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‘Inside Painting’, as used for Chinese snuff bottles, suggested as a new model for contemporary glass art

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A thesis submitted in partial fulfillment of the
requirements of the University of Sunderland for the
degree of Doctor of Philosophy

October 2016

‘Inside Painting’ , as used for Chinese snuff bottles , suggested as a new model for contemporary glass art

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Abstract

This research has been an art-based practice-led project focused on Chinese „inside painting“ in glass art. It has attempted to create a „new model“ for Chinese traditional inside painting through the creation of contemporary glass artworks. This is timely because Chinese academic glass teaching is emerging in universities, and cast glass techniques dominate the curriculum. The research offers an example of how traditional methods might be revitalized by one artist to extend the options for Chinese University glass teaching. Potential recipients are glass artists and students as well as curators and collectors.

This research mainly used studio-based art practices, inspired by traditional inside painting of Chinese snuff bottles, traditional Chinese painting and calligraphy, influenced by Taoism, together with Western glass painting, printing and calligraphy in order to reduce some of the existing limitations of traditional methods.

The methods of glass making for this research covered blowing, casting, flame work, fusing, slumping, incorporating „outside“ painting combined with „inside“ painting, and printing combined with inside painting.

Traditional inside painting techniques have developed over more than 200 years into a popular form of Chinese folk art, often based on glass snuff bottles with painted decoration on the inside. The craftsmen who make these pieces usually pay more attention to inside painting skills and overlook their own artistic expression. The designs used tend to be repetitive and copies of existing designs from other media such as ink painting or photographs. In this research, a body of inside painted glass works was produced to show how the glass form and painted content were combined. This work also helped to establish possible ways to reduce the limitations of traditional inside painting of Chinese snuff bottles.

Contextual aspects were supported by study visits to key collections and conferences, and interviews with other makers and collectors. It is hoped that this research will promote the development of traditional inside painting and lead to inside glass painting developing as a strand of the contemporary Chinese glass arts.

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I List of practical works submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy at the University of Sunderland

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Pregnant I

Cast glass, hollowed inside, inside painting, 25x15x12 cm, 2015.

Pregnant II

Cast glass, hollowed inside, inside painting, 25x15x12 cm, 2015.

Girl

Cast glass, hollowed inside, inside painting, 25cmx 20cmx 12cm, 2015.

Love in nature,

Cast glass, hollowed inside, inside painting, 20cmx 15 cm x 10cm, 2015.

Waiting

Blown glass, inside painting, H. 45cm, 2015.

Pregnant

Blown glass, inside painting, 35cm x25cm x20cm, 2014.

Seasons

Blown glass, inside painting, acrylic, 30cm x 20cm x 20cm (Each), 2015.

Clothes

Blown glass, acrylic inside painting, 25cm x 22cm x18cm, 2015.

Red Heart

Flame worked glass, inside painting, 5cmx 4cm x 3cm, 2015.

Cloud,

Flame worked glass, inside painting, 5cm x 3cm x 3cm, 2015

Landscape

Fused glass ware, on-glaze inside painting, 20cmx 8cm x8cm, 2013.

Collapse

Fused glass ware, on-glaze inside calligraphy, 8cm x 15cm x 7cm, 2013.

Worship

Slumped glass, reverse painting, 25cm x 15cm x 15cm, 2013.

Lake

Slumped glass, reverse painting, 15cm x 20cm x 20cm, 2013.

Roar

Blown glass, slumped, inside painting, 5cm x 44cm x 15cm, 2013.

Scene In Scene,

Blown glass, slumped, outside and inside painting, 10cm x 6cm x 5cm, 2014.

Bridge,

Blown glass, outside and inside painting, 25cm x 7cm x 7cm, 2014.

Kissing

Blown glass, acrylic, outside and inside painting, glass bottle, 15cm x 4cm x 4cm, 2014.

Love In Silence

Flame worked glass, inside painting, 10cm x 5cm x 4cm, 2016.

Dragon & Phoenix I

Blown glass, silk-screen printing, inside painting with Chinese pigment, 30cm x 12cm x 12cm, 2016.

Dragon & Phoenix II

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V Author Declaration

According to the regulations, I declare that during this research I was not registered for any other degree. Material for this thesis has not been used by myself for another academic award.

VI Acknowledgements

I would like to thank the University of Sunderland for the opportunity to complete my PhD. I would especially like to thank my Director of Studies Professor Kevin Petrie, and co-supervisor Dr. Manny Ling, for their patient guidance throughout the whole process of research.

Various University members of staff have provided assistance to my research, notably Tim Betterton and James Maskrey.

Thanks are also given to the Swedish glass artists Bertil Vallien and Ulrica Hydman-Vallien, the American glass artist Cappy Thompson and the Czech glass artist Dana Zamecnikova for their advice and appreciation of my research aspirations. During this research, the curator of Wang Xisan Inside Painting Museum, Ziyong Wang (王自勇), inside painter Zenglou Zhang (張增樓) and Luhua Zhang (張路華), afforded many opportunities for the collection of reference information. Also, many thanks are given to Chinese glass artists and educators, Han Xi (韓熙), Donghai Guan (關東海), Jiangtao Zheng (鄭江濤), Xiaoshu Luo (羅小戌), Jinlong Xu (許金龍) and Jin Qu (屈金) for their support in the questionnaire survey.

Jingtian Chen (陳京田), the Director of the Boshan Zhenhua Glass Factory in China, and the glass blower Changxing Xing (邢長興) in this factory offered their help in the glass-making carried out in this research.

Thanks also to Dr. Malcolm Inman for his kindness in proof-reading this thesis and for his useful advice.

My parents-in-law, family, relatives and friends, gave me much emotional and financial support. I would especially like to thank my wife, Dian Shi (時典), for her warm encouragement, trust and selfless love during the research.

Chapter 1– Introduction

Chapter 1 introduces the research field, including the personal background of the researcher and the historical background of inside painting of snuff bottles. It covers the development and formative foundation of traditional Chinese painting, calligraphy and Taoism, contemporary Chinese academic glass teaching, contemporary western glass painting, contemporary western glass printing, and contemporary western calligraphy. This chapter also describes the rationale and the aims of the research. An overview of the research methodology and its objectives is presented, together with a summary of this thesis.

1.1 Personal background to this research

As an artist in China, this researcher has been engaged in the study of sculpture and painting for nearly 20 years and, in 2007, graduated with a Masters degree from the public art department (sculpture) of the Central Academy of Fine Arts in Beijing. During that period I have produced a large number of works and have taken part in public sculpture art designs (Guo, 2012) and in many domestic and foreign art exhibitions (Guo, 2011). The works have been collected in many countries (Guo, 2008). As a senior lecturer in Shan Dong University of Art and Design in China, I teach sculpture and glass courses. Personal research into contemporary glass teaching has also been carried out in recent years: for example, looking at how glass art is developing in China today (Fig. 7). I have practiced oil and ink painting, and calligraphy, for many years. However, I have devoted special attention to the development of contemporary inside painting of Chinese snuff bottles. Some early practice in combining inside painting art with contemporary glass art has previously been carried out and a number of inside painting studios and museums in Beijing, Hengshui and Boshan in China were visited in 2012.

I have given many lectures on the art of inside painting. I also have had discussions with important masters of traditional inside painting, such as Shouben Liu (劉守本), Xisan Wang (王習三), Guangqing Zhang (張廣慶), Yining Lai (賴一寧) and Zenglou

Zhang (張增樓). Similarly I have told to representatives of the new glass movement, such as Yizi Liu (劉藝子) and Luhua Zhang (張路華).

1.2 Historical background

1.2.1 The snuff bottle, inside painting, traditional Chinese painting, calligraphy and Taoism

In the 14th century, Italians chose the finest tobacco leaves which, when mixed with menthol and borneol medicinal materials, and left to age for many years, were then ground into a powder: „snuff“ (Yuan, 2007). Snuff became popular in Europe from the early 17th century and was subsequently introduced into the northeast of China for medicinal purposes. The little Chinese „snuff bottle“ was developed from the European „snuffbox“ (Fig. 1), could be held in the hand conveniently and was easy to carry (Zhu & Xia, 1988). Initially the snuff bottle was fashionable in the Chinese upper social class but subsequently the use of snuff became widespread in Chinese society.

The Chinese snuff bottle absorbed the techniques of the Western snuffbox, and represented an object which could integrate Chinese and foreign culture and art (Shi, 2003). The production of the snuff bottle in China peaked during the 18th century (Zhu & Xia, 1988) (Fig. 2).



Fig. 1: Frederick de Veer (1731-1781) *Squirrel Tails*,
Snuff box, ceramic, golden foil, W 7.3cm, George II of Great Britain.



Fig. 2: *Immortals At Play in A Garden*, black and white
nephrite, carved, Suzhou, 18th-19th century. *Journal of the
International Chinese Snuff Bottle Society*, Winter 2013.

The art of inside painting of Chinese snuff bottles is believed to have begun in the early 19th century (Liu, 2011). Special tools and transparent bottles were developed so that calligraphy, natural scenes and landscapes, flowers or wildlife could be painted in miniature and in reverse on the inside walls of the bottle. The inside glass wall of

these bottles had to be frosted by sandblasting before paint was applied to them in order to provide a stable surface. The applied colors were usually Chinese pigment, watercolors, acrylic and oil paint. Currently, most of the Chinese inside painters employ Chinese pigment in their inside paintings (ibid.).

After more than two hundred years of development, it can be said that the existing forms of inside painting are mature and exquisite, but that the imagery depicted is rather repetitive and usually based on an existing ink painting (ibid.). For example, the ink painting of *Qing Ming Shang He Tu* (清明上河圖), painted by Zeduan Zhang (張擇端) (Song Dynasty, 960-1279), is represented, or even copied, in a contemporary snuff bottle (Fig. 3 & 4, below).

The techniques employed during inside painting of Chinese snuff bottles were subsequently developed, but relied upon classical Chinese images, inspired by the natural world, and calligraphy for the subject matter. However, there was and is great scope for the development of traditional Chinese snuff bottles in contemporary society (Liu, 2011).



Fig. 3: Zeduan Zhang (1085-1145)
***Qing Ming Shang He Tu*,**
Chinese painting (Part), 25.2cm x 528.7cm
(original painting), Song Dynasty (960-1279)



Fig. 4: Liwang Liu
***Qing Ming Shang He Tu*,**
glass snuff bottle, inside painting,
13cm x 11.5cm, 1992.

Traditional inside painters usually practice intensively in Chinese painting onto paper, because inside painting methods are similar to paper painting. Taoism is the guiding

thought of Chinese painting and calligraphy (Sze, 1957) and inside paintings are always accompanied by calligraphy. Traditional Chinese calligraphy (書法) is the technique of Chinese writing. It is said by Chinese theorists that calligraphy was looked upon as a form of art during the East Han Dynasty (25-220 A.D.). *"Calligraphy is more than beautiful writing"* (Gaur, 1994, p.19). Actually, Chinese calligraphy is a very important part of Chinese traditional culture. *"Calligraphy is to a large extent an expression of harmony, as perceived by a particular civilization. The calligrapher is in harmony with his script, his tools, the text and his own spiritual heritage"* (ibid.). Calligraphy and painting has the homological source in the Chinese words: „書畫同源“.

It refers to Chinese calligraphy and painting in terms of form, especially as the ink and brush are used in each method in the same way (see 2.1.1). The approach of how the brush is used in calligraphy is the foundation of Chinese painting. *"Not only does the calligrapher use the same tools as the painter, they both abide by the same aesthetic principles"* (Gaur, 1994, p.108). Thus, traditional Chinese painting itself is strongly characteristic of calligraphy, and painting in lines and ink display the beauty of abstraction.

Taoism (see 2.1.3) has been one of the dominant philosophical thoughts in China for nearly 3000 years. *"The concept expressed by the character Tao is one of the oldest in Chinese thought. It has been shared by all the schools, with variants of interpretation"* (Sze, 1957, p.11). In the developing process of Chinese traditional culture, Taoism essentially performed a function of guidance for the governing powers. It also guided the development of the Chinese crafts art. *"Tao was the touchstone of Chinese painting which affected the creative imagination, the subject matter and the interpretation"* (Rowley, 1959, p.5). Taoism advocates the harmony between nature and the human being. Chinese artists are willing to follow this idea in their artistic actions. *"The Chinese artist sought harmony with the universe by communion with all things"* (ibid.). „Yin“ (陰) and „Yang“ (陽) is the principal concept of

Taoism. „Yin“ and „Yang“ refers to the opposite things in the nature: for example, the heaven and earth, sun and moon, day and night, hot and cold, male and female, up and down, positive and negative. It is the origin of movement in the universe. If the

„Yin“ and „Yang“ is in balance, everything will move in its natural way. The harmony idea in Taoism guides Chinese people in almost everything they are involved in. For Chinese painters, Tao is their painting guideline. *“In the vast literature of Chinese painting, there is continual reference to a Tao or „way“. It is not a personal way, nor the mannerisms of a school. It is the traditional Chinese Tao”* (Sze, 1957, p.3).

1.2.2 Contemporary Chinese university glass teaching

Recent developments have seen Chinese students graduated in „glass“ in the UK and returned to China as university teachers. For example, both Xiaowei Zhuang (莊小蔚) from the University of Wolverhampton (2000) and Donghai Guan (關東海), M.A. from the University of Wolverhampton (2003) and PhD from the University of Sunderland (2013), Xue Lu (薛呂), PhD, from the University of Wolverhampton (2009), and Yi Peng (彭怡), PhD, from the University of Sunderland (2014). Their method of teaching in China generally begins with kiln-casting glass techniques – largely because this was a strength at the University of Wolverhampton where several studied.

Although Tsinghua University currently does have some glass blowing and mosaic glass courses, and the China Institute of Fine Arts began a blowing glass course in December, 2015, and Dr Yi Peng taught three-week flame glass courses in the Tianjin Institute of Fine Arts in 2015. „Kiln-casting“ remains the main glass method that is taught in universities in China. No surface glass painting or inside painting is taught (see Appendix 6). So this research expands the potential of creative glass work as a subject in Chinese university glass teaching.

1.2.3 Contemporary Western glass painting, glass printing and Western calligraphy

These topics are referred to in this research context in order to compare them with traditional Chinese inside painting, and consider if Western techniques in art making and the freedom in the creation of ideas help to identify the limitations of traditional Chinese inside painting.

Contemporary Western „on-glass“ painting emerged from the studio glass art movement in the 1960s (see 2.2.1). It is a form of free-hand painting on sheet glass, glassware, and glass sculpture. It is relatively close to the artist's thoughts, feelings and ideas, because the artist directly displays his or her emotions through the painting. The techniques are not complicated: the artist merely uses brushes and enamel colors, or other media colors, to paint pictures which express his or her feelings in narrative stories, decorative images, and abstract motifs. Contemporary glass painting artists usually concentrate on the truly personal feelings of expression rather than displaying the technique itself. Compare this to the Chinese traditional inside painter who always focuses on the techniques used. In my opinion, an artist should „immerse“ themselves into the artworks, hence the works have „personality“.

Contemporary Western studio-based printing on glass provides an uncommon opportunity for artists to create their artworks rapidly and conveniently. In the Twentieth-century, the introduction of screen printing to the industry was a major development (Petrie, 2006). Digital printing is now popular in the twenty-first century. *“Traditional print methods used in conjunction with glass remain an area with great potential for creative exploration, especially in the artist's studio”* (Petrie, 2006, p.28). Artists are exploring glass printing research, such as Kevin Petrie (2006), Jeffrey Sarmiento (2011), Kathryn Wightman (2011). This research has applied printing techniques into the technique of inside painting (see 5.9).

In the writing process the calligrapher, through the combining and arranging of words, the balancing of their size and weight, and the use of black and white, could express his or her feelings and ideas (Lach, 2009). *“Calligraphy is often regarded as the purest manifestation of an artist's inner character and level of cultivation, as well as the expression of his soul, thoughts, and feelings.”* (Howard, 2002, front flap). As an example, Western contemporary calligraphy is often used in Peter Furlonger's works (Fig.5, below). In contemporary calligraphy, cross-boundary research is a new concept, and Dr. Manny Ling has extensively used it (Fig. 6). Both examples flexibly applied calligraphy in different materials and writing styles and inspired this research to compare the latter with the traditional inside calligraphy of Chinese snuff bottles in order to change the fixed traditional writing styles. For example, in the section referring

to slumping and fusing practices this research applied calligraphy to the inside painting production (see 5.6).



Fig. 5: Peter Furlonger, *Cylinder Vase*, blown glass, 15cm x 38cm, 1999.

