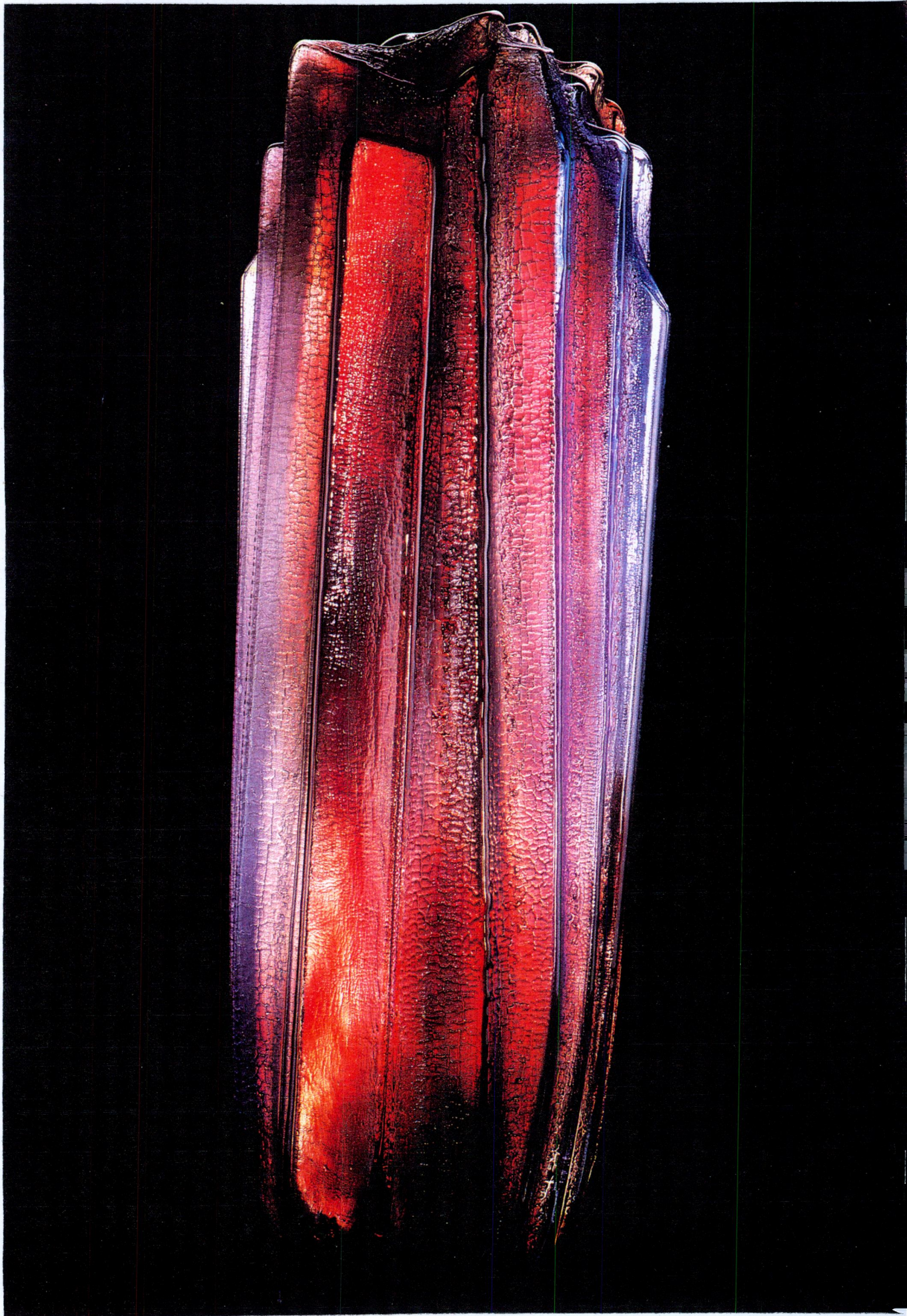
(fig 2a) 'ROCKS'