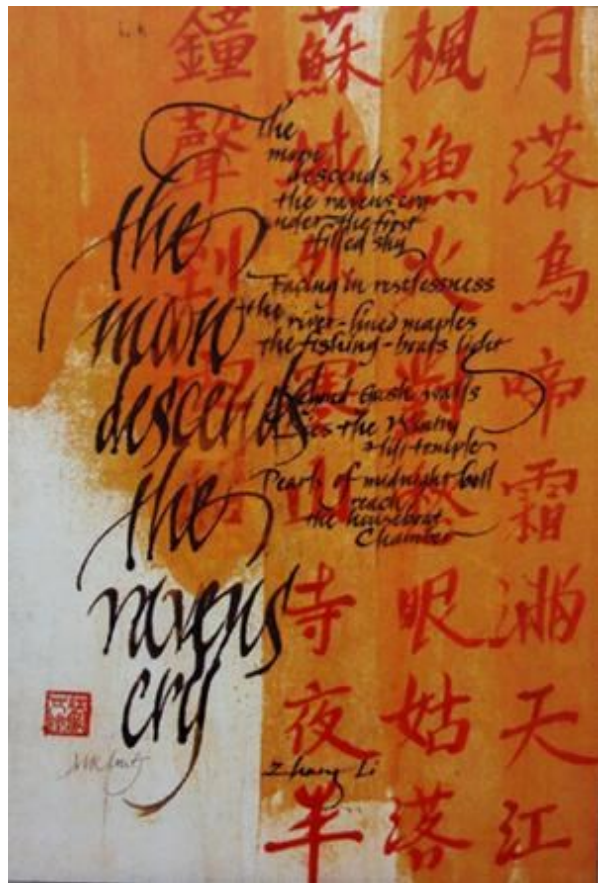


Fig. 6: Manny Ling, *The Moon Descends*, blown traditional Calligraphy, 2000.



Fig. 7: Jianyong Guo, *Run To Future*, kiln-cast glass, 18cm x 35cm x 12cm, 2007.

Taoist thought has a very deep influence on Chinese art and it pays attention to the harmony between humans and nature, „nature and humanity“ is one (Lao, 1999). These concepts are reproduced in the art works by this author, where reducing the surface details holds back personal emotional expression. For example, the techniques of applying „realistic“ methods to sculpture have been attempted. Here, the rigid classical rules of human dimensions have been relaxed. When shaping a figure, all the facial features details and limbs have been removed, leaving the features which show this author's true emotional feelings. How to maximize these emotions and „fuse“ them into personal artworks is the primary drive.

In the sculpture „*Pregnant*“, this author's praise for a mother has been attempted: she will dedicate selfless love to her children, endure the greatest of pain and patience, but she will derive the most satisfaction from the subsequent happiness and joy of her children (Fig. 8).

In the sculpture group *Waiting* (Fig. 9), a waiting process is displayed. Before the coming of a result, the person may experience happiness or suffer helpless agonies,

but he or she has to wait for the ending. The process was a parabolic track: from young to old, from passion to exhaustion, from birth to death, all these were identical to the Taoist thoughts „Yin“ and „Yang“ (see above). In trying to express this author's emotion in these personal artworks, one cannot please everyone and, so, the best way is to follow the sincere inner soul.



Fig.8: Jianyong Guo, *Pregnant*, fibre glass, 85cm x 40cm x 40cm, 2008. **Fig. 9: Jianyong Guo, *Waiting*, stoved lacquer, 85cm x 40cm x 40cm, 2010.**

In the ink painting *Bathe*, a goddess bathes in a pool of clean water in a charming place in nature. She enjoys infinite relaxation and enjoyment. As inspired by Taoist thought, human beings should be harmony with nature (Fig. 10).



Fig. 10: Jianyong Guo, *Bathe*, ink painting, rice paper, 80cm x 120cm, 2012.

In the oil painting *Expect*, there is a silent person sitting on a black stump in snow, his long, stretched neck looking forward. What is he waiting for? Perhaps his weather-beaten experience or superhuman patience or perseverance can be felt (Fig. 11).



Fig. 11: Jianyong Guo, *Expect*, oil painting, canvas, 30cm x 40cm, 2011.

The inside painting of glass bottles *Spring Bathe* (Fig. 12) tries to describe the viewpoint of harmony between human beings and nature, where the artistic conception of poetry and illusion can be felt. Needless to say, Taoist thoughts have permeated into all these personal works, and have played a leading role in the development of the personal art of this author.



Fig. 12: Jianyong Guo, *Spring Bathe*, inside painting, glass bottle, 15cm x 6cm x 6cm, 2011.

In the work *Tao Te Ching*, calligraphy has been applied to many glass bottles. These were firstly sand-blasted inside, so that the inside glass wall would hold the ink well. The ancient Taoist philosopher Lao Zi's writing *Tao Te Ching* was then written in different bottles (Fig. 13). The bottles were put side by side, because the different heights of the bottles suggested modern metropolitan buildings. These bottles presented an illusion of a harmonic civilized spectacle.



Fig. 13: Jianyong Guo, *Tao Te Ching*, inside calligraphy, ink, glass bottles, inside sand-blasted, 2012.

All the involved aspects in the research field, and the researcher"s personal artworks have founded a solid basis for this research.

1.3 Research rationale

The research rationale for this research can be summarized through five points:

- 1) The advantages and limitations of traditional inside painting of Chinese snuff bottles;
- 2) The limitations of Chinese contemporary glass teaching;
- 3) The inspiration from western glass painting, glass printing and calligraphy;
- 4) The personal and practice research motivation; 5) The targeted recipients.

The relationships are displayed in figure 14:

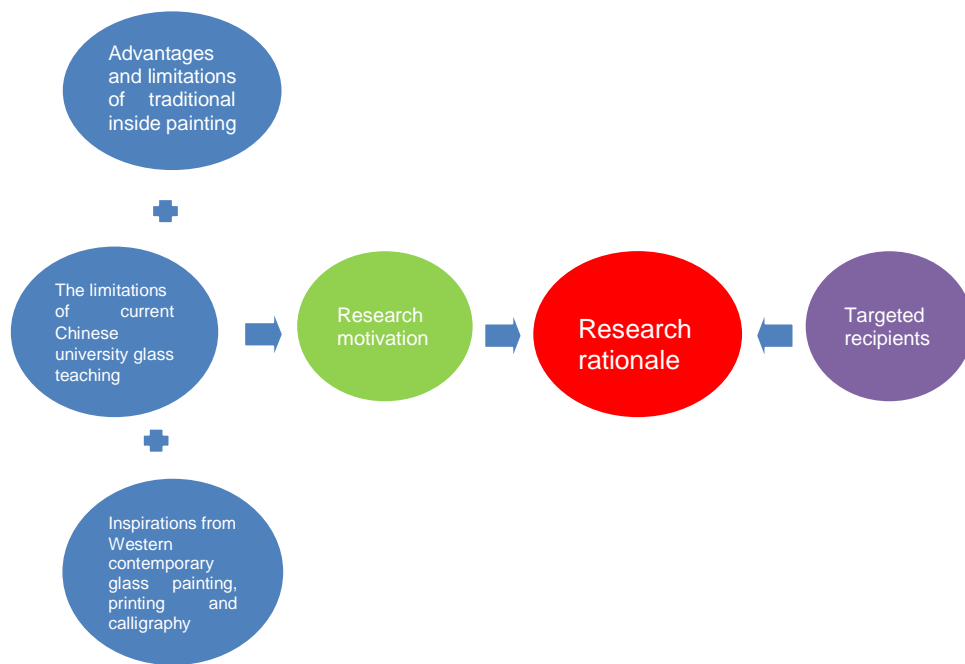


Fig. 14: The composition of the research rationale.

1.3.1 The advantages and limitations of the traditional inside painting of Chinese snuff bottles

The advantages can be based upon the knowledge that traditional Chinese snuff bottle inside painting has been developed for more than 200 years. In this long process, traditional inside painters have created many relatively mature painting methods. For example, Chinese mineral pigments combined with Western oil paint were used to paint portraits (Fig. 15). The painters also invented a series of very good inside painting tools, such as bamboo pens, curved painting brushes, and the diamond powder curved pen (Fig. 16). During the course of development, some young painters sought to extend traditional inside painting by addressing its limitations (see 2.1.2).

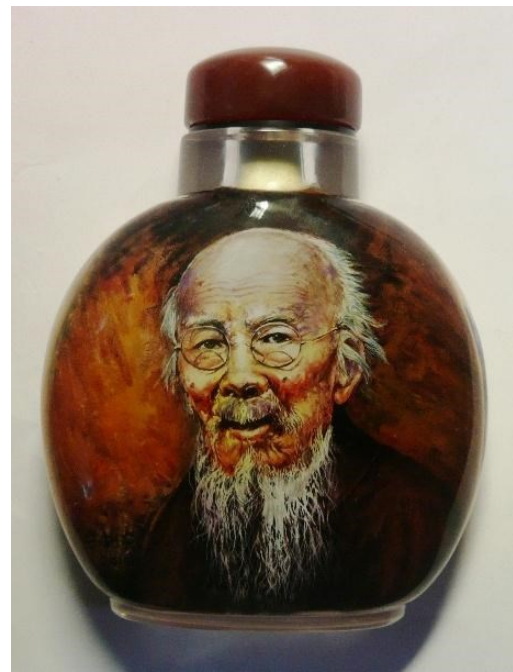


Fig. 15: Shouxun Li, *Portraits*, inside painting, crystal, Chinese pigment and oil paint, 2010.



Fig. 16: The traditional inside painting tools of four main inside painting schools in China.

The limitations are based upon the fact that:

- i) The form of the „bottle“ has remained unchanged for more than two centuries (Fig. 17):



The earliest inside painted snuff bottle, unknown, 1809 Contemporary inside painted snuff bottle, Jianyong Guo, 2015. Author

Fig. 17: Comparison of similar bottle forms which are separated by 200 years.

- ii) In the history of inside painting, from the earliest attempts to today, the subjects of inside painting have been limited and mainly Chinese landscapes, calligraphy, birds, flowers and figures (Fig. 17).
- iii) Traditional painters only concentrated on the techniques themselves, hardly expressing personal ideas (see 3.3.2). This led to them being largely „craftsmen“ as opposed to „artists“ with individual expression.
- iv) Traditional inside painting of Chinese snuff bottles is not highly valued in China (see Appendix 5).
- v) The accepted teaching style led inside painters to be „craftsman“. Chinese inside painters have usually taught their apprentices „traditional“ techniques, and so their apprentices only concentrated on how to paint according to the teacher's instructions, with less potential for the individual to think about changing or evolving the art (see 3.3.1).

1.3.2 The limitations of contemporary Chinese university glass teaching

Currently, kiln-casting occupies the main position in Chinese academies of fine art, because of the young age of the contemporary Chinese academic glass teachers, and most of them learnt casting glass abroad. Hot-glass, flame-work courses are open only at a few institutes. Glass painting (especially inside painting) courses do not exist in all the Chinese art academies (see Appendix 6.4). Accordingly it is hoped that the outcomes of this research can offer a new model for the Chinese academic glass teaching.

1.3.3 The inspiration from contemporary Western glass painting, glass printing, and calligraphy

Contemporary Western glass painting artists adapt a free art style in which they can truly display their feelings, thinking and ideas. This tends to be lacking in traditional inside painting of Chinese snuff bottles. Western glass printing, especially contemporary studio glass printing, presents an active art style. Such artists combine their drawing, painting and ideas into their glass works. The transparency and reflective qualities of the glass give this artwork a distinctive feature (Liu, 2009).

Compared with traditional Chinese calligraphy, contemporary Western calligraphic art crosses cultures, and the materials used display the affluence and freedom in the work, containing modern ideas, see Table 1:

Table 1: The inspirations from contemporary Western glass painting, glass printing, and calligraphy.

Artist	Type	Art features	Inspirations (to me)
Erwin Eisch	Glass painting	Chases unconventional art effect, the characteristic of glass is not the primary consideration; focuses on artist's ideas.	Breaks with conventional style, focuses on artist's ideas.
Ulrica Hydman-Vallien	Glass painting	Descriptive: sincerely and freely presents personal feelings, ideas, thinking. Art forms and art contents well combined.	In the process of art making, express the artist himself or herself, to be an artist, not to be a craftsman.
Cappy Thompson	Glass painting	Applies grisaille technique to paint narrative stories, displays heartfelt the mysterious stories .	Through painting presents artist's thinking.
Dana Zamecnikova	Glass painting	Uses multi-layered enamel painted glass panels to present different lively figural subjects, expresses the feelings of life.	Presents the truth of life in artist's works.

Kevin Petrie	Glass printing	Combines personal drawing, painting with glass panels, glass sculptures.	Presents personal feelings, ideas through printing artworks.
Jeffrey Sarmiento	Glass printing	The narrative subject, through glass printing, water-jet, fusing methods creates a distinctive art style, displays a non-native psychology.	Art works are the means of presenting artist's personal psychology.
Kathryn Wightman	Glass printing	Finds inspirations in daily life. Printing decoration is her main method in artworks.	Life is the rich source for art creations
Manny Ling	Calligraphy	Across cultures, materials to display a distinctive style in calligraphy.	Calligraphy stands for the artist's all.

1.3.4 Personal motivation

Traditional Chinese inside painting of snuff bottles is part of the „perfect“ Chinese artistic culture. Although the advantages of the art style inspired this author to learn its essentials, its inherent limitations prevented any immediate development of technique. I understand the limited availability of courses in contemporary Chinese university glass teaching, where the teachers and students of glass art would like to see the subjects being expanded and are frustrated by waiting for such developments (see 4.3).

This author's personal glass sculptures, paintings and calligraphy, combined with use of the essential techniques of inside painting, have shown ways for „new“ inside painting.

My experience in glass teaching and the inspiration from Chinese traditional inside painting, calligraphy, Taoism, together with inspiration from Western glass painting, glass printing and calligraphy underpin this research.

1.4 Research questions and subsequent aims

Questions then emerged which formed the focus for this research:

- 1) Why might it be beneficial to apply the techniques of inside painting of snuff bottles to contemporary glass art?

- 2) How might the traditional inside painting of Chinese snuff bottles be developed?
- 3) How might artists integrate their glass sculpture with imagery through inside painting?
- 4) Why is it necessary to apply the new model of inside painting to courses in Chinese contemporary university glass teaching?

From these questions the research aims were developed:

- 1) To create a body of creative practice that shows possibilities for developing „traditional“ inside painting techniques of Chinese snuff bottles.
- 2) To create a body of creative practice that shows how to create the new models for developing contemporary Chinese academic glass teaching.
- 3) To develop, demonstrate and record how one artist might integrate ideas and aesthetic direction through inside painting for others to benefit.

1.5 Methodology

Denscombe (2010) states that *“A strategy is a plan of action designed to achieve a specific goal”* and in trying to find a „best“ strategy for this current research *“It is a matter of „horses for courses“ – choosing a strategy that is „fit for purpose“ in relation to the particular thing the research is trying to achieve”* (Denscombe, 2010, p.4).

In terms of the particular „requirements“ for this research, a multi-method approach has been taken, and the main strategy formed by contextual and practice-led discovery. For the contextual review, a literature survey, case study reviews, interviews, questionnaires, study trips, and subsequent analysis were all applied in order to generate „data“.

The practice-led aspect was obtained by the process of building up a body of studio-based inside painting works. In addition, personal practice, collaboration, comparison and interpretation, mapping, together with reflection and analysis were all combined in order to test and achieve the research aims and research objectives.

The methodological structure of this research can be shown diagrammatically:

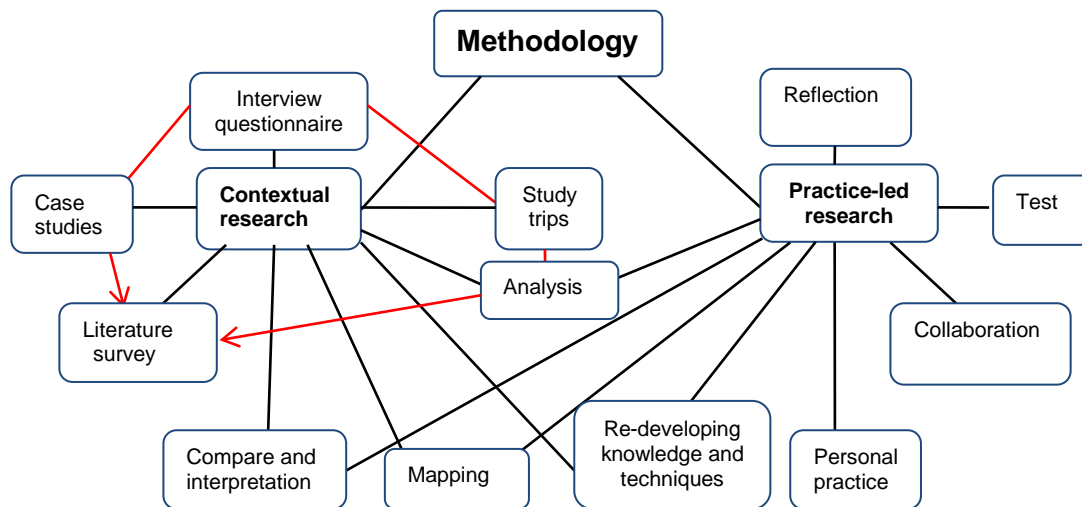


Fig. 18: The methodological structure of this research.

1.5.1 Contextual research

“Undertaking a contextual review: Mapping the terrain” (Gray & Malins, 2004, p.48):

For this research the „terrain“ includes what has already been addressed and what has not yet been solved. Through the contextual review, the „gap“ in this research terrain should become tangible. Factual information collection is the main aim of contextual research, and by employing a number of different survey techniques, data can be derived and accumulated. This data *“(it) is „viewed comprehensively and in detail“, and the purpose of doing a survey is generally to „obtain data“ for mapping”* (Denscombe, 2010, p.11). A multi-method approach was therefore employed in order to carry out the survey process.

This process began with a literature survey, including a historical, contemporary and a related cultural review. Here, the historical review referred to traditional inside painting of Chinese snuff bottles, and Western glass painting. The contemporary review took into account „new“ Chinese inside painting of snuff bottles, and Chinese university glass teaching.

The related cultural review included traditional Chinese painting, calligraphy and Taoism, Western glass printing and calligraphy, in relation to this author’s cultural

background. For this data collection the adopted methods were study trips, interview, questionnaire, case studies, internet survey, libraries survey, conferences, mapping and analysis (see fig. 18 above).

An important component was the comparison of Chinese and western glass painting. Four „study trip“ were completed, including one in China, 2014:

Table 2: Details of a study trip in China 2014.

Items	Addresses	Contents
Inside painting schools	Hengshui, Boshan	Visited inside painting teachers, students, reviewed painting tools, books, methods, painting levels, painting contents, gathered experiences, opinions, works.
Inside painting museums	Hengsui, Shenzhou, Boshan	Collected reference materials, including books, pictures, photographs, videos, painting tools and pigments, historical snuff and snuff bottles, and inside paintings examples.
Important inside painters	Beijing, Hengshui Boshan, Shenzhou	Xishan Wang, Zenglou Zhang, Shouben Liu, Guangqing Zhang, Ziyong Wang, Yining Lai, Yizi Liu, Xiaocheng Wang, Luhua Zhang, Tieshan Wang, Guangzhong Zhang, Guoshun Fu, Yiming Jin, Shan Hang, Yi Ding, Jijie Sun, Chunguang Wang, Dayong Wang, Runpu Chen, Guanyu Wang.
Glass making factories	Boshan, Hengshui	Zhenghuang hot glass factory, Aimei hot glass factory, Xishan Wang snuff bottle-making factory. Collaborations sought.
Glass studios	Beijing, Shanghai, Hangzhou Jinan	Tsinghua University of Fine Arts, Shanghai University of Fine Arts, China Institute of Fine Arts, Shandong University of Art and Design. Investigated glass teaching courses, and the opinions of teachers, artists and students.
Inside painting exhibition	Boshan	Renli Glass Museum: the biggest Asian inside painting exhibition, April 8, 2014. Met and visited almost of the famous Chinese inside painters.
Inside painting conferences	Hengshui Boshan	Talked about the development of Chinese snuff bottle inside painting, discussed the reform of inside painting. Collected opinions.
Bookshops	Beijing, Shanghai, Jinan, Shijiazhuang, Zhengzhou Nanjing	Visited large-scale bookshops for reference, all located in capital cities of different provinces in order to survey how many inside painting books were in these bookshops. There were few books on the subject which suggested that the subject was not well-known or appreciated. Interviewing of people in these bookshops revealed that most of them did not know about inside painting of Chinese snuff bottles.

A second study trip was to London (2014) in order to visit museums to gather relevant information for this research. The British Museum, The Victoria and Albert and National Gallery of Art were visited, as well as to Tate Britain and Tate Modern.

Trip 3 was a return trip to London (2015) in order to see the M.A. Fine Art Graduate Exhibition at the Royal College of Art, and the Victoria and Albert museum again. Some contemporary glass artworks and sculptures were surveyed.

Trip 4 was to Sweden in 2015. In Sweden the Kosta Boda Art Gallery, the famous glass painting artist Ulrica Hydman-Vallien and the sand casting glass master Bertil Vallien, were visited and shown examples of Chinese snuff bottle inside painting, with similar work by this author. Their opinions of these works appear in e-mails (Appendix 1).

Interviews and questionnaires were carried out in China (2014 - 2016), Sweden (2015), America (2015 - 2016), and the Czech Republic (2015) through personal visits, e-mailing and the use of Skype.

In China, a number famous traditional inside painters were interviewed on history of inside painting, its development, influence, and the number of people practicing the art form (Appendices 2 & 3).

In addition glass artists, teachers and students in other Chinese Institutes were interviewed in order to carry out questionnaire-style data-gathering regarding current practices in glass teaching, and to record their opinions regarding adding inside painting to glass teaching courses (see Appendix 6.5).

Well-known glass painting artist Cappy Thompson was interviewed through e-mail. Similarly, the artist Dana Zamecnikova from the Czech Republic, was interviewed through e-mail and Skype (see Appendix 1).

Comparison of traditional Chinese inside painting to contemporary Western glass painting, printing and calligraphy revealed a free individual expression present in western artworks that is lacking in traditional Chinese inside painting. The „lack“ inspired this researcher to find a „new“ form of inside painting in order to develop the traditional style.

“Case studies are used when it is necessary to develop a detailed understanding of what is happening in complex circumstance” (Moore, 1999, p. xiii), and when a case study approach is taken “the researchers buy into a set of related ideas and preferences which, when combined, give the approach its distinctive character” (Denscombe, 2010, p.52). In the case studies for this research several very important artists who were directly related to this research were chosen:

Table 3: The case studies in this research.

Time	Artist	Type	Characteristic	Relationship to research
Traditional	Xuanwen Gan	Inside painting	The earliest inside painter in China whose works have a signature.	On behalf of the form of original inside painting
	Leyuan Zhou	Inside painting	Extensive themes, good at landscape painting.	Similarly adopted the elements of Chinese traditional Culture
	Shaoxuan Ma	Inside painting	Famous for inside painting combined with calligraphy	Inspired the application of calligraphy to personal practices
	Zhongshan Ye	Inside painting	Extensive themes, suited for both refined and popular tastes	For research of traditional inside painting, affording some useful examples.
Contemporary (Chinese)	Xiaocheng Wang	Inside painting	His personal works are fresh and elegant; called for developing traditional inside painting.	Was identical to the research aim 1.
	Yizi Liu	Inside painting	The first inside painter who carried out a „New Inside Painting Movement“ in 1994.	Shares the advocating of developing the traditional inside painting with the research
	Luhua Zhang	Inside painting	The responder of the „New Inside Painting Movement“, advocated the landscape painting sketch.	Similarly shares opinion with this author to the extent of paper painting applied to inside painting
	Xiaowei Zhuang	Kiln-casting	Integral, poetical, connotative	Example for the Chinese teacher of the subject

	Shufeng Dai	Kiln-casting	Integral, applied traditional element	Example for Chinese teacher
	Donghai Guan	Sand and kiln casting	Integral, applied traditional element	Example for Chinese teacher
	Xue Lu	Centrifuged and Kiln casting	Fluent, modern, applied traditional element	Example for Chinese teacher
	Yi Peng	Flame work	Fluent, modern, with applied traditional elements.	Example for the Chinese teacher.
	Han Xi	Kiln-casting	Sculpture sense, large, spacial.	Example for Chinese teacher.
Contemporary (Western)	Erwin Eisch	On glass painting	Felt free to treat the glass in a way he desired.	Shares the same opinion with this author as to the artist dominating the artwork.
	Ulrica Hydman-Vallien	On glass painting	Artwork express artist"s feeling, ideas.	As above
	Cappy Thompson	On glass painting	Painting expresses artist"s feeling, ideas.	As above
	Dana Zamecnikova	On glass painting	Artworks express her deep-inside thinking.	As above
	Kevin Petrie	On glass printing	Paintings, drawings were applied into printing works.	As above
	Jeffrey Sarmiento	On glass printing	Printing works expresses artist"s feeling, ideas.	As above
	Kathryn Wightman	On glass printing	Printing decorative works expresses artist"s feeling, ideas.	As above
	Manny Ling	Across culture calligraphy	Calligraphy works expresses artist"s feeling, ideas.	As above

Part of the information-gathering process included this author"s attendance at three conferences: two in China, concerned with development of Chinese snuff bottle inside painting, and one staged at the University of Durham in the UK entitled „Glass Science in Art and Conservation" (2014), where this author gave a presentation on this current research.

The Gray & Malins mapping method was used in this research for leading its direction in ordering the multi-ply knowledge, and for finding “a „*tangible „gap*“ in knowledge” (Gray & Malins, 2004, p.36).

In this thesis, the history of the traditional inside painting of Chinese snuff bottles is presented in the contextual review in Chapter 2. The current situation in Chinese university glass teaching is mapped in Chapter 4. Limitations of the traditional Chinese inside painting (Chapter 3) and contemporary Chinese university glass teaching having emerged (Chapter 4). Tangible restrictions were found.

Through analyzing the advantages and disadvantages found in the literature survey, the research created a „bridge“ to advance knowledge, techniques and glass education (Chapter 5).

1.5.2 Practice-led research

“Practice-led research has been characterized by a focus on issues, concerns and interests that are explored and manifested through the production of artefacts” (Mäkelä & Routarinne, 2006, p.23). In the contextual survey a „gap“ was found: the „gap“ being the „lack of personality“ of traditional Chinese snuff bottle inside painting and the „monotonicity“ of contemporary Chinese glass teaching. Through implementing various personal studio practices (Table 4), a „new model“ of inside painting is offered.

In or after each research practice, the advantages and disadvantages within every kind of experiment were analyzed, respectively testing the outcomes that had been achieved during the data-gathering process.

The large number of inside painting works produced during this research demonstrated the improvements inspired from traditional knowledge and techniques which were subsequently re-developed as a result:

Table 4: Production methods with implications for development of the style.

Methods in practices	Types	Effects
	Kiln-casting	Shape of works more easily controlled. Can produce hollow figures, which can be painted inside. Have good effects of refraction and reflection.
	Blowing (free-hand blowing and mould-blowing)	Free-hand blowing can make rich shapes. Mould-blowing easy to keep the same shape.
	Flame work	Applied to small pieces, lack a sense of volume.
	Kiln-slumping	Made an effect upon inside painting, the images would be changed in a large extent.
	Kiln-formed fusing	Made an effect of inside painting, beneficial for long-term keeping.
	Outside painting combined with inside painting	Could produce different dimensional effects.
	Printing combined with inside painting	Could enrich the effect of inside painting.

Collaboration was sought from experts in their field in order to help produce the eventual body of glass art for this research (see 5.3).

For example, „*Waiting*“ (Fig. 124) was blown by Changsheng Xing, a free-hand, hot-glass blower from the Boshan Zhenhua glass factory in China, who has more than twenty years experience.

James Maskrey, a senior technician at the UK National Glass Center helped this author to finish the series of works „*Pregnant*“ (Fig. 136), „*Season*“ (Fig.147) and „*Clothes*“ (Fig. 150).

The Chinese craftsmen Zaiyin Zong and Songbao Kan helped in the polishing and hollowing of the cast works, such as the pieces „*Maiden*“ (Fig. 106), „*Pregnant I*“ (Fig. 107), and „*Girl*“ (Fig. 113).

This author's research practices were compared to traditional inside painting of Chinese snuff bottles and some contemporary Western glass painting works in order to display and interpret their development and differences. Several maps are clearly listed in the practices section. The working practices applied in this research reflected traditional cultures. For example, the tools and used here were those used in traditional inside painting techniques and tools were used.

1.6 Objectives of this research

According to the aims of the research (see 1.4) and the methodology (see 1.5) the developed objectives can be list below:

- 1) To develop the traditional Chinese inside painting of snuff bottles through the influence of contemporary glass art.
- 2) To develop the traditional Chinese inside painting to influence contemporary academic glass teaching.
- 3) To create a body of glass artworks using inside painting which integrate glass artworks and paintings as examples others might use and adapt.

1.7 Summary of thesis

- Chapter 1 introduces the research fields, research rationale and the research motivation, identifies the research aims, methodology and objectives.
- Chapter 2 contains the contextual review, includes personal background, historical review, contemporary review, and related cultural review, describes and compares the different styles of glass paintings in China and West.
- Chapter 3 documents the advantages and limitations of the traditional inside painting of Chinese snuff bottles, analyzes the potential terms of settlement.

- Chapter 4 documents the current situation of the contemporary Chinese university glass teaching, discusses the benefit to apply the outcomes of the research to the Chinese glass teaching.
- Chapter 5 documents a body of personal practices, demonstrates the feasibility and necessity to apply the techniques of inside painting of snuff bottle into the contemporary glass art and contemporary Chinese university glass teaching.
- Chapter 6 is the conclusion, describes the whole conditions of the research, discusses the discoveries what related to the research aims, methodology and objectives, states the contributions to knowledge, and identifies the areas of potential for further research.

Chapter 2 –Contextual review

This chapter discusses the five main components, ie, the foundations of this research:

- *Traditional inside painting of snuff bottles is based upon the fundamentals of Chinese painting and calligraphy;*
- *The guiding thoughts of Taoism applied to the above;*
- *Western contemporary glass painting;*
- *Western studio-based printing and calligraphy;*
- *Personal art practice inspired from Chinese painting, calligraphy and Taoism.*

2.1 Traditional inside painting of Chinese snuff bottles

Snuff bottles became extremely popular with the Emperor of the Qing dynasty and his officials, during the Jiaqing (嘉慶) Period (1796-1820), in the capital city Beijing (Xia, 2005). A rapid development and popularization of these objects began. However, most of these early inside painted snuff bottles went abroad, with relatively few left in China (Long, 2007).

Initially, inside painting developed merely to simply decorate snuff bottles, but then gradually formed into a unique art style: a type of special Chinese craft art. It is now considered a „shining pearl“ of Chinese art (Liu, 2011).

In reality the painting principles and aesthetic ideas practiced in both „paper“ and „inside“ painting were consistent, although the painting methods were, and are, slightly different (see Table 5).

The mature development of inside painting (see 1.2.1) meant it became a unique art form, while generating a group of outstanding snuff bottle painters. Early inside painted snuff bottles were made of semi-transparent materials, with good-quality examples being made of crystal, agate and jade.

Table 5: The comparison between Chinese inside painting and Chinese paper painting.

Type	Tools	Paint	Painting principle	Aesthetic ideas	Painting methods
Inside painting	Curved bamboo sticks, curved painting brushes.	Chinese mineral paint, oil paint, ink, watercolor, acrylic paint.	„Chi“, „Yun“, „Sheng“, „Dong“ (See 2.2.3).	Taoist thought, everything in balance must be in „Harmony“.	Line sketch first, paint second. Frontal subjects painted first, rearmost subjects painted second (Wang, 2014)
Paper painting	Traditional writing brushes	Chinese mineral paint, ink.	„Chi“, „Yun“, „Sheng“, „Dong“ (See 2.2.3).	Taoist thought, everything in balance must be in „Harmony“.	Line sketch first, paint second. Rearmost subjects must be painted first, frontal subjects last (Wang, 2014)

The whole process of inside painting is very complex, and mostly hands-on. The body of a snuff bottle is usually flat, so that there are two inside planes for painting. Before painting, the inside wall needs to be rubbed with iron sand, in order to give the internal surface of the bottle a frosted effect so that the paint can adhere to the glass. Paint is applied with a special small bamboo pen inserted into the bottle neck and the subject painted in reverse in order to make the actual painting in the bottle. This requires a very high level of skill to produce a perfect work.

A variety of painting techniques can be chosen during the process of inside painting, but those of traditional Chinese painting are usually employed (Nie, 2014).

2.1.1 Case study: Early 19th inside painters of Chinese snuff bottles

Early inside paintings were achieved with bamboo sticks. These were less able to hold ink or pigment meaning that it was difficult to draw a long line in one stroke. This increased the time taken to paint a subject. Later painters invented a curved writing

brush, an improvement over the bamboo stick. However, the bamboo did have an advantage over the brush in that it could complete a rigid line with a finish that was perfectly round, unlike the brush which left a „virtual“ point: it lacked a sense of space.