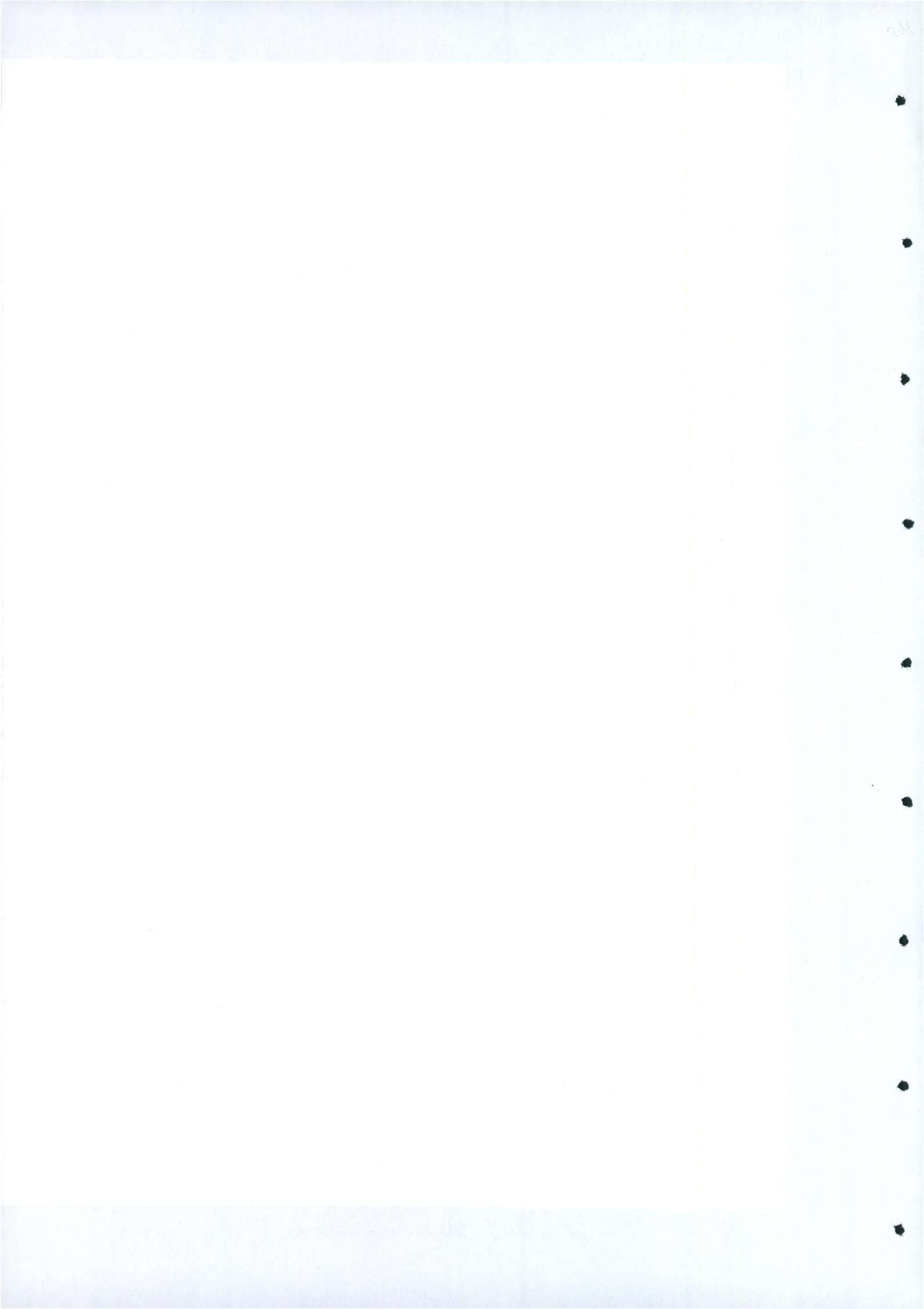


(fig 23) 'Rocks'





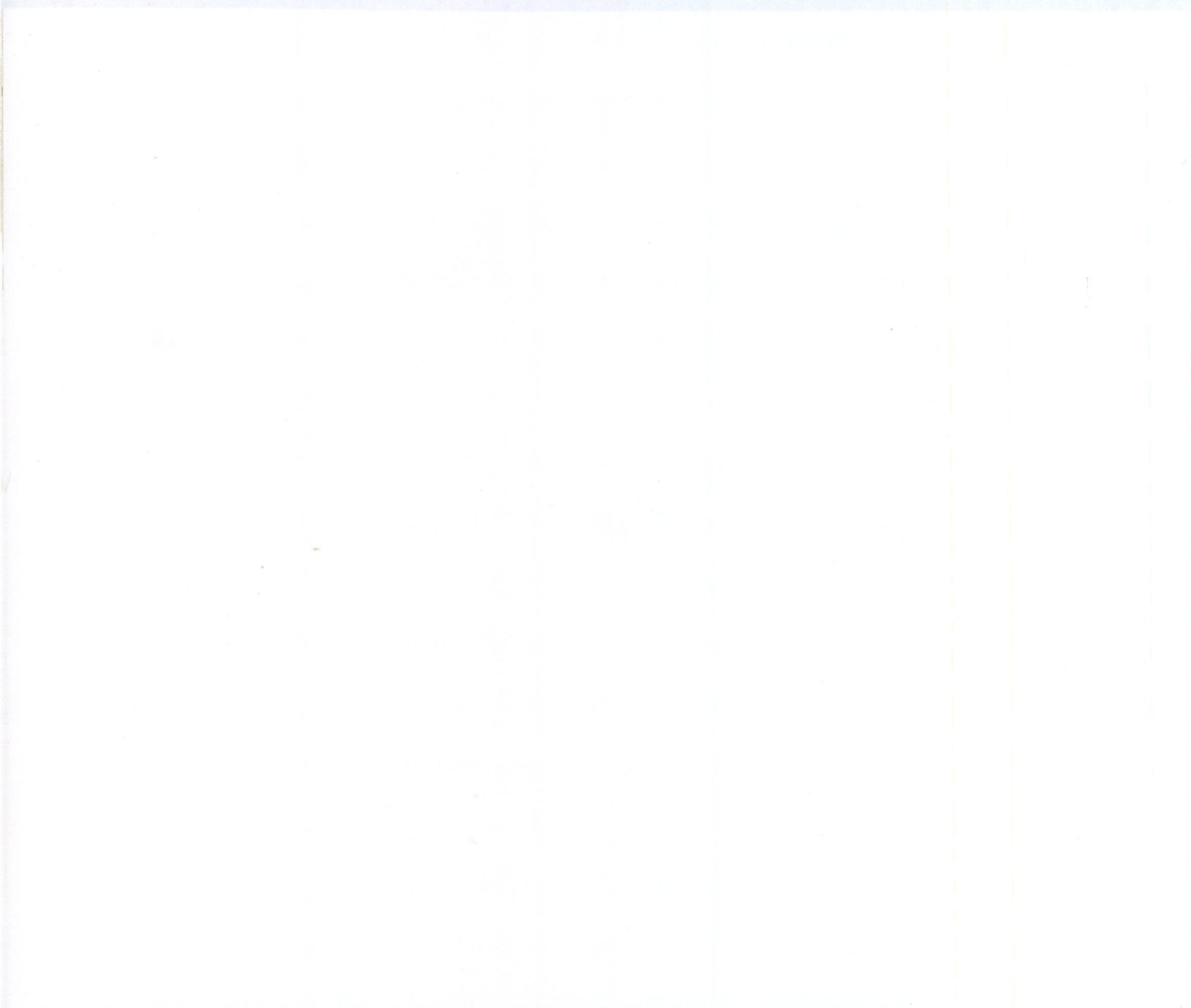
(fig 24) Standing Stone





(fig 25) 'HIMSELF and HIMSELF'