The earliest inside painter whose works had an exact signature was Xuanwen Gan (甘烜文) (dates are unknown). His earliest snuff bottle inside painting was signed in 1816. His strokes are distinct and easy to read. For example, his most common example was *Lan Ting Xu* (蘭亭序) which was copied from the famous ancient calligrapher Wang Xizhi's (王羲之) works (Liu, 2011). His inside painting used a shallow purple color, and the style was similar to that of other Chinese paper landscape paintings (Fig.19).



Fig. 19: Xuanwen Gan, *Lan Ting Xu*, inside painting, 7.5 x 5.5cm, Qing Dynasty, Jiaqing (1796-1820).

After the period of the Qing emperor Guangxu (1875-1908), the technique of snuff bottle inside painting reached its peak and a number of famous inside painting masters emerged. Leyuan Zhou (周樂元), Shaoxuan Ma (馬少宣) and Zhongsan Ye (葉仲三) were regarded as three great masters of the genre at that time.

Leyuan Zhou (dates unknown) was initially a palace lantern painter. He was one of the earliest inside painters of snuff bottles. His earliest works were painted in 1882, and the last one in 1893, at which date some researchers believe he died. The themes of Leyuan Zhou's inside paintings were very extensive: landscapes, figures, flowers and birds, insects, and calligraphy (Fig. 20). All were fine, but he was especially good at the landscape (Liu, 2011).



Fig. 20: Leyuan Zhou, *Landscape*, crystal, 8cm x 5cm, 1892.

Shaoxuan Ma (1867-1939) was famous for both his poetry and his snuff bottle painting skills, and was famous for producing bottles with calligraphy on one side and figure painting on the other (Fig. 21). Royalty and other celebrities all collected Shaoxuan Ma's snuff bottles during his time (Liu, 2011).

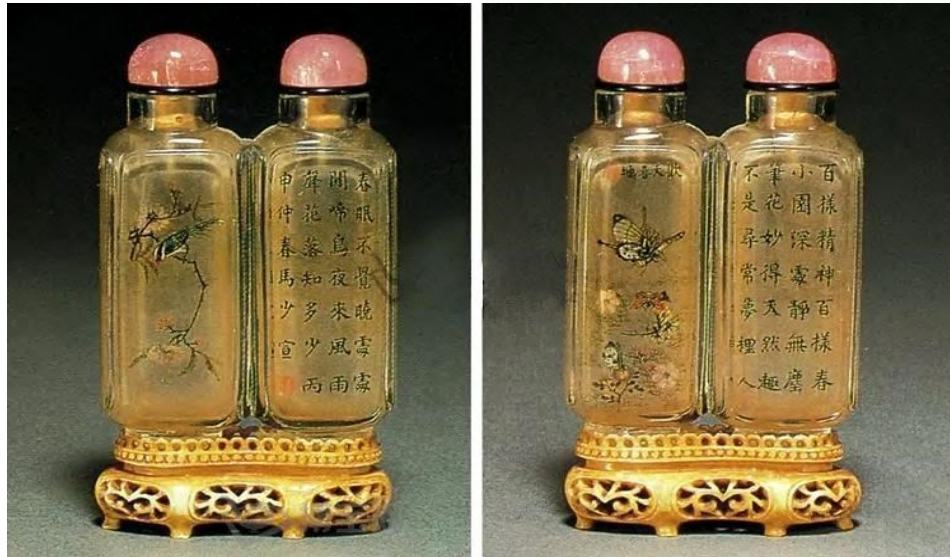


Fig. 21: Shaoxuan Ma, *Happiness*, crystal, Siamese-twinning bottles, ivory plinth, 1896.

Zhongsan Ye (1875-1945) was well known for his snuff bottle inside painting during the late Qing Dynasty (1840-1912), his style being popular both in refined society and amongst the less wealthy. The themes of his inside painting were extensive, and his achievement in art was far greater than that of Leyuan Zhou and Shaoxuan Ma. Examples of his style include the paintings of the serial story of „*Liao Zhai*“ (a book of famous ghost stories in China) and in the figures of „*A Dream of Red Mansions*“ (a famous classical novel in China), all appearing lively and vivid (Fig. 22)



Fig. 22: Zhongsan Ye, *Filial Piety*, crystal, 7cm x 5cm, 1942.

2.1.2 Case study: New (late 20th- 21st century) inside painting of Chinese snuff

bottles

Xiaocheng Wang (王孝誠) (b.1945) is a well-known contemporary snuff bottle painter in Boshan. He graduated in 1975 from the Chinese painting department of the China Institute of Fine Arts in Hangzhou and excels at Chinese paper painting. He advocated that innovation was the soul of arts and crafts, and that young painters should further inherit the traditional Chinese art. He has constantly been innovating and developing the art-form (Fig. 23) and has created many high-quality works and in doing so has carried forward the art of snuff bottle inside painting (Wang, 2007):



Fig. 23: Wang Xiaocheng, *Teaching*, crystal, new inside painting, 7cm x 5cm, 2001.

Yizi Liu (劉藝子) (b.1963) is a well-known inside painter of the snuff bottle in China. He initiated a „New movement“ to inspire snuff bottle inside painting in 1994 (Ding, 2010). Its theme emphasized that inside painting of snuff bottles must be art led (Fig. 24). The movement unequivocally opposed the traditional Chinese folk craftsmen who invariably copied and repeated themselves in this style of painting. He suggested that these craftsmen should adopt a new artistic language to interpret contemporary inside painting and to unceasingly carry on research (ibid).



Fig. 24: Yizi Liu , *Hometown Dream*, crystal, 7.9 x 5.5cm, 2005.

Luhua Zhang (張路華) (b.1978) is from Boshan, famous for traditional glass making. He was inspired from a young age by his father Guangqing Zhang (張廣慶) (himself a very famous inside painter of the snuff bottle). He studied Chinese paper painting at the Nanjing Institute of Art, and the Central Academy of Fine Arts, in Beijing, for many years. He believes that a good inside painter of snuff bottles must have a high basic level of Chinese paper painting and understanding of art theories. Luhua Zhang sketches from nature and then applies these sketches to painting inside snuff bottles (Fig. 25). He has adopted this method to avoid the traditional way of copying existing work. Hence he is eager for the „new inside painting movement“ (ibid).



Fig. 25: Luhua Zhang, *Cloud, Pine and Wind*, crystal, 8.2 x 5cm, 2012.

The first goal of the „New movement“ was to update the style of inside painting - a „passive“, constant repetition of traditional subjects where the painter was no longer sensitive to the world around him, and merely reproduces a look of stiffness and lifelessness: work that has no „soul“ (Ding, 2010).

The new movement lays more emphasis upon the renewal and transformation of the artist's conception, and advocates that inside painting needs to have „a spirit of the times“ – modern times, not those of the past. Modern artists should not eschew the world around them and merely indulge in an ancient spirit that is long gone.

„Art“ should be understood in its relationship to „technique“. Technique is not art. An artist should produce work to convey feeling“, not simply to produce „output“. There is a distinct difference between an artist's work and a craftsman's (Jiu, 2007).

Ultimately the aim of „new inside painting of snuff bottles“ is calling for a more personalized artistic language.

2.1.3 The international influence of Chinese traditional inside painting

The emergence of Chinese snuff bottle inside painting “*involved almost every kind of Chinese art and craft*” (Wang, 2014, p.8), and was soon widely collected worldwide. It became cherished, and was considered an “*extremely skillful*” art form in the international art world (Liu, 2011, p.43).

In continental Europe, France was the first country to collect Chinese snuff bottles with inside painting. French scholar M. Palellogue published „*Chinese Art*“, in Paris, in 1887. It touched upon inside painting, where he described this unique art as “*the most perfect, it's hard to imagine the superb artistry*”, he also praised the Chinese folk artists with a passion that exhibited “*a patience and persistence that reached the zenith of manual craft*” (Palellogue, 1887, p.107). Many treasured examples of snuff bottle inside painting were collected in Paris (Yang, 2008).

German connoisseurs followed. Today in the Hamburg Museum, there is a portrait of the German King William with a snuff bottle painted by inside painter Ma Shaoxuan around 1901(ibid).

English scholars, such as William Bragge, John Hedley, Douglas Carruther and the missionary James Gilmour, all published books and monographs reflecting a sincere appreciation of the talent of China's remarkable folk artists (ibid).

In November 1968, with support from the Asia Society in New York, Edward Choate O'Dell (1901-1982), an America connoisseur of Chinese snuff bottles, created the International Chinese Snuff Bottle Society (ICSBS) which currently has its headquarters in Baltimore, Maryland (ICSBS, 2014). Members joined from all over the world with a purpose to study the art of Chinese snuff bottle inside painting. As with any major organization, it was set up with a board of directors, a chairman and a secretary-general. Every year, in October, a meeting is held in a major city in the world,

and a quarterly journal is published about aspects of the Chinese snuff bottle. The incumbent chairman of the ICSBS is Berthe H. Ford, and the former President is her husband Mr. John Gilmore Ford (Fig. 26).

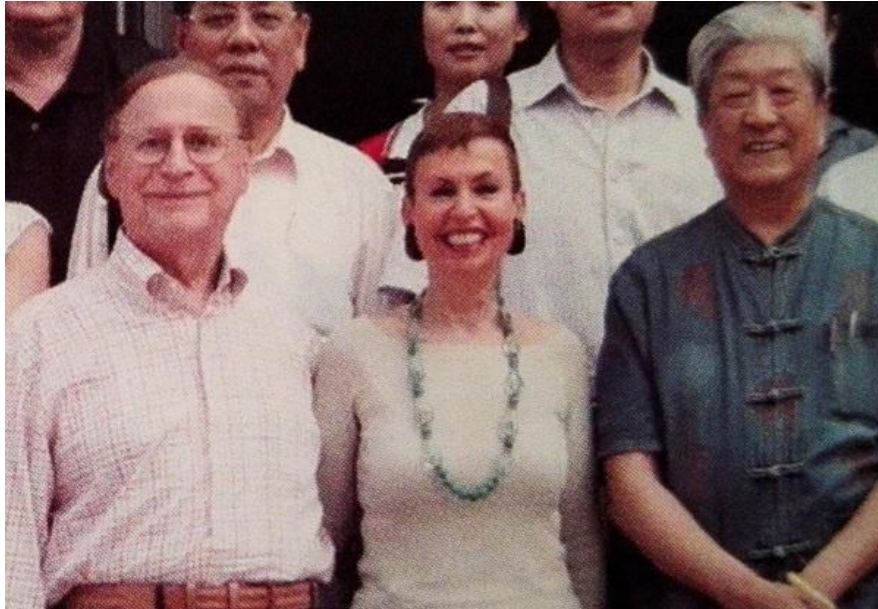


Fig. 26: Berthe H. Ford, John Gilmore Ford and inside painting master Xishan Wang, at the Hengshui Xishan Wang Inside Painting Museum, 2013.

There are many internationally renowned Chinese snuff bottle collectors in the world, such as the Hong Kong industrialist Liang Zhixing, Singapore's Yang Jianghe, Hugh Moss (who is a British snuff bottle research authority and collector and who has the reputation of being „Mr International Snuff Bottle“ (Wang, 2014), the United States" Agatha & Irving Aronson, Robert Hall, Chris Randall, Robert Kleiner, and Mary & George Bloch, Canada's Mary Margaret and Maurice Young. After searching in an antique shop and finding some exquisite snuff bottles in Vancouver, Mary Margaret Young fell in love with this art. Since 1960, she has regularly attended auctions and visited antique shops to buy snuff bottles. In addition, she founded the magazine „*Chinese Snuff Bottles*“ with like-minded collectors, and the editor was London antique dealer Hugh Moss (Yu, 2007).

In October 1987 the ICSBS co-operated with the Sydney L. Moss Galleries in London and held an annual conference and thematic exhibition of snuff bottles. On 6 May 1986 a snuff bottle containing a painting by arts and crafts master Wang Xishan of a famous dog was purchased by a Mr. George Bloch for £ 7,480 in London Sotheby's

auction, the highest price at auction at that time for a Wang Xishan piece. On 5 May 1990, at Sotheby's auction in Hong Kong, a Wang Xisan (王習三) creation „*Farewell My Concubine*“, in a natural crystal snuff bottle, achieved HK\$241,500, which became the (then) record for contemporary snuff bottle painting at auction. In September 1994, this work reappeared at another Sotheby's auction, and fetched US\$150,000 (Tianya Society, 2009).

In May 2009, at the first modern inside painting auction held by the Beijing Han Hai Auction Company, Wang Xisan's work „*Companion*“ (Fig. 27) reached RMB ¥400,000, and the piece „*Hundreds of Butterflies*“ sold for RMB ¥509,600, nearly EUR70,000 (Fig. 28), a record for contemporary Chinese snuff bottle inside painting (Tianya Society, 2009).



Fig.

27: Wang Xishan, *Companion*, glass, inside painting, 1978.

After the first anniversary of the ICSBS was held in New York in September 1969, subsequent meetings were held annually in different cities all over the world, such as Chicago, Philadelphia, Washington, Los Angeles, San Francisco, Seattle in the USA. and in London, Hong Kong, Beijing, Paris, France, and in Canada. The 46th ICSBS Annual Convention was held in Hong Kong and Xi 'an in China in October 2014 (ICSBS, 2014).

The market for Chinese snuff bottle inside painting collection is rising and, although loved at auction by specific collectors, a wide-reaching appreciation and understanding of the art form is lacking. With an increase of critical profile, its artistic value will be more widely recognized.



28: Wang Xishan, *Hundreds of Butterflies*, crystal, 1984. Fig.

2.2. Contemporary Western glass art methods in comparison to traditional Chinese techniques

Western techniques of glass painting are very different to those used in Chinese inside paintings, and have been studied in this research for comparison so as to help to find the limitations of the art form and content that exist in Chinese snuff bottles inside painting:

Table 6: The relationship between Chinese and Western glass painting and calligraphy related to the research.

(Western) Styles	Character	Inspired the new form of inside painting	(Chinese) Styles	Character
Contemporary glass painting	Painting (enamel, acrylic), art form and content is flexible, focuses on personal feeling expression		Traditional inside painting	Painting (Chinese pigment), focuses on techniques rather than personal expression, art form and content is monotonous.

Studio-based printing glass	Drawing or painting (enamel or other pigment), art form and content is flexible, focuses on personal feeling expression			
Contemporary calligraphy	Mutual inspired with Chinese calligraphy, focuses on modern style and personal expression.		Contemporary calligraphy	Mutual inspired with West calligraphy, focuses on traditional techniques.

2.2.1 Case study: Contemporary Western glass painting

This refers to paint applied to the surface of sheet glass, glassware or glass sculpture. These glass works can be made through casting or blowing glass, and flame work. Although some paintings are mainly for decoration, some artists paint simply to show their feelings or ideas. The paintings usually were painted on enamel. Since the studio glass art movement in the 1960s, many contemporary glass painting artists emerged, such as the German artist Erwin Eisch, the Czech artist Dana Zamecnikova, Sweden's Ulrica Hydman-Vallien, and the American Cappy Thompson. Their freehanded painting approach, the unconstrained way of thinking, and their concentration on how to express their own emotions and ideas were very contemporary. This case study provides a simple outline and summarizes some of the contemporary glass painting artists in the West.

The German glass artist **Erwin Eisch** (b. 1927) is a founder of the European studio glass movement. While growing up in Germany, he helped his father to build his family glass engraving company, and studied in the Munich Academy of Fine Arts where he studied a broad range of different art forms. Painting, printmaking, glass, sculpture and architecture are all employed in his artworks (Lundgaard, 2012). Eisch concentrates on the intuitive nature of creation. He opposes the principle that suggests that an experienced technology should be used to create artworks. Katharina Eisch-Angus has pointed that *“One of the most influential aspects of Eisch’s work in glass was that its dark colors and opaque decoration intentionally denied the qualities of glass that were traditionally is most prized”* (Angus, 2012, p.186). Eisch felt free to treat the glass any way that he wanted, and has made a body of glass sculptures upon which he painted with enamels. In the 1970s he chose the study of lines, forms, and

colors as the way to communicate his ideas and feelings when painting on portraits and glass sculptures (Angus, 2012). Typically, he changes the color of the glass used, and engraves some details onto his sculptures. He does not paint many details on the sculptures, but merely changes the surface nature of the glass (Fig. 29).



Fig. 29 Erwen Eisch, *Do Good Work*, Mold-blown and free-formed glass, partly painted, engraved, platinum-painted. Height approx. 52cm, 2004.

The National Glass Centre (UK) held the first major retrospective of glass sculptures and paintings in a new gallery for this artist in 2013, entitled: *Erwin Eisch - Clouds Have Been My Foothold All Along* (Fig. 30). “Across all media Eisch’s work is highly distinctive in style and in theme. He challenges theory, addresses social and political issues, combines humour and serious thought and explores the importance of human relationships” (NGC, 2013). Eisch also employed the idea of „installation“ to present his glass works (Fig. 31).



Fig. 30 Erwin Eisch, *Portrait Heads*, Mold-blown and free-formed glass, enamel-painted, mirrored, platinum-painted, Height approx. 45cm, 1976.



Fig. 31: Erwin Eisch, *Narcissus, An Interior*, Recreated at the installation of 1971 at the Glass Museum Frauenau, 2005.

Ulrica Hydman-Vallien (b. 1938) is a Swedish artist, famous for her narrative painting glass works. Ulrica has painted on variety of materials such as canvas, ceramics, glass and solid block crystals (Fig. 32). All of her works exhibit important forms of expression with powerful imagery, and paints her works with humorous designs and unrestrained energy. She has worked in Kosta Boda from 1972 and has regularly exhibited her works at the Doktor Glass Gallery in Stockholm.

Ulrica has tried to express her life story and feelings through her glass paintings (Hydman-Vallien, 2004). For example, she has often incorporated snakes in her glass paintings to express the fear that came from her childhood when she had been scared by a snake (Fig. 33, *ibid*).



Fig. 32: Ulrica Hydman-Vallien, *Cat Women*, Fig.33: Ulrica Hydman-Vallien, *Nightmare*, solid block, painted glass, 35x40x25cm,1992. Block glass, enamel painting, 36x28x20cm,1991.

Ulrica makes her glass works using the same method that she employed when working on canvas, paper, and clay, and typically paints on glass with acrylic colors. She absorbed some traditional glass techniques so as to create new methods (Zetterström, 2010). *“She has developed the Graal technique in her own way in order to intensify the optical effect of the colours. Or, quite simply, she mixes colour into the hot glass mass”* (Zetterström, 2010, p.30). She applies strong and gaudy colours, and

exuberant lines, in her paintings. These have always made her paintings full of powerful contours and strong visual effects (Fig. 34).



Fig. 34: Ulrica Hydman-Vallien, *He in Glass*, glassware, acrylic painting, 2004.

Cappy Thompson (b. 1952) is an American glass artist who lives and works in Seattle. She is known for her mytho-poetic narratives on glass using the grisaille (or gray-tonal) painting technique. Cappy made stained glass initially in which the contents were based on Hindu, Pagan, Judaic, Buddhist and Islamic painting (Thompson, 2006). Currently, she has painted glass vessels and reverse sheet glass exhibited in public spaces. Her best-known public works are *Dreaming of Spirit Animals* at the Seattle-Tacoma International Airport (Fig. 35) and *Gathering the Light*, seen in the lobby of the Museum of Glass in Tacoma. The narrative theme of her paintings presents a strong decorative characteristic (ibid.).



Fig. 35: Cappy Thompson, *Spirit Animals*, Seattle-Tacoma International Airport, 2011.

She has always created images with transparent jewel-like colors in order to depict the magnificence of a natural and divine order. She adopted characters of naive naturalism and devout simplicity from mythology, fables and folktales (Glowen, 1992) (Fig. 36). Her painting themes come from Thompson's personal life experiences and these works reflect her spiritual and psychological issues in her life.

Thompson has depicted the process of her Grisaille painting steps in her personal website (Thompson, 2006):

- Tracery-line-work-is applied with a script brush following the cartoon placed under the glass;
- Apply the matt with a badger brush;
- Work the matt „subtractively" with dry bristle brushes;
- Put the finished section into kiln to „fire" (1100 Degrees F.);
- The sections are laid out to see the composition;
- Watercolours are applied to decide which enamel colours to use;
- Transparent vitreous enamels are applied, large areas first (Fig.37);
- Some of the colours will change significantly when are fired, and now the painting is complete (Thompson, 2006).



Fig 36: Cappy Thompson, *Dreamscape: Three Aspects of My Soul*,
vitreous enamels reverse-painted on glass, mounted to brushed metal panel 23cm x 29cm, 2009.



Fig. 37: Cappy Thompson, *I Was Dreaming of Spirit Animals*,
Vitreous enamels, reverse-painted on blown glass, 11.5cm x 16cm x 16cm, 1997.

Dana Zamecnikova was born in Prague in the Czech Republic in 1945 and studied architecture at Prague Technical University from 1962, and subsequently trained in design at the Prague Academy of Applied Arts. This training was important to the development of her later works (Bazzo, 2007). After 1978 she chose painting and engraving onto sheet glass to produce her narrative artworks. Klein (1996) says that *"She expresses herself fully by means of lively painted figural subjects"* (Klein, 1996, p.223). She has used techniques such as acid etching, painting and digital enamel to create her works and installations (Fig. 38). *"...to create multilayered glass panels on which she inscribes her complex, fractured stories of human relations. Past and present, good and evil, are often put in contraposition, creating a conflict between strict rules and hasty layers of events and information"* (Bazzo, 2007, p.9). She has created a very personal approach towards the sculptural properties of glass and the approach has brought a new style to the Czech glass movement (Chambers, 1985).



Fig. 38: Dana Zamecnikova, *She Sinks More And More Deep*, Musée des Beaux Arts, Rouen, France, 140x 90x 322 cm, 1990.

In her more recent works, she changed the drawing style which became more sketchy and graffiti-like, and splashed colour has been applied to the distressed surfaces (Fig.39). The works have become „slightly dirty“, „slightly human“ (Frantz, 1997). It forces the viewer to imagine more about the provided story (ibid).



**Fig. 39: Dana Zamecnikova, *Devil Versus Angels*,
painted glass, metal, acid-etched, digital print,
73cm x 80cm x 16cm, 2000.**

Dana usually works on sheet glass, and has not tried casting or blowing glass. In an e-mail interview Dana told this author that:

“I change my approach to paint on glass with time, from oil paint, or outdoor paint color /cold/on rough surface to digital print on glass to silk screen on glass and over paint with enamel and again fire. And scratch or work with diamond point. And I really work on glass sheet and don’t have any experience with painting on casting or blown glass. My approach is always just a little different, work by work. Even I was work with plexiglass” (Zamecnikova, 2016).

2.2.2 Case study: Western studio-based glass printing

Western glass printing technology can accurately reproduce graphics on glassware or sheet glass. Glass printing has been widely used in industry, architecture and art performance. It is convenient and suitable for fast, efficient production and has proved popular within the rapid development of contemporary society.

Artists commonly incorporate glass printing in their personal work. There are many well-known contemporary glass printing artists in western glass making and this section introduces Kevin Petrie, Jeffrey Sarmiento and Kathryn Wightman.

Kevin Petrie (b. 1970) is an author, practicing artist and Professor at the University of Sunderland in UK, where he is a team leader for arts in the Faculty of Arts Design and Media, and works in ceramics, glass, drawing and painting. In his early career, Kevin studied Illustration, Ceramics and Glass respectively at the University of Westminster and the Royal College of Art and received his Ph.D. from the University of the West of England, Bristol. He is well-known for the creative use of „blending“ printmaking and glass/ceramics and has developed new processes in printmaking and disseminated the new practices internationally. In addition, his two books on the subject, „*Glass and Print*“ and „*Ceramic Transfer Printing*“ have contributed to the increased number of artists learning „blending“ printmaking. He has also contributed to other books and published articles in many key journals (NGC, 2016). As a glass printing artist, Kevin Petrie has made many wonderful works. Below Petrie describes a work called *Cell of Myself* (Fig. 40):

“ Here, I developed an interest in glass, and combined my knowledge of printing with an emerging understanding of kiln-formed glass to produce a group of sculptural head and mask forms with enclosed printed imagery. The printed images represented internal thoughts, memories and feelings” (Petrie, 2006, p.8).



Fig. 40 Kevin Petrie, *Cell of Himself*, UK, 1995, kiln-formed glass, printed masks, 45 x 50 x 50 cm.
Collection of the Parallel Media Group, London.

Petrie further describes that “*The development of integrated glass printing enabled me to bring together my interests in drawing, printing and object-making to create celebratory objects. The fact that the pieces are translucent adds a dimension not possible with other media*” (Petrie, 2006, p.78):

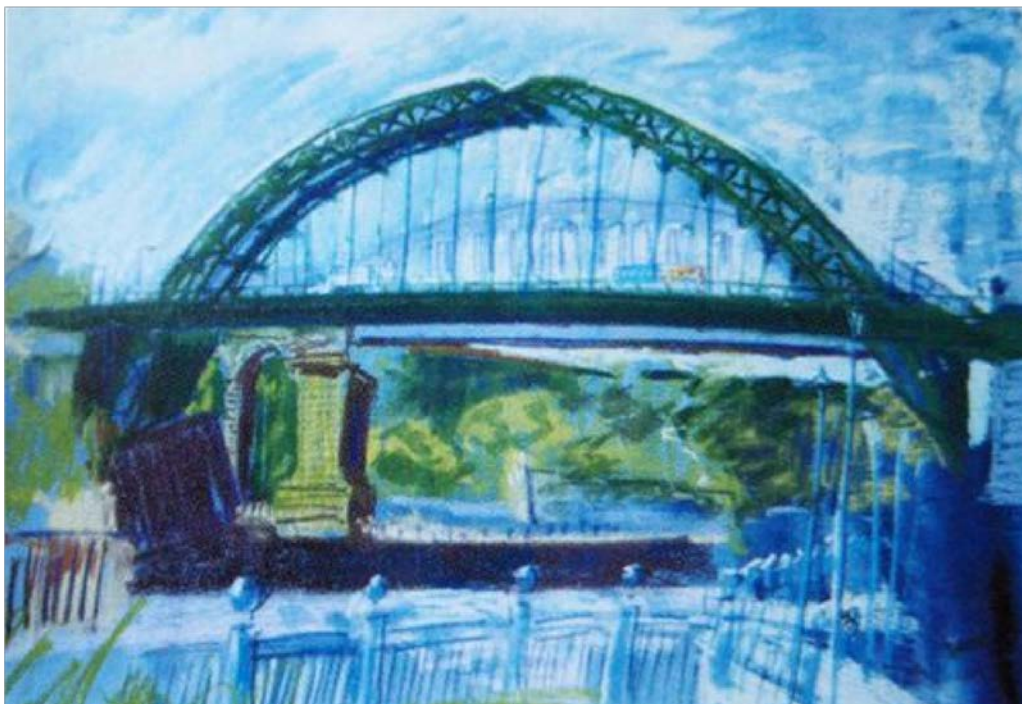


Fig. 41: Kevin Petrie, *Wearmouth Bridge*, glass-print, 2004.

A drawing printed onto glass gives the artist an opportunity to create a different dimensional artistic effect. Transferring the drawing to the glass brings the former to life as light passes through it and the works are “brought to life”; it can give a sense of passing time, and add a contrast to “fixed moment” (ibid). With the artist’s idea(s) presented in the finished work, his personality can shine through. For this research, Petrie’s ideas have inspired this author to combine personal painting with personal glass sculpture.

How to naturally create a new kind of inside painted glass artwork is the key point in this research (Chapter 5) and although the methods in my inside painting are different from those of Petrie, the aim of seeking a suitable style for new creations is similar.

Jeffrey Sarmiento (b.1974) is a Filipino-American, a printing glass artist, and currently resides in Newcastle, UK. His PhD research was finished at the University of Sunderland in 2011 and is currently the M.A. leader in glass there. His works display an aspect of multi-culture. Jeffrey, in his personal website profile, has said,

“I am a maker of intricate glass objects. With them, I attempt to create connections within complex histories. It is the material that manipulates ways of seeing. I develop methods of combining glass with the graphic image, constructing layers of information and embedding the image within the object (Fig. 42). The result is quite literally the fusion of form and content.” (Sarmiento, 2013).



Fig. 42: Jeffrey Sarmiento, *Encyclopaedia III*, printed fused and polished glass, 108cm x 21cm x 15 cm, 2013.

Sarmiento pursues the fusion of form and content which should be combined perfectly, and therefore the artwork could represent the artist's ideas and feelings.

This is further discussed in Chapter 3 (see 3.1).

In Sarmiento's works he explores cultures from the perspective of a foreigner, but whilst he exposes the „foreign“ within familiar histories of other people, his creative practice remains autobiographical. His artworks express himself and show the way he sees the world around him through printing on glass (Sarmiento, 2013). In his works the vivid pictures are transferred onto glass and viewed through the transparent medium. From different viewing angles the pictures can usually present different visual effects because of the unsmoothed glass skin (Fig.43). This characteristic has been applied to my inside painted glass sculptures.

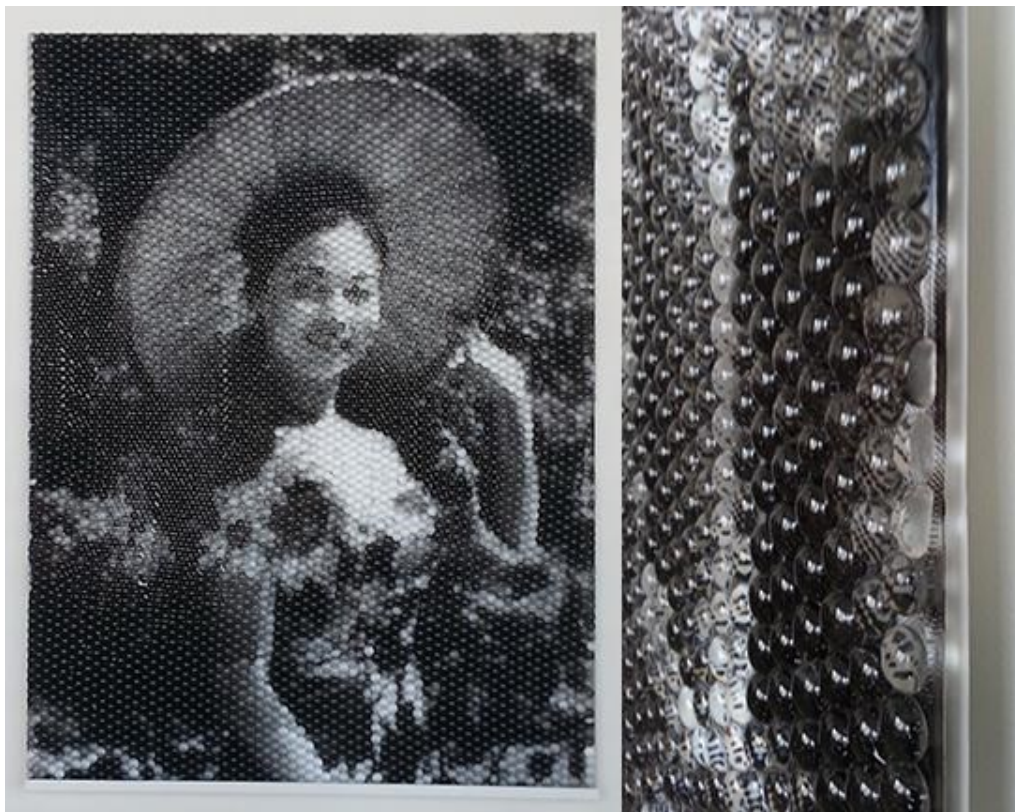


Fig.43: Jeffrey Sarmiento, *Muse*, printed and kiln-formed glass, 100cm x 75cm x 2cm, 2013.

Kathryn Wightman (b. 1983) is a British glass artist who is currently a lecturer on the glass program at Whanganui Glass School in New Zealand. She completed her PhD research at the University of Sunderland and looked at „*The development and application of creative printmaking processes for the decoration of blown glass*“ (Wightman, 2011). In her research she demonstrated how to combine printing decoration and blown or cast glass together to create a personalized artwork (Fig. 44). She has developed a strong visual aesthetic and has integrated digital technologies and hand-based skills into her practice successfully (Wightman, 2012).

Wightman’s works have evidenced a fascinating process and explored an illusory imagery. She mimics textile surfaces through utilizing glass, which challenge the viewer’s sense of reality. For creating multiple layered compositions, she deconstructed hybrid decorative patterns where the patterned forms grow from the surface of the glass in each layer to stack for added depth (Wightman, 2012) as in Figure 45 below. This work was produced using the process of direct screen printing Gaffer glass (highest possible standards to the quality control of coloured glass) powder onto a kiln shelf then fusing it together in a kiln (ibid). This method has inspired me to create some artworks using the fusing and slumping techniques with inside painting effects added (see 5.6 & 5.7).



Fig. 44: Kathryn Wightman, *Forgive Me Father*,
Digitally-printed transfers embedded into the layers of blown glass cylinders, 45cm x 13cm x13cm,
2006.



Fig. 45: Kathryn Wightman, *A Little Bit of Lace*, Screen-printed
and kiln-formed glass powder, 30cm x 30cm. 2010.