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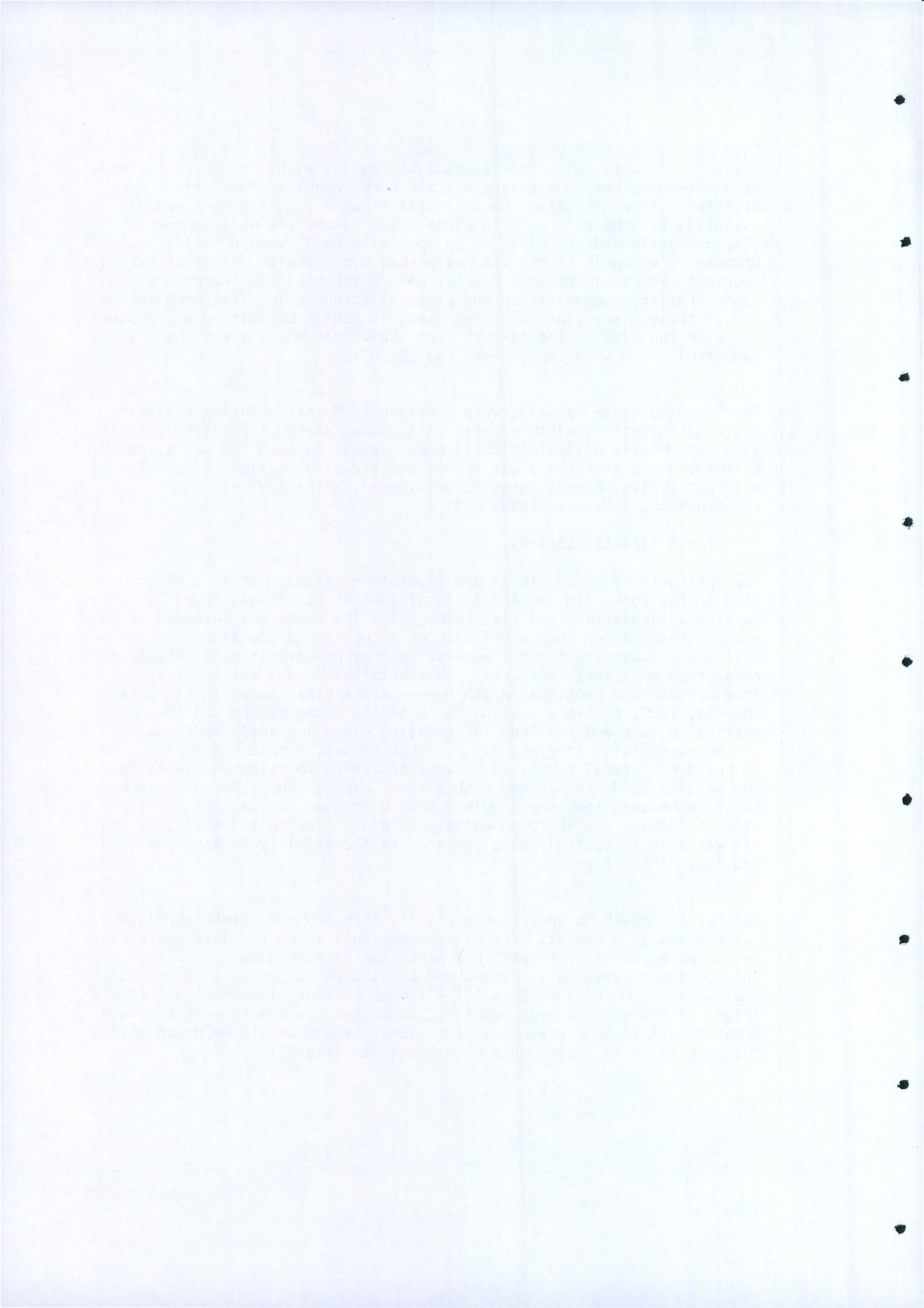
This series which he continued to make until 1989, saw the increasing scale of his work, with some as tall as forty-eight inches and as wide as nineteen inches. These larger scale works required the full assistance from his team. Each assistant had a specific task and was essential for the success of a piece. The pieces are made in one complete unite and are blown in to specially built wooden moulds. Jon Ormbrek, a valuable friend who has worked closely with Morris of over fourteen years, is responsible for making the moulds. Incredible concentration, communication and physical strenght is vital when making one of these pieces. The colour he uses, is subtle but strong and becomes one with the glass. The texture from the wooden mould gives the piece a wonderful chard wood impression. (fig 18,24))