2.2.3 Case study: Western calligraphy

Traditional inside painting of Chinese snuff bottles is always combined with calligraphy. Calligraphy is the root of Chinese painting, and remains an inseparable part of contemporary Chinese painting (Yee, 1955). In this research, the new form of inside painting is always companied by calligraphy.

Albertine Gaur (1994) suggested that “*calligraphy is, to a large extent, an expression of harmony, as perceived by a particular civilization. The calligrapher is in harmony with his script, his tools, the text and his own spiritual heritage*” (Gaur, 1994, p.19). In this description Gaur suggests that, similar to Taoist thought, for calligraphy, everything was in „Harmony“. “*All calligraphy is writing but not all writing is calligraphy*”

(Thomson, 2003, p.12). In contemporary use, calligraphy can cross boundaries in different art forms, but its aesthetic basis remains.

Manny Ling is a contemporary Western calligrapher. He is a Senior Lecturer in Design at the University of Sunderland, UK, where he is responsible for Postgraduate Studies in Design. He is also the Director of the International Research Centre for Calligraphy, the IRCC (www.ircc.org.uk) at the University (Ling, 2012). Ling completed his PhD. research in 2008, the topic being *Calligraphy Across Boundaries* (Fig. 46). In that research Manny displayed some aspects about the connection of Western and Eastern calligraphy and applied the Taoist idea of „Harmony“ and the ideas inspired by the Taoist principles of „Ch“i“, „Yun“, „Sheng“ and „Dong“.

“Ch“i can be cultivated through different means, such as meditative practice of writing East Asian calligraphy (Davey, 1999) or by practicing the Taoist notion of „stilling the heart“ (Sze, 1959) and „Hsin Shou Hsiang Yin“, the mind and hand co-ordination (Ch“en, 1966)” (Ling, 2008, p.2).



Fig. 46: Manny Ling, *Letterscape1*, digital calligraphy, 1999.

Ling has recently investigated contemporary calligraphy and has applied different media to create a kind of new style - „Drawing calligraphy“. This method applies the techniques of traditional „pyrography“ (a kind of decoration of wood or metal by improvised burning) to display a free style calligraphy, using a hot glass ball to write“

on a piece of paper. The pontil and the glass ball form a large „writing brush“ to burn the paper giving a charred effect. The charred parts of the paper presented the „ink“ strokes (Fig. 47).



Fig. 47: Manny Ling, *Drawing Calligraphy*, hot glass, paper, TV screen, 100cm x 60cm, 2015.

Western contemporary calligraphy has been, and is, very different from traditional Chinese calligraphy, allowing for individual emotional expression, providing freedom of action. This has inspired this researcher to carry out tests using the fusing method to produce some „closed“ inside calligraphy works (see 5.6).

2.2.4 Western glass printing compared to traditional Chinese inside painting

These techniques represent two totally different methods in art making: during glass printing the painting process is finished before applying to the glass and the final process uses a final copy of the original art. However, the effect was very life like (Figs. 48 & 49).

With traditional Chinese inside painting the creative component was present in the process of painting itself. It is adaptable: if some new ideas come during the work, inside painters can change the picture, and can adapt according to the shape of the glass model in order to copy or create pictures (Figs. 50 & 51).



Fig. 48: Novelty glass ball with paper prints, twentieth century, Tyne and Wear Museums 2006.



Fig. 49: Per B. Sundberg, Form-Animal faces, blown glass with printed transfer

early Sweden,



Fig. 50: Sijia Wang, *Ba Wang Bie Ji*, crystal, photo copy, 2013.



Fig. 51: Guoshun Fu, *Tian Shan Road*, crystal, H.7.5cm, 2008.

2.3 Traditional Chinese painting, calligraphy and Taoism

Taoist thought has deeply influenced Chinese culture and it is the root of Chinese art. Chinese painting and calligraphy have been the core art forms throughout the whole development of Chinese civilization. The delicate and strong lines of calligraphy are

full of the Taoist thought of the balance of „Yin“ and „Yang“ (see 1.2.1). Chinese paintings absorb the Taoist idea of „Tao follows Nature“, „Nature and Humanity is One“ (Lao, 1999). In other words, Heaven, Earth and Life should be in symbiosis, and people should follow the rule of „Nature“, a principle that has guided Chinese painters.

2.3.1 Traditional Chinese paintings

From early 20th century, in order to differentiate it from Western painting techniques and other foreign painting this traditional technique has been termed „Chinese painting“ (Shui, 1986), and it refers to painting that was performed by making marks with a brush on silk, rice paper or scroll with Chinese pigment and ink. According to its subject matter it can be divided into figure painting, landscape painting and flower and bird painting (Liang, 2002).

“It was towards the middle of the first millennium B.C. that the Chinese began to develop the naturalistic approach to art that painting was eminently suited to express” (Swann, 1958, p.13). Chinese painting has a long history, as far back as 2000 years ago during the Warring States Period (475 – 221 B.C.) when painting began on silk – „Bo Hua“ (Wang & Zhang, 2011). These early works formed the basis of Chinese painting in which the use of „line“ is the dominant method (Fig. 52).



Fig. 52: Figure, Dragon and Phoenix,

silk, ink painting- BoHua, 28cm x 20cm, Warring States Period (475-221B.C.).

By the end of the 19th century, nearly a century after the introduction of Western art forms and artistic concepts to China, national traditional painting had accepted the foreign culture. Hence different genres of Chinese painting emerged, and famous artists appeared, one after another. The situation tended towards a state of constant reform and innovation. In more modern Chinese painting, many artists adhered to, and merely imitated, the basic traditional style, having inherited the skills and forms of previous generations.

However, some traditional painters tried to introduce some changes as to form their own painting styles. The first president of the Central Academy of Fine Arts in China, Xu Beihong (1895-1953), had said:

“Keep the good of traditional ones, follow the in danger of extinction, change of the poor, adding to what not enough, melting the good of western painting” (Liao, 2010, p.66).

Chu-tsing Li (1979) stated in *Trends in Modern Chinese Painting* that “Xu Beihong , because of a deep interest in the academic painting in Europe, strongly criticized the traditional school for being too imitative of ancient masters ” (Li, 1979, p.93). The first president of the Chinese Academy of Art, the artist (in Hangzhou) Lin Fengmian (1900-1991) suggested that artists should “*mediate between Chinese and western art, create arts of times*” (Zhu, 1996, p.14). Young artists at this time studied Western painting in Paris before they came back to teach in China. Their painting techniques had therefore absorbed Western painting elements (Fig. 53 and Fig. 54). “*During the twentieth century, students brought back many of new art theories from Japan and Europe*” (Li, 1979, p.4).



Fig. 53: Xu Beihong (1895-1953), *Eight Horses*, rice paper, ink painting, 59.74cm x 159.89cm, 1934.



Fig. 54: Lin Fengmian, *Beautiful Woman*

rice paper, mineral colors, 34cm x 34cm, collected in China, Duo Yun Gallery.

Traditional Chinese painting was developed step-by-step into a more mature art style and formed a very important part of Chinese traditional culture. This general development was incorporated into snuff bottle inside painting which itself became seen as a typical representative form of „Chinese painting“. After all, the tools and materials were essentially the same, incorporating the „writing brush“ and its use only

differed from medium to medium in that the inside painting brush needed a curved end to the brush to facilitate painting beyond the narrow neck of the bottle. Inside painters still needed to practice and gain skill and, perhaps as importantly, become comfortable with the aesthetics of painting, by first practicing on rice paper and other flat media.

2.3.2 Chinese calligraphy

"In China calligraphy was appreciated as an art as early as the second century A.D.

With appreciation there arose a demand for calligraphy among connoisseurs and collectors" (Fu, 1977, p.3).

Chinese calligraphy is one of the most typical art styles that can embody the beauty of Oriental art and culture. Calligraphers use it to show their own personality and temperament, with their aesthetic thoughts and tastes being derived from the philosophy of Taoism. The possible first exponent of Taoist thought, Laozi (老子), in his *Tao De Ching* (道德經) had emphasized the idea of balancing the "dotted and solid", "weak and strong" (Lao, 1999, p. 43). Calligraphers pursued this theory in order to imbue their calligraphy with their individual personality and spirit in order to find great liberation and freedom in their work. An example of a highly praised calligrapher from the East Jin Dynasty (317-420 A.D.) was Wang Xizhi (王羲之), noted for his good structure and free style in writing (Fig. 55).



Fig. 55: Wang Xizhi (303-361), *Orchid Pavillion Series*, rice paper, ink calligraphy, 71.6 cm x27.5 cm.

Chiang Yee, a Chinese-American scholar pointed out that *"In China, anything that can be called art work, more or less, has some contact with calligraphy. We believe*

calligraphy to be on top of other arts, it is the first place. If there is no knowledge or appreciation of calligraphy, it is impossible to really understand Chinese aesthetics" (Yee, 1955, p.45).

Chinese people often say that calligraphy and painting are homologous (Hong, 2000), which perhaps refers to the Chinese characters produced from imitating the „originals“,

such as Moon , Sun  and Mountain .

The brushwork is divided into three steps: starting, wielding and collecting. In the basic function, there are two kinds of aesthetic feelings. One is the Qi (氣 - the „will“, the „energy“), representing the momentum of masculine beauty. Another is the Yun (韻 – the ‘emotion’, the ‘rhyme’) representing the charm of feminine beauty (Ling, 2008). The overall style and performance by painting and calligraphy was therefore the „outpouring“ of Qi and Yun.

Painting contains lines, usually colours (but not always) and images, whereas calligraphy only has abstract lines. Hence, the Qi and Yun in calligraphy lines theoretically should be much stronger than those in painting.

The similarity between Chinese calligraphy and painting in terms of principles, techniques and forms is further enhanced by them being mutually complementary. George Rowley talked about the extensive and profound relationship between them:

“Throughout their development the two arts have been twins and no one can really understand Chinese painting until he has practiced calligraphy and has known the feel of the Chinese brush when it moves like liquid fire and has experienced the fascination of Chinese ink when it creates a living realm of values” (Rowley, 1959, p.43).

Chinese art has produced a large number of eminent artists who excelled at both painting and calligraphy, such as Qi Baishi (齊白石) (1864- 1957) who was a master in Chinese painting and calligraphy in China. He was famous for his ink paintings of shrimps (Fig. 56).

Again this refers back to the previously discussed Taoist idea of Yin (陰) and Yang (陽) (see 1.2.1) where the idea is one of integrated art forms influencing each other imitating the harmony of life and nature.



Fig. 56: Qi Baishi, *Shrimp*, rice paper, ink painting, 1951.

Chinese painting and calligraphy is the basis of inside painting. Many snuff bottles exhibiting inside painting are the perfect combination of calligraphy, painting and signature. Starting and subsequent wielding of the brush is very similar to paper painting. In fact inside painting is simply a miniature of Chinese painting and calligraphy. It is a comprehensive art which combines materials, calligraphy and painting in complete harmony. A good example of inside painting typically has good design, a wonderful picture, and exhibits the best skills of using brush and ink, showing a profound artistic and aesthetic grasp of painting.

In practice, paper painting artists typically draw pictures from top to bottom, but inside painting exponents work in reverse to this, painting from bottom to top (Figs. 57 & 58). The two pictures were painted by inside painter Zhang Luhua, who is known to take a greater length of time on his paper painting and calligraphy than that spent in his inside painting (Wang, 2014).

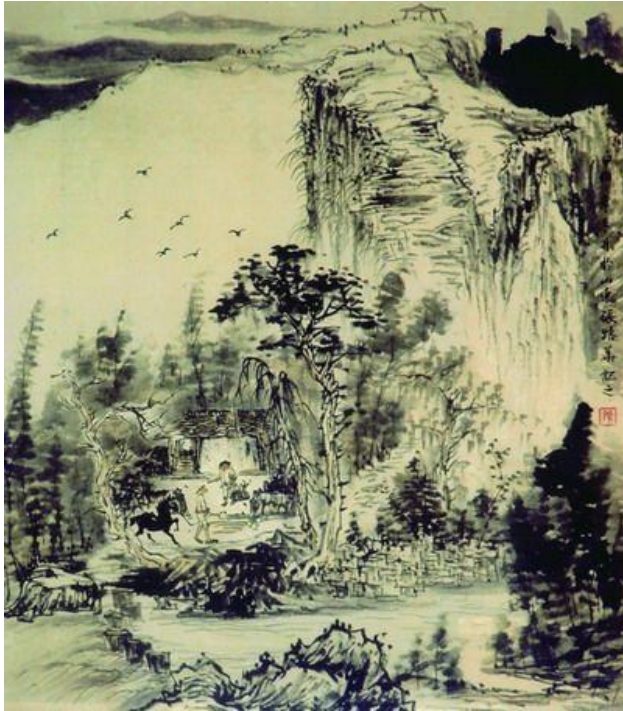


Fig. 57 Zhang Luhua, *Taihang Mountain*,
paper ink painting, 2007.



Fig. 58 Zhang Luhua, *Taihang Mountain*,
inside painting, 2007

2.3.3 Thoughts of Taoism

Taoism is a philosophy of the Pre-Qin period (770-221BC). Laozi (老子) (Fig. 59) and Zhuangzi (莊子) were the principal exponents. The *Tao Te Ching* (道德經) was written by Laozi, a book that created a precedent in Chinese ancient philosophy. Taoist thoughts advocated that everything should defer to the natural balance of nature. It advocated calm, „non-action“, in modern parlance: „going with the flow“ (Lao, 1999). Taoist thought took a dominant position in traditional Chinese culture and deeply influenced the formation of traditional virtues in the Chinese nation, such as having an open mind, tolerance, humility, calmness, simplicity and helpfulness, the opposite of striving for fame and wealth. Because the Taoist culture was continually being carried forward in China, it enabled the ancient culture of the Chinese nation to endure, while becoming more and more prosperous (Ge, 1991).



Fig. 59: Laozi, the Founder of Taoist thought, about 571-471BC.

Joseph Needham, the British modern biochemist and an expert in the history of science and technology has pointed out that

- The characteristics of the Chinese, many of the most fascinating places, all come from the Taoism. Without Taoism, China just likes the tree without roots.
- Chinese culture is like a towering tree, with the towering tree roots in Taoism (Needham, 1990, p.178).

Chinese famous historian Lu Simian (吕思勉) has said that

“Taoism was the guiding principle of the other schools, the other schools were only the parts, Taoism was the all; other schools explained the surface phenomena, Taoism grabbed the essences” (Lu, 2010, p.156).

Taoism is a Chinese native religion and Laozi is the founder. His philosophy and the Taoist school are recognized for making a vitally important contribution to the development of ancient Chinese ideology and culture. Introduced to Europe in the 14th century it profoundly European culture and thought (Zhu, 2006). Taoism acted on the national cultural psychology, on customs, fields of social politics and economy

and on science and technology, such as in the invention of gunpowder and the traditional Chinese medicine (Qing & Tang, 2006). Taoist culture is an important part of Chinese traditional culture, and its influence on Chinese society is enormous and far-reaching. The influence of Taoist culture in Chinese music, painting, literature, sculpture and construction (Fig. 60) has occupied a dominant position.



Fig. 60: Taoist palace of Wu Dang Mountain, 5.45m high, 1417.

The Taoist idea of everything being in balance has guided Chinese artists to achieve their spiritual enjoyment in painting. Chinese painting, together with Taoist thought deeply influenced traditional Chinese culture. The relationship of Chinese calligraphy, painting, Taoism, and inside painting is displayed in Table 7.

Table 7: The relationship amongst Chinese calligraphy, painting, Taoism, and inside painting

Type	Function	Relationship	Guide line	The affect to Chinese inside painting
Calligraphy	The art of line to practice aesthetic accomplishment, „Qi“ and „Yun“	the foundation of Chinese painting	Taoism	For the inside calligraphy and inside painting building a solid foundation

Chinese Painting	Training of line, color, „Qi” and „Yun”	the expanding of calligraphy art	Taoism	For the inside painting building a solid foundation
Taoism	Guided the Chinese calligraphy and painting to develop	the guiding thought of calligraphy and Chinese painting	Lao Zi and Zhuang Zi's thoughts	Guided the developing direction of the traditional Chinese inside painting

2.4 Personal art practice using inside painting on glass

During the past ten years, this author has been thinking about how to develop the traditional inside painting of snuff bottles and has completed many works which relate to this research. Fifty large bottles decorated with inside printing have been blown since 2007. Constraints on time for my M.A. graduation exhibition meant that the quicker process of printing was used. Inside painting was put off to the future (Figs. 61 & 62).



Fig. 61: Jianyong Guo, *Aged Wine*, 50 bottles with printing inside, displayed in Beijing, Central Academy of Fine Art, 40cm x 1800cm x 50cm, 2007.



Fig. 62: Jianyong Guo, *The Old Charcoal Seller*, part of the *Aged Wine* works, glass, printing, 40cm x 15cm x 15cm, 2007.

The author has devoted many years to practicing painting and sculpture, and reached a high level of accomplishment. This has been the foundation underpinning this current research.

Exposure to training in Western-style painting methods, fostered at the Academy of Fine Arts in China, has resulted in a subtle absorbance of the essence of Western ideas. Western contemporary glass painting, glass printing and calligraphy has inspired this author's artistic work. It has generated a feeling of freedom and creativity of spirit in glass art.

This research proposed to blend the author's personal sculptures and paintings into new glass works in order to create a new model for contemporary glass art. During the process the advantages of traditional Chinese inside painting and Western glass painting, printing and calligraphy were combined to display a new form of inside glass paintings.

2.5 Summary of Chapter 2

This chapter mainly analysed the contexts which composed and impacted the new form of inside painting (Fig. 63).

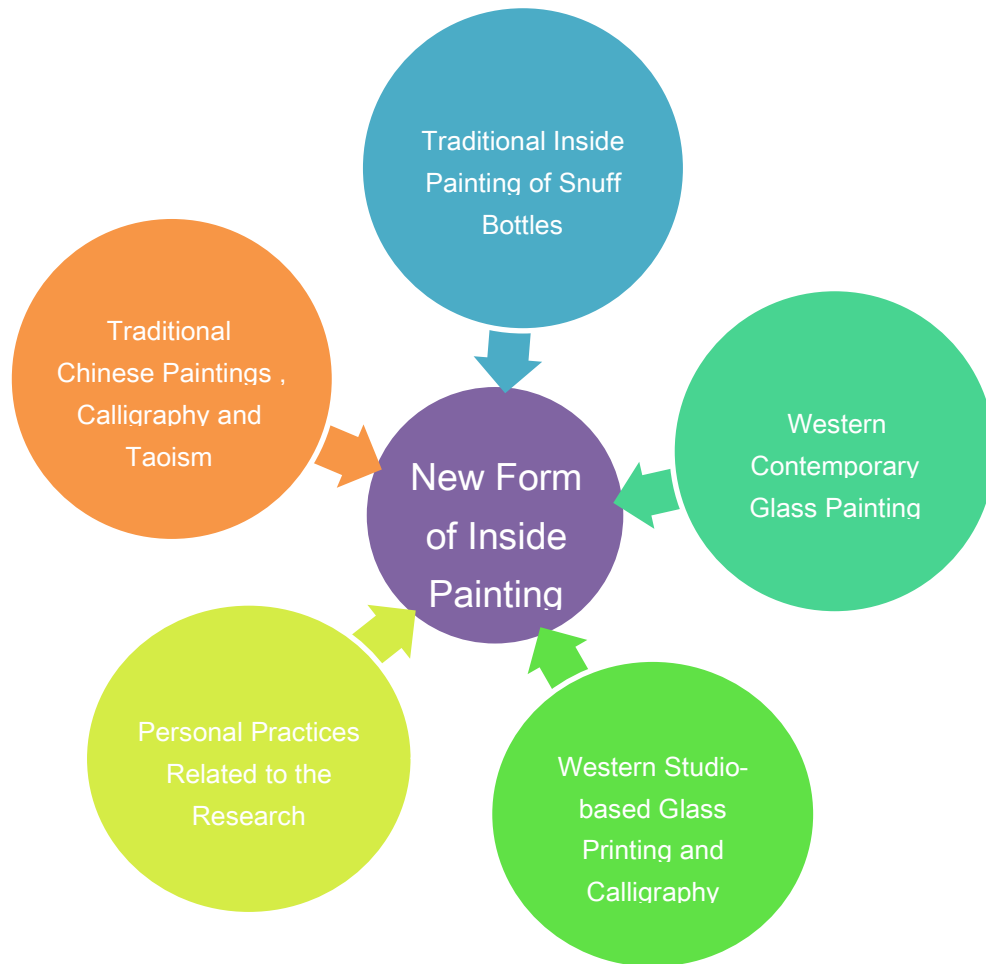


Fig. 63: The five components of the new form of inside painting.

Traditional Chinese painting is the foundation of inside painting of Chinese snuff bottles. They are similar in style and aesthetic concept. Calligraphy is the basis of Chinese painting, because they use the writing brush to create the work.

For the pictorial and calligraphic arts silk or paper is a support, the brush is a tool and the ink is a medium (Weng, 1978). In order to grasp the skills of producing calligraphy, practice using the Chinese writing brush is essential.

Overall, Taoism is the root of Chinese traditional culture. The way of thinking in Taoism dominates the thinking of Chinese painting and calligraphy (Sze, 1957). The harmony of „Yin“ (陰) and „Yang“ (陽) controls all Chinese culture orientation (see 1.2.1).

The western approach to glass art is very different from Chinese inside painting. The author is inspired by a free approach to creating artworks, especially influenced by Western contemporary glass painting, glass printing and calligraphy, which show the emotions and ideas of the artists. Such characteristics run counter to Chinese traditional inside painting, where the emphasis is usually focused on painting techniques (see 3.3.2).

Chapter 2 has set the context for the objectives of the creation of a new style of inside painting of contemporary glass sculptures for both inside painting of Chinese snuff bottles and contemporary Chinese academic glass teaching. All the elements that related to the forming of a new style of inside painting have been listed.

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Chapter 3 - The limitations of traditional inside painting on glass

There have been great improvements in snuff bottle inside painting techniques, in terms of drawing skills in the last two hundred years. But, with changing times its restrictions have become more obvious, and in artistic forms and content. Subsequently any improved techniques used in traditional inside painting of Chinese snuff bottles could be introduced into contemporary Chinese academic glass art teaching.

3.1 The limitation of the glass form of the traditional inside painted Chinese snuff bottle

„Art content“ refers to the choice of subject matter, theme, figure(s), environment, and plot of the proposed artwork. Art content and form are mutually dependent and cannot be separated (Chai, 2009). An important aspect in three-dimensional art is taking into account the outside shape itself of an artwork, which therefore tends to suggest to the artist what is needed to produce the final piece. Painted snuff bottles increasingly lost their original purpose of holding snuff, and have become collector pieces of steadily increasing value.

The art „form“ of the inside painted Chinese snuff bottle is merely two flat surfaces which naturally impose certain limitations on the artist. The basic form of the snuff bottle has not changed significantly, essentially keeping the same original shape. Inside painters only have to paint or copy pictures onto the inside walls of the bottles (Fig. 64). In this section some of the important stages in the developmental process of the art forms of inside painted snuff bottles in the past two hundred years are discussed. Through the analysis of these stages, the limitations in glass form of traditional Chinese snuff bottles clearly emerge. In order to reduce or avoid these limitations, this research offers methods to develop traditional glass inside painting in a range of forms.



Fig. 64: Guangqing Zhang, representative of Lu Inside Painting School, painting in a snuff bottle, 2013.

3.1.1 The glass form in early beginning of inside painted Chinese snuff bottles

Traditional Chinese inside painting began in the early 19th century (see 1.2.1), and the art form of snuff bottles has not changed significantly, with some forms lasting to today, even keeping the original shapes. Figures 65 and 66 show that the round shape from 1809 to 2007 is repeated.

Inside paintings were about traditional landscapes painting and calligraphy (Altman, 2012).



Fig. 65: Rock crystal with coral stopper, 1809, bequest of Benjamin Altman, 1913



Fig. 66: Fengyi Su, crystal with coral stopper, 2007.

3.1.2 The glass forms of inside painted Chinese snuff bottles in the late 19th century

Inside painting of Chinese snuff bottles was developed into a stage of high skill in the later 19th century. The most famous painters were Leyuan Zhou (周樂元), Shaoxuan Ma (馬少宣) and Zhongsan Ye (葉仲三) (Liu, 2011).

Dates of his birth and death are unknown but Leyuan Zhou left many inside painted snuff bottles, and examples can be found in the Beijing Imperial Palace Museum, the Metropolitan Museum of Art in the USA, and in other collections outside of China. Several of Leyuan Zhou's works (such as Figures 67 & 68) were collected by the English collector George Bloch (Mary & Bloch, 1994). He usually chose rectangular snuff bottles for his inside painting but, in essence, the shape is merely the elongation of the round shape from the early 19th Century.



Fig. 67: Leyuan Zhou, crystal, inside painting, 8cm, collected by George Bloch, 1892.



Fig. 68: Leyuan Zhou, rock crystal with tourmaline stopper, gift of Heber R. Bishop, Metropolitan Museum of Art, New York, 1887.

Shaoxuan Ma (1867- 1939) created many examples of this art form and most of his works were collected by Western royal families, nobility, and museums and private collectors outside China (see 2.1.3). The form of his snuff bottle was a little different: the two „oblong“ bottles were joined together, but the „difference“ still used the same shape of typical glass bottles (Fig. 69). The traditional inside painters have little say in the shape of the bottle.



Fig. 69: Shaoxuan Ma, crystal double bottle with agate stopper, late 19th- early 20th century. Bequest of Mrs. Fanny Shapiro, Metropolitan Museum of Art in New York.

Zhongsan Ye (1869 – 1945) used themes that were based upon some illustrations from traditional Chinese novels (see 2.1.1). He excelled at figures, flowers, birds and fishes (Figures 70 & 71). The bottles he used for inside painting were similar to the early 19th century snuff bottles.



Fig. 70: Zhongsan Ye, Hair crystal with coral stopper, 1920, Bequest of Mary Stillman Harkness. Collection of the Metropolitan Museum of Art in New York.



Fig.71 Zhongsan Ye, crystal with agate stopper, 1925, collected by George Bloch. Stillman Harkness.

3.1.3 The glass forms of Chinese inside painted snuff bottles in the middle of the 20th century

By the middle of the 20th century the skills developed for inside painting had become mature, but the form of the snuff bottle retained the original style (Figures 72 & 73).

The painters continued to put traditional Chinese painting first and foremost.



Fig 72: Xiao Wu, cast glass with agate stopper, 1936.
Victoria and Albert Museum, Museum NO. FE461, 2007.



Fig 73: Xisan Wang, crystal with jade stopper, 1958.

3.1.4 The glass forms of inside painted Chinese snuff bottles in late 20th century and early 21st century

By the year 2000 a high degree of skill had been attained by inside painters. To some extent their work exhibited some differences to previous examples (Figures 74 – 77 below). Figure 74 has no shoulder on the upside of the bottle, this looks more concise. Figure 75 is a special shape, combining calligraphy and landscape painting in a round and square bottle. Figure 76 is an artificial crystal cobble, keeping the original texture, and adorned deliberately with an antler-like coral stopper. Figure 77 is a series of glass balls, the inside spaces being hollowed into a round ball, too.



Fig. 74: Yi Ding, crystal, ink landscape, 1995.
and calligraphy, 2000.



Fig. 75: Guoshun Fu, crystal, landscape



Fig. 76: Yifeng Su, artificial crystal with coral stopper, 2007.



Fig. 77: Inside painting of glass balls, Wang Xisan Inside Painting Museum, 2015.

The above pictures show that the bottle forms and the inside painting contents have not changed significantly between the early 19th century and the present time.

3.2 The limitations of inside painting subject matter and content

There are two components in the content of an artwork: one, which can be considered as the „subject“, is that aspect of life around him that the artist displays. The second is the artist's understanding of the relationship between the subject on display and his thoughts and feelings – the „theme“ (Chai, 2009). Typically, snuff bottle artists called upon traditional Chinese subjects: figures, landscapes, flowers and birds, calligraphy, even seals.

Traditional inside painters rarely considered limitations imposed by the genre in their painting. But, the largest issue is the „gap“ between the content of the painting and the painter's feelings and views. The painters pay little attention to their own artistic expression, but focus instead upon the mastering of the technique necessary for inside painting. The ability to accurately „copy“ meant that the painters would eventually become skilled „craftsmen“ (See 3.3.2).

3.2.1 The lost of individuality in traditional inside painting

Artistic personality is the unique performance of an artist's aesthetic consciousness and individuality displayed during the artistic creation. His personal aesthetic feeling, and artistic understanding of the world in which he lives, as well as the corresponding aesthetic in pursuit of expressing personal styles and methods, constitutes the most basic aspect of the artist's personality (Ding, 2010). The artist's understanding of life and his unique artistic personality should be expressed. Art represents the soul of the artist.

For this research the researcher visited several of the most well-known traditional inside painting masters: Guangqing Zhang (張廣慶), Xisan Wang (王習三), Zenglou Zhang (張增樓), Shouben Liu (劉守本) and Yining Lai (賴一寧). They all thought that reform of inside painting was necessary, but they did not know how to do it (see Appendix 3). They also thought that although the style of inside painting had lasted nearly two hundred years, the techniques could keep improving, but only if the form of snuff bottle itself changed, but then it would not be a „snuff bottle“ anymore. They wanted to keep the traditional style of the bottle.

These artists also did not know how to introduce inside painting to contemporary glass art: they had no idea about how to do it. Their opinion was that change of shape would not be accepted by collectors. It was important that traditional painting should be continued if collectors were to continue to desire these bottles.

However, a true artist should closely consider how to integrate himself in his works, how to create artworks with true feeling, and how to let the work speak for the individual artist. Thus, in the world of traditional Chinese snuff bottle inside painting this author believes that, under the influence of these kinds of masters, their apprentices cannot discover their own true feelings in art. How to personalize traditional Chinese inside painting needs to be addressed, perhaps influenced by contemporary art. Similarly inside painting in a different context form and way could be introduced into contemporary Chinese university glass teaching.

3.2.2 Economic issues impacted on the development of inside paintings The social status of Chinese inside painters was very low in Qing dynasty (1616-1912) and accordingly their level of personal income was poor (Cao, 1996). Chinese snuff bottles, exhibiting the beauty of inside painting, became attractive to the Chinese ruling classes. Therefore, in order to improve their position and thus their income, inside painters worked to gain popularity with collectors. Thus, economics and art became closely linked. Supply and demand economics led to a plentiful supply of traditionally-decorated snuff bottles at the expense of individual artistic flair.

In order to introduce traditional techniques of inside painting into contemporary Chinese academic glass art it should be treated as a means of free expression, and the negative effects of economic interests should be removed. In this research, I have researched the subject in four main academies of fine art in China (Tsinghua University Academy of Art & Design, the China Academy of Fine Arts, Shanghai University Academy of Fine Arts, and Shandong University of Art & Design) to find out how many glass artists and art students were interested in inside painting of glass sculptures (see 4.3). The result is they all hope to undertake inside painting course. The artists and students in universities want to develop their self-expression.

3.3 The limitations in the process of developing of inside painting

Improvements to inside painting have only been seen as the maturing of traditional painting techniques. The art form itself has remained unchanged. Many other factors, beyond economics have hindered development. However, the real reason for its existence – a small container to contain „snuff“ – has been lost, yet the bottle shape and the content of the painting have not changed.

3.3.1 The teaching style that led the traditional inside painters to be craftsmen

“The same piece of work that can come out of the hands of an artist, can also come out of the hands of craftsmen, but the value or art taste within each is usually far different from each other because the natural instincts of the artist is to create, and the nature of the craftsman is to repeat (here „artist“ and „craftsman“ is not in their external identity, but in their inner essence).

Creation relies upon imagination and repetition is a form of copying. Artistic imagination is a kind of intelligent energy consumption. So outstanding work comes from the hands of the artist who has great wisdom (the wisdom of the born gifted combined with skills gained from arduous effort through life). A spiritual work is not an imitated one, it is unique: the beauty of the original is not repeatable. This highlights the limitations of craftsmen, especially the limitations of Chinese craftsmen” (Ye, 2007, p.1).

Ye Tingfang’s the famous Chinese writer in the article *Artist and Craftsman* (2007) suggests perhaps the limitations of the traditional Chinese inside painting teaching system, with the master and his apprentices. Students normally learn „on-site“. Here, they copied their teachers, not daring to go against them. The teacher can only teach the techniques he has achieved. He might even hold back personal practice to maintain his position. Students in different studios have little contact with each other and outside inside painting constitution. Under these constraints natural creative flair does not flourish. The apprentice’s work merely repeats their predecessors and ultimately itself. This is presently the destiny of snuff bottle painting. Only an individual genius might change the craft nature and culture of traditional Chinese inside painting.

Although the form of painted snuff bottles remained essentially unchanged for two hundred years this improved painting skills and techniques. Painting tools developed (see 1.3.1) and the use of Chinese paint was used with Western oil paint (see Figure 14).