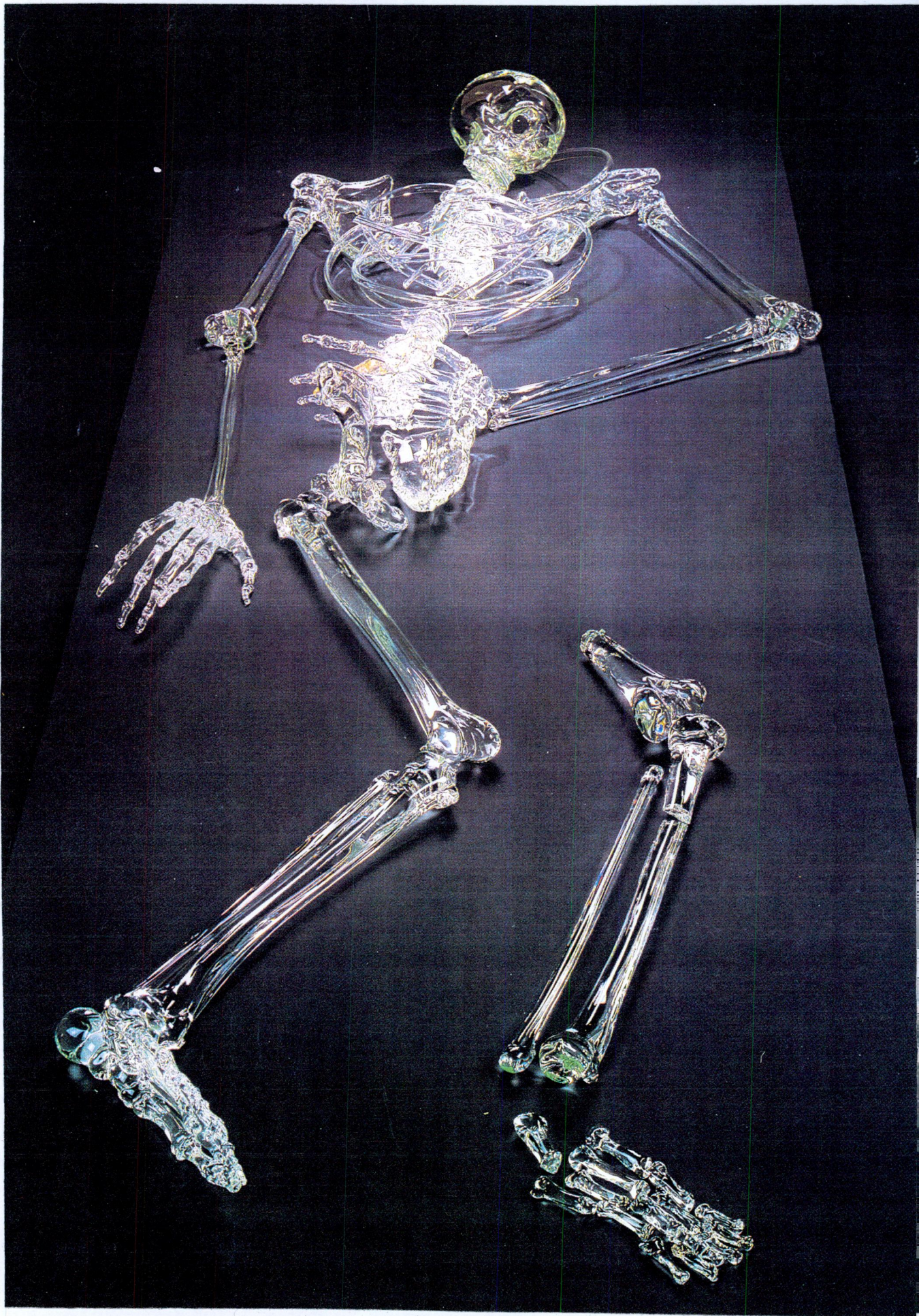
The Standing Stone vessels, were a bridge to Morris actually realising his concerns with sculptural art. After many years of creating vessels in glass, Morris ultimately challenges himself to push the scale, shape, colour and craft of the glass to new and exciting possibilities. In the artifact series, Morris turns to multiboned, archeological constructions. (Morris, 1989, p 4))

The Artifacts, 1988-89.

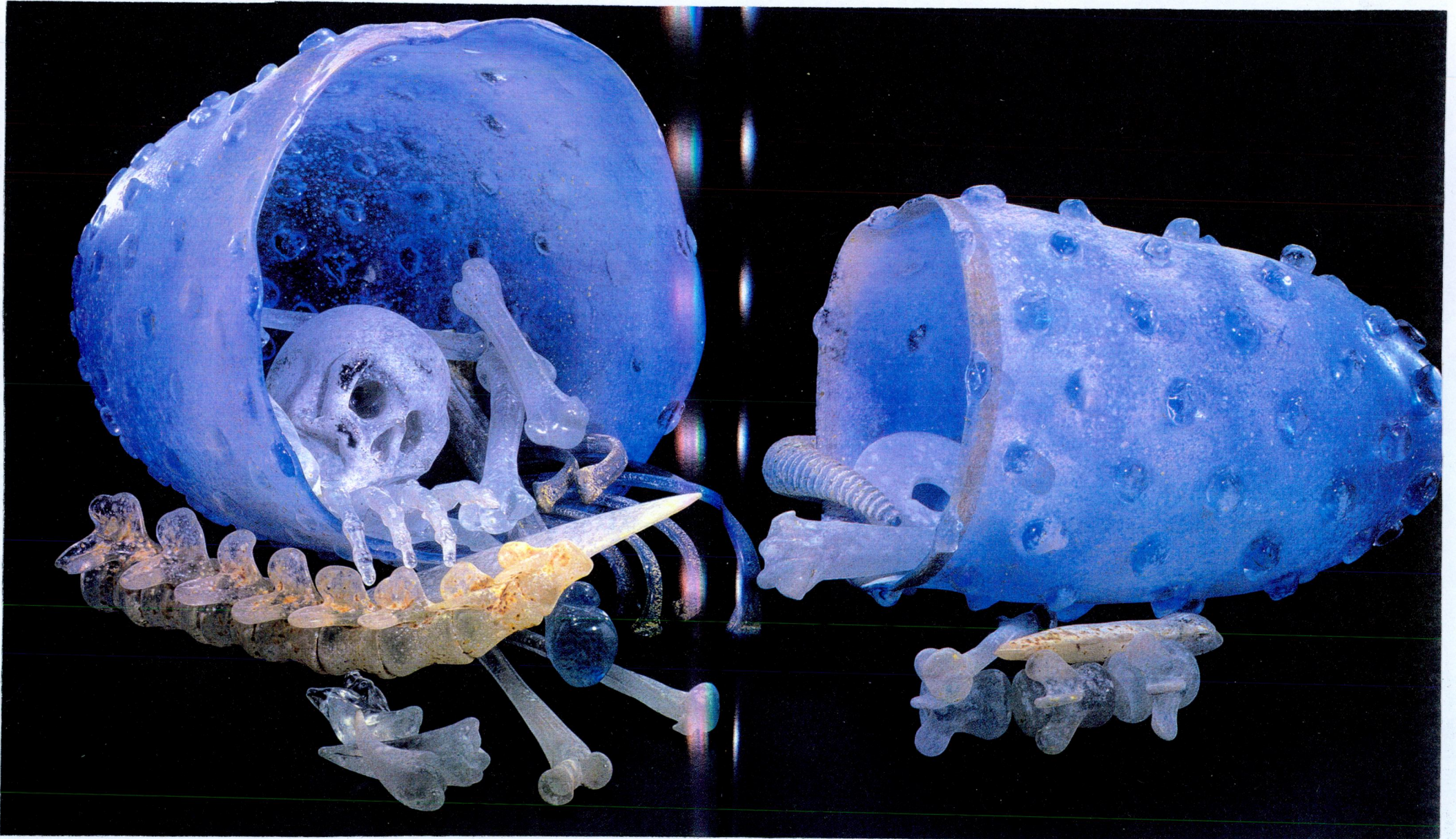
The Artifacts is a sculptural and figurative series. It is a major new step in his work. 'In the Artifacts of 1988-89 Morris has found his darkest articulation'. (Morris, 1988, p 10) The works are intended to be a suggestion rather than a definite or accurate reproduction. Nevertheless despite their inaccuracies they possess as much life if not more, than what they represent. 'His artifact series expresses an intellectual and emotional depth never before experienced in his work. (Morris, 1989, p 8) His fascination with the human figure and the physical allure and challenge of creating glass instantly made subject matter essentially irrelevant. For this series, Morris had to learn how to build sculptural forms, so he went to Venice to watch and learn how the masters in Murano worked with glass. Like Chihuly, Morris absorbed their technique, took the knowlege home with him. It was not until 1988, following his thorough mastery of glass blowing and moulding, that his was able to control the glass and had the ablility to form the hands and feet of his figures.

For Morris, death is appart of our daily live and not something distant. 'Each scene is a reality from his unconscious, an un resolved mystery. In his more recent work death has never looked more glamorous, with shining and glistening skeletons and bones with images so alluring and ambiguous'. (Morris, 1989, p 13) Although personal I will always find images of bodies strangely haunting, no matter how beautifully they are treated. It is this power over the viewer, the power to be drawn into the work which is the essence of his success. (fig 25)





(fig 26) 'THE HUNTER'



25 (fig 27) Morris, Artifact, 'the burial'

He renders skeletons in glass, in reality they have the ability to survive thousands of years. This lasting fact is something which Morris draws upon. The fragility of the skeletons are redefined by being made in glass. These pieces remind us of just how delicate and brittle our own bones can be. (fig 26) In artifact number three; 'the hunter' the above applies. Also the scale of this piece is quite important, (10x48x122 inches).

The surfaces are seductive and vary in texture, the colours are exquisite and engage the viewer in a most superficial way. With certain works he leaves the task of making the statement to the form itself. The blown vessel forms do not end up cylindrical but are flattened in order to give the artist the space for the imagery. Some of the pieces are massive; one of his recent works is an eight foot high rib-cage. As sculpture, the work forces your attention

Morris uses visual imagery to make a statement. The burial is a wonderful piece (see fig 27). Again this work is fragmented, with connecting pieces. It depicts a blue shell-like cocoon, halved with its insides spilling out. The inside are clusters of bones and skeleton fragments. In the foreground, there are vertebra remains. Inside the left shell is a human skull amongst finger bones and rib bones. The relationship between the placing of the bones is important because it gives the impression that there is a figure inside trying to reach out.

Most of these forms are solid, elongated and sinuous. There is but a bare suggestion of form. Again made in separate components, like his previous work, carefully placed together, to give a very striking image. Morris is essentially dealing with his source material and making a statement which is now capable of doing.

* * * * *

Comparisons in the work of Morris and Chihuly

There are great similarities between Chihuly and Morris. This is especially evident if you compare Chihuly's 'Pilchuck Baskets' 1977-78, to Morris's 'Vessel with shard drawings, 1979. (fig 11) The shape and form are very similar, so too is the colour; subtle and muted. All the forms are transparent and there is no contrasting colour on the inside. The only real difference between the pieces is that Chihuly uses the line to wrap his piece to create a basket texture. However in his later series, the vessels become less textured. It is at this point, that their work is strikingly similar.

The first part of the report deals with the general situation of the country and the position of the various groups. It is followed by a detailed account of the events of the past few years, and a summary of the present state of affairs.

The second part of the report is devoted to a description of the various groups and their activities. It is followed by a detailed account of the events of the past few years, and a summary of the present state of affairs.

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There are also similarities with Chihuly's Pilchuck Cylinders and Morris's Petroglyphs (see fig 11,21) Although the surface decoration is different, the interiors of the vessels, are made in the same way. Both series have strong contrasting opaque colour to the outside and each of the vessels, has contrasting rims(lips). However, Morris keeps the colours the same throughout his series but the technique he uses is the same. Besides this obvious comparison, the pieces are quite different.

Morris's 'standing stones and rocks', are not as complex as Chihuly's sea forms. (fig 23) These pieces do not interact to become one but they are placed together to be seen as one unit. These pieces are not blown either like all of Chihuly's work and the glass used tends to be either opaque or dense. The feeling generated in his work is quite different too, his forms appear strong and not fragile and feminine like Chihuly's. However, the idea of small forms centering around a larger single form, is clearly reminiscent of 'sea forms'.

Chihuly's Macchia is quite different from anything Morris has done. The form is a development from the sea form but the daring use of colour transforms the pieces.(fig 13) Like the Pilchuck Cylinders, the inside strongly contrast the outside. These pieces have great movement, a similar movement cannot be found in Morris's work.

Chihuly's Venetians and Morris's Artifact mark the departure of the two, into new directions. The styles of work are completely contrasting. Both men are equally conveying their personal messages in their own unique fashion. As Morris uses visual imagery, his message is more apparent were as Chihuly's is less obvious. If one knew nothing of Chihuly's fascination with Venice, one would think that the Venetian series was just an elaborate series of vessels, reminiscent of Venetian style glass. However not all Morris's work makes a statement, although the images are strong, it is not necessarily the case to read a meaning into the work.

Chihuly and Morris have both contributed greatly to the studio glass movement in America and worldwide. Chihuly in particular has made such an impression on the world at large. The true extent of his influence is unknown, if it were, I'm sure it would be extraordinary. But one man we know he has helped is William, Bill Morris. Morris is now apart of a new age of artists, using glass to reach people with his ideas and dreams.

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Conclusion

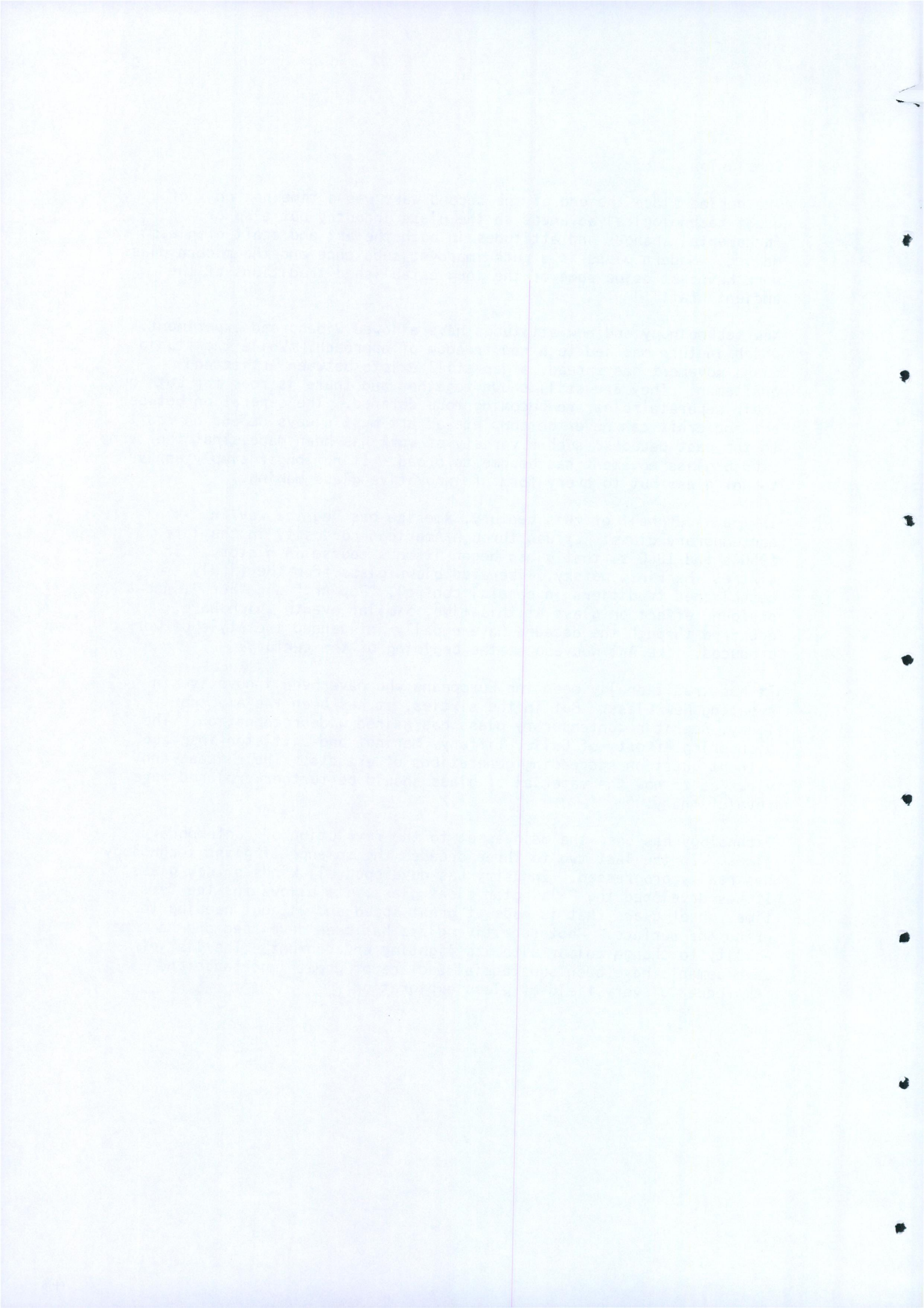
The period since the end of the second war, was a time not only of great technological advances in the glass industry but also of fundamental changes and attitudes in both the art and craft of glass making. Modern glass is a much improved substance and the modern glass work has cast aside some of the long established traditions of the ancient craft.

New technology and new attitudes have allowed widespread experiment, which in turn has led to a new freedom of approach. While the studio glass movement has spread, a gap still exists between artist and craftsman. They are still shown together and there is room for both but their separate roles are becoming more defined. The separation between art and craft can never be complete as art must always depend on craft. In the past decades, such a variety of work has been made, that the term studio glass movement has become to broad. It no longer simply applies to hot glass but to every form of innovative glass making.

In the later half of this century, America has led the way in contemporary glass. It was through American curiosity in the late 1950's and 1960's, that glass began its new course in history. In the sixties, Marvin Lipofsky, liberated blown glass from the firmly established traditions in careful control. "Pop Art" and "Funk", had a profound effect on glass at this time. Similar events which have occurred through the decades have equally influenced the style of work produced, like Art Nouveau at the beginning of the century.

It has traditionally been the Europeans who have been innovative in creating New Glass. But in the sixties, it has been the Americans. Today, American contemporary glass has gained wide recognition. The pioneering efforts of Galle, Tiffany, Marinot and Littleton inspired without question succeeding generations of artists. Their ideas and views as to how the material of glass should be further explored were revolutionary.

Technology has been the main asset to the revolution of contemporary glass. In the last two to three decades the science of glass technology has really progressed. Industry has developed all kinds of new glass. It has developed the Pilkington float glass; its allows for the first time, sheet glass that is made at great speed and without needing to grind the surface. Photosensitive glass has been developed and has the ability to change colour with its lighting environment. The list of developments have been substantial and are of great importance and relevance to every field of glass exploration.



Dale Chihuly and Bill Morris have both made great contributions to the development of contemporary glass. They have had particular impact and influence in their own country, although Chihuly's work is renowned worldwide. By tracing their personal history and their evolving careers, I have shown how valuable their work has been. Chihuly in particular in his time, has produced work which has had a profound effect on the studio glass movement. So many artists became directly involved with glass because through his work, they realised it's endless potential.

In the history of American studio glass it has been the Museums that have helped establish contemporary glass. With their willingness and support, they have brought contemporary glass into our lives. The Corning Museum of Glass has been a major contributor to establishing American Studio Glass. It has been directly involved in exhibiting and publishing the work of Chihuly and Morris. These men are only two amongst thousands of artists, men and women, who dedicate their lives to the exploration of glass. It is a material which has been with us for over five thousand years and is still only in its infancy.

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APPENDICES

Acid etching :Decorative technique, which involves applying acid on glass to etch a pattern.

Annealing : The process of gradually cooling a piece of glass at a uniform rate, preventing stress within the glass.

Blowing : Process of blowing air through a pipe in order to shape the glass

Blow-pipe : The tool which he uses to blow the glass with.

Cameo : Two or more layers of cased glass in two or more colours, the outer layer is carved on a wheel.

Cased : Glass made with two or more layers of coloured glass.
(Produced by the Romans, later England)

Casting : Glass put into moulds to make a form.

Cristallo : Italian soda glass, developed around the 14th century

Enamel : Glass powder, used like painter which is long lasting.

Gaffer : The head glass maker of a team of glass makers.

Gather : A blob of molten glass which is formed on the end of a blowing iron.

Lattimo : Opaque white glass.

Lehr : The annealing oven.

Marver : An iron table on which a gather is rolled into an even shape.

Moulded glass : Blown glass ornamented or given its final body of shape by the use of moulds.

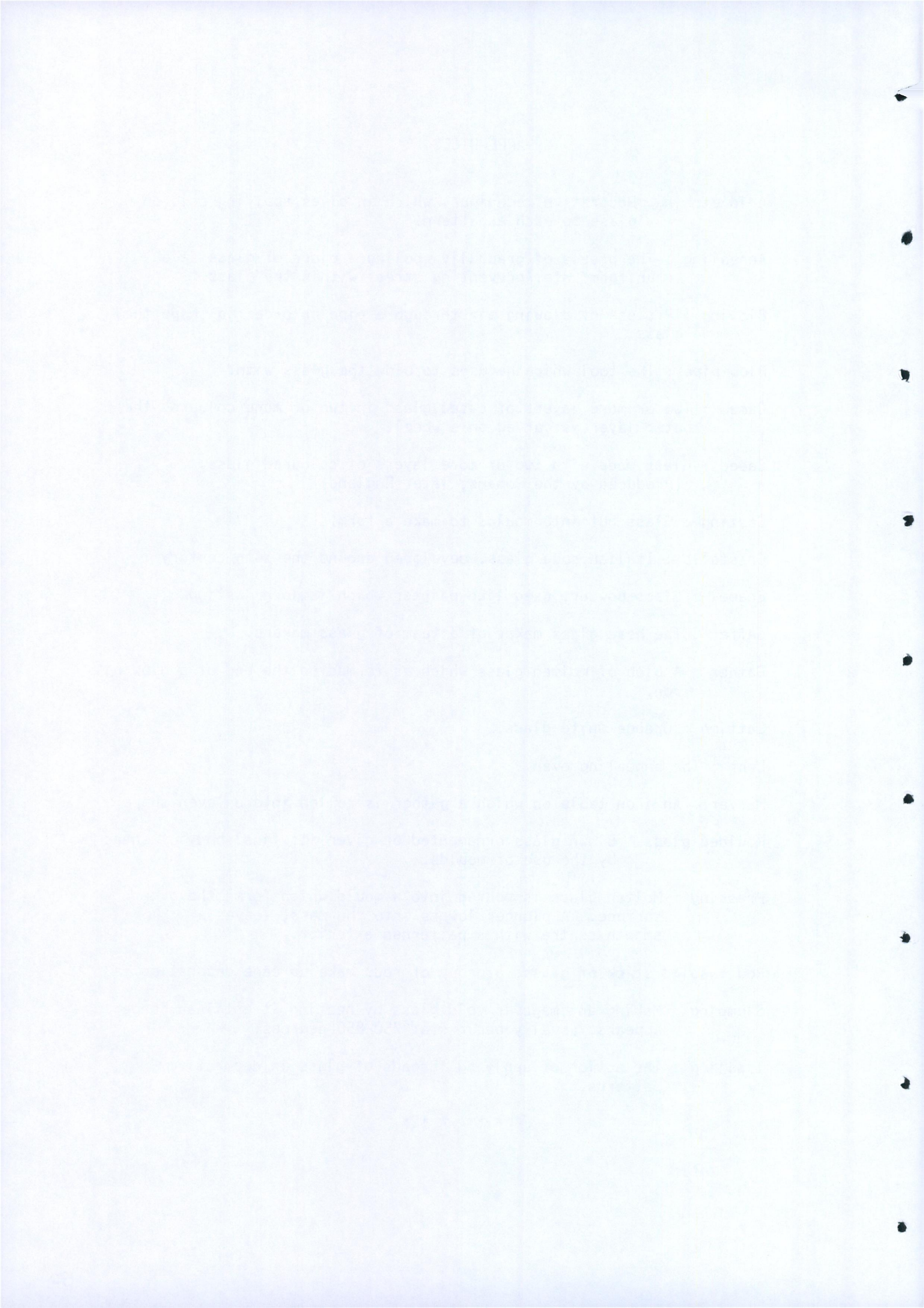
Pressing : Molten glass is poured into a mould which forms the outer surface. A plunger lowers into the mass, leaves a smooth centre with a patterned exterior.

Rod : solid stick of glass; a group of rods make up cane decoration.

Slumping : Making an image in cold glass by heating it until an image appears, usually occurs at 750-850 degrees.

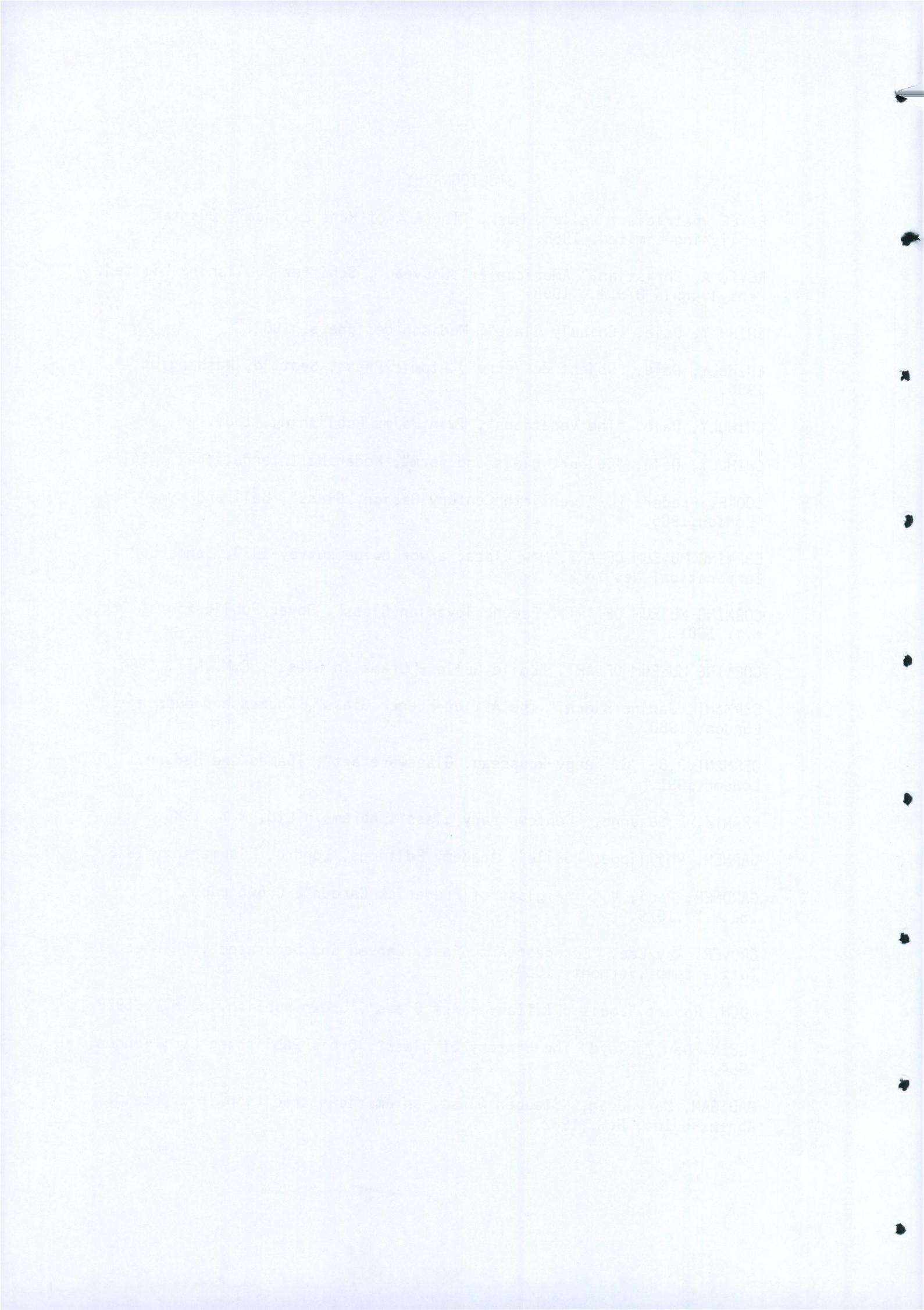
Trailing : The action of applying threads of glass in decorative patterns.

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