In conversation with well-known traditional painters the importance of the snuff bottle economy was stressed. If the nature or style of the finished article became significantly different to traditional work then there was a danger that collectors would not want to buy it (see Appendix 3.1).

In addition, if younger painters wanted to introduce change they had to take into consideration that in exhibitions the judges tended to be „traditionalists“, with little experience of modern technique or style. These older painters are often conservative and are against innovation.

An example has been the young inside painter Yizi Liu who, in 1994, advocated the movement of „new“ inside painting (Ding, 2010). He was, of course, not praised by the older inside painting experts and since then little progress has been achieved.

However some changes have begun to be introduced: the so-called „new“ inside painting made subtle changes to the techniques, such as strengthening the effect of light, and applied contrasting colors, and highlighting decorative effects. But in the overall result, the reform was, and has, been incomplete, as shown below (Figs. 78 & 79):

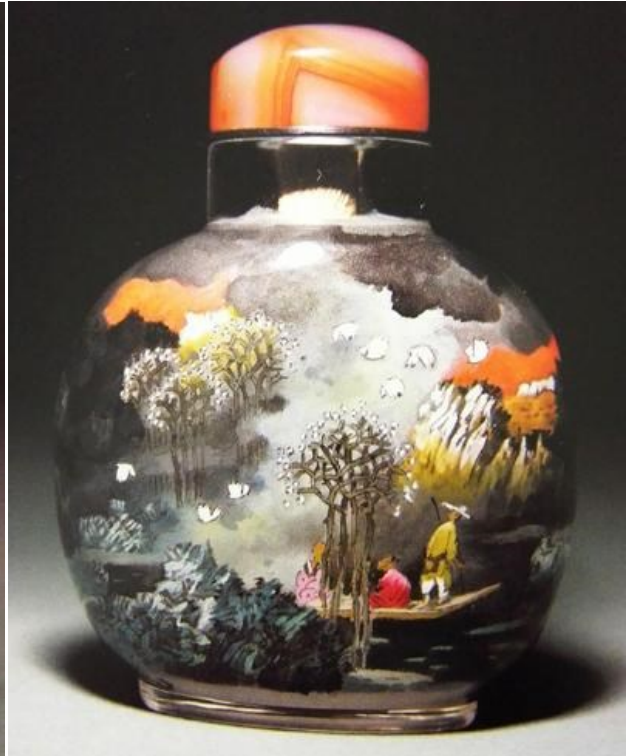
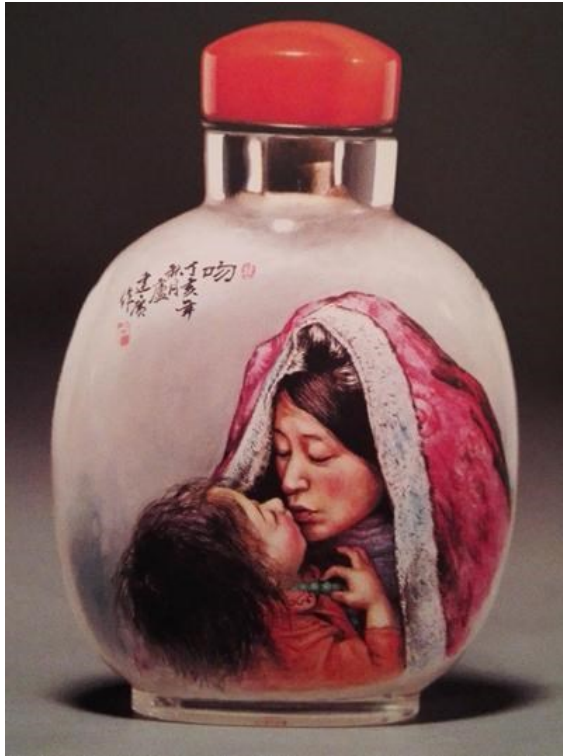


Fig. 78: Jianguang Lu, *Kiss*, crystal, 7.3cm x 5.7cm inside painting, Chinese paint and oil paint, 2007 **Fig. 79: Liu Yizi, *The Dream of Hometown*, crystal, 7cm x 5.5cm, new inside painting, 2010.**

3.3.2 The imitative focus of traditional inside painters

Constraints of tradition, lack of incentive from teachers and the simple everyday need to make a living has meant that now, as in the past, in the inside painter's studio painters can be found merely copying a picture into the snuff bottle – it has become a habit. There has been a fear of innovation. The painters generally pay attention to the training of basic skills and pursuing profound techniques. The general pattern has been of painting masters training apprentices. Usually the apprentices imitated the teachers' works or skills when painting, and very few students showed their own independent thinking.

From a psychological point of view „creation“ is to use ingenuity to produce novel, unique work exhibiting personal and social values, the work should be new and have social significance. The key word here is „new“: imitation is merely the reproduction of other artists' certain behavior or work (Ye, 2007).

Ability and the way of thinking are very different between imitation and creation. Ability can be divided between that inherent for reconstruction and that for creation. The ability to master accepted knowledge and skills in order to follow a ready-made model or a program, to be good at imitating and copying belongs to reconstruction. Creative ability is found in one who can independently work with new modes and programs to master and apply new knowledge and skills. They are good at discovering new principles, forming new skills, inventing new methods, in order to achieve (Lin, 1996).

However, some inside painters are afraid of innovation. If they changed the regular methods of inside painting, their works would, perhaps, not be sold and the livelihood of the family would be compromised. Hence, in the inside painting schools or in an artist's studio, it is usual to see that the painters were merely copying a picture into the snuff bottles, as shown in Figures 80 - 83.



Fig. 80: Hengshui Xisan Inside Painting School.

The painter was copying a picture from a book into the snuff bottle, 2014



Fig. 81: Zhang Guangqing Inside Painting Research Institute. The painter was copying a picture from a book into the snuff bottle, 2014



Fig. 82: Dong Wen, *Chairman Mao*, crystal, copied from a photograph, 7.5cm x 4.5cm, 2002



Fig.83 The original photo of Chairman Mao
The photograph was taken in 1947.

Even the top masters of inside painting have been guilty of merely copying existing pictures, such as the famous inside painting works *American President Ronald Reagan* by master Xisan Wang, and *Queen Elizabeth of United Kingdom* from the works of master Zenglou Zhang, see figure 80 - 83 below:

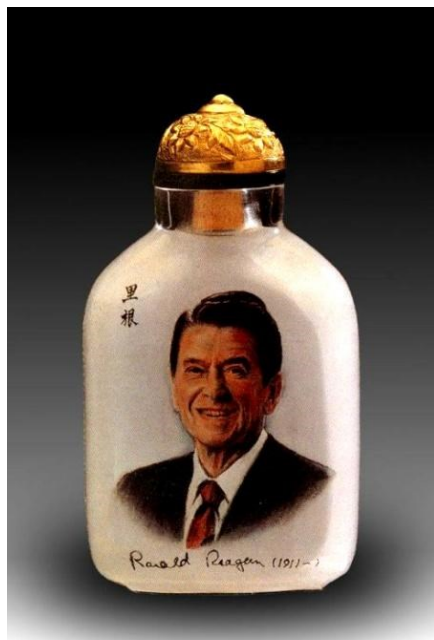


Fig. 84: Xisan Wang, *American President Reagan*
inside painting, copied photograph, 1984.



Fig. 85: The original photo of American President Ronald Reagan,
taken at Fudan University in Shanghai in 1984.



Fig. 86: Queen Elizabeth II of United Kingdom , photo taken in 2005.



Fig. 87: Zenglou Zhang, Queen Elizabeth II, crystal, inside painting, H 6cm, 2006.

3.3.3 The Public awareness of inside painting

Traditional inside painting as a kind of folk art in China was given a low social status and regarded as an insignificant skill by the so-called masters of the national academies of fine arts. Most inside painters were proud to be appreciated by some celebrities or politicians, and actively sought their patronage.

In China there have been few published books devoted to inside painting, with many bookshops not even stocking such books. The media has had little opportunity to be involved in inside painting, so that young contemporary Chinese people know little about the art.

Under the influence of Chinese economic development policy, it has not been easy for inside painters to earn money for their family, and many of them gave up inside painting in order to seek other jobs (Liu, 2009).

3.3.4 The innovation and social status of inside painting

In China, only a small number of painters chose inside painting as a means of artistic creation or as a working career. An important reason was the need to acquire complex

painting skills which required specialized training because the would-be artist is not using an expanse of paper on which to work, but a small cramped space inside a glass bottle. It typically takes a long time to acquire basic skills with the curved brush in order to draw a line and failure often led to early abandonment.

For the relatively small number of traditional inside painters who stay in their homes or studios in China, compared with the large number of artists in other disciplines who study in Chinese fine art academies, there is much less opportunity to produce innovative inside painting. Within the discipline of inside painting, the degree of personal attainment is governed by the potential selling price of the works produced. Innovation was and has been the last consideration in the industry and goes some way in explaining the lack of artistic development. In the current trend of economic development, the Chinese first choice is the relatively higher salary offered by vocational training.

Inside painting of snuff bottles belongs to folk art in China and is considered by a large number of Chinese people as an „insignificant“ skill, and is not valued highly by Chinese academic artists. The major national academies of fine arts and arts departments of universities are seen as teaching regular „high style“ of art. Actually, art has no „high“ or „low“ form; art is a kind of performance (Huang, 1993). Dominant art styles tend to belittle anything different. There are no inside painting courses in Chinese fine arts academies.

3.4 Summary of Chapter 3

Chapter 3 focuses on the limitations of the development of traditional Chinese snuff bottles inside painting, and analyzes the root cause of the disadvantages: Inside painters from the very beginning were thinking about the collectors more than themselves, and for the sake of economy the painters were willing to give up their own ideas. The traditional teaching style leads painters to be „craftsmen“ that usually concentrate on the ability to imitate, and the general public lack awareness of the culture of traditional inside painting.

This study provides possible solutions for these limitations, and strives to find a way out for the development of traditional inside painting, for the development of contemporary Chinese glass art to find a new way of artistic creation.

Chapter 4 – The current situation of contemporary Chinese university glass teaching

In this chapter, the current situation of contemporary Chinese university glass teaching is briefly introduced. Case studies are described in order to trace the methods used by teachers when working based on several of the main art academies in China. Questionnaires were given to the four main Chinese universities, which have good reputations in glass teaching in China, in order to find the potential recipients among the glass artists and students.

4.1 Case studies: some of the main teachers involved in current Chinese university glass teaching

The teaching of glass art in Chinese universities began at the beginning of the new millennium. The majority of the Chinese students who learned glass art in the UK returned to China in order to be teachers in academies, introducing glass making methods. In this way contemporary Chinese academic glass teaching began to appear upon the World stage. From the case study, the result shows that current glass teaching in China mainly concentrates on casting method.

Xiaowei Zhuang (莊小蔚) was born in Beijing, and is one of the founders of the Chinese studio-glass movement, and helped to set up the first Chinese glass studio, at Shanghai University in 2000. Zhuang graduated from the University of Wolverhampton in UK in 2000 and is now an influential artist and is now known in the international glass world. He has focused on the kiln-casting method in order to make almost all of his works. This author had personally joined his class at the studio in 2007. In an interview in 2016, the Shanghai University glass teacher Xiaosu Luo related that the studio only made „cast“ glass works (see Appendix 6.4.3, and Figure 88 below).

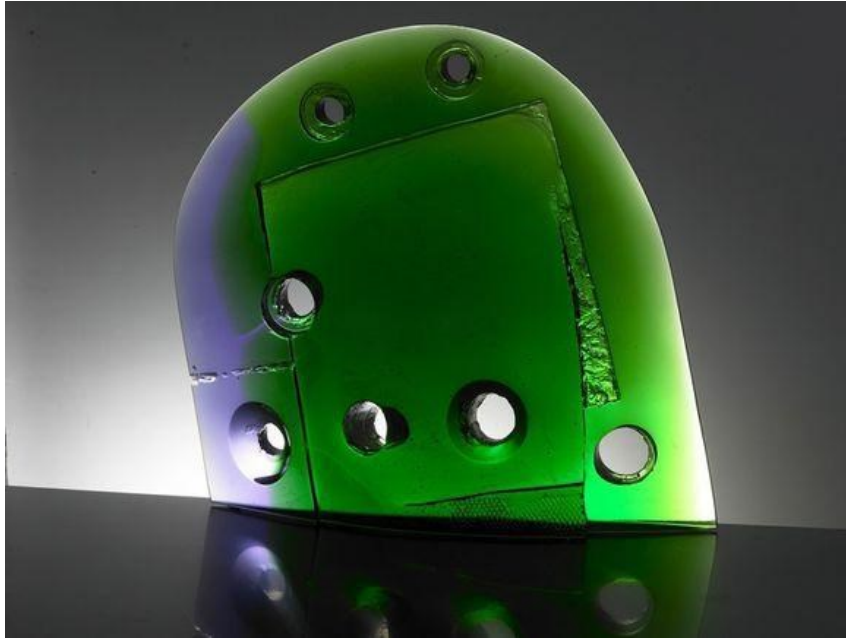


Fig. 88: Zhuang Xiaowei, *The Green Shadow of Remembrance*, cast glass, 2007.

Shufeng Dai (戴舒丰) (b.1971) Dai also graduated in glass from the University of Wolverhampton in the UK, in 1999. He returned to Tsinghua University in Beijing, in 2000, in order to teach and helped to set up the second glass studio in China there. He applies the lost-wax kiln-casting approach to make his glass work (Fig. 89):



Fig. 89: Dai Shufeng, *Dragon*, cast glass, 2013.

Donghai Guan (關東海) was the second glass teacher in Tsinghua University Guan who had studied glass in Wolverhampton, where he received an M.A. in 2003. He was

later awarded a Ph.D. by the University of Sunderland in UK in 2013. His research subject was *Sand Cast and Kiln Glass: a Chinese Context* (Guan, 2013). He is now the director of the glass studio at Tsinghua University. For his research, sand casting and kiln casting were the main methods chosen to produce his work (Fig. 90). He noted in his research abstract that “*I specialize in sand and kiln-cast glass and my art practice explores China’s historical cultural heritage*” (Guan, 2013). The students have followed their teachers, and also applied casting methods to their work.



Fig. 90: Donghai Guan, *Ancient Weapons*, sand cast glass, 2010.

Xue Lu (薛吕) (b.1981, Shanghai) is another Ph.D. student in glass art from the UK. She graduated from the University of Wolverhampton in 2009 and returned to China and taught glass courses at the Institute of Visual Arts at Shanghai Fudan University. She usually applies centrifuged hot-casting and kiln-formed casting methods to achieve her work (Fig. 91):



Fig. 91: Xue Lu, *Lotus*, centrifuged hot-cast glass, 2009.

Xue declared in her Ph.D. thesis that:

“Since 2000, nine university level glass programs have been established in China, all of them use kiln-casting as their main technique. Until now, there are no hot shops and relevant blowing courses, though the blowing workshop at the Academy of Art & Design of Tsing Hua University is proposed to be running from September 2007, the facilities are still not ready yet and understaffed. It will be the first workshop and the only one of which will allow access to a process blowing course in the near future.” (Xue, 2009, p.162).

Actually, at Tsinghua University, there were blowing courses from 2012. The glass studio at the China Institute of Fine Arts, in Hangzhou, started glass blowing courses in December 2015. Other art academies still leave their glass blowing to local blowing factories.

Yi Peng (彭怡) (b.1983, Beijing) finished her Ph.D. at the University of Sunderland in the UK, in 2014. Her research topic was *Cross Cultural Lampworking for Glass Art: The Integration, Development and Demonstration of Chinese and Western Lampworking Approaches, Materials and Techniques for Creative Use*, and chose flame-work to create her glass art (Fig. 92). She also returned to China and although she has not been given a teaching post, she has delivered lectures about flamed glass

to universities in Beijing Central Academy of Fine Arts and the Tianjin Institute of Fine Arts, where she gave glass students three weeks of flame glass teaching, from November to December, in 2015.



Fig. 92: Yi Peng, *Potted Landscape*, flamed work, H: 30cm, 2014.

Han Xi (韩熙) (b.1981) is a glass teacher at the China Institute of Fine Arts in Hangzhou. He concentrates on large-size kiln-casting techniques. In his art he has tried to present a sense of complicated space through the positive and negative shapes in his glass sculptures, so as to display the best features of the glass and he applies this approach to his courses (Fig. 93):



Fig. 93: Han Xi, *Solemn Quiet Torch Light*, cast glass, 60cm x 33cm x 102cm, 2014.

This author has taught glass courses at the Shangdong University of Art and Design in China for many years, with responsibility for the teaching program for glass students. The university annually recruits about twenty five students with diverse interests. The main courses at Shangdong are almost all based upon kiln-casting. Shangdong's glass studio offers hot-glass and flame-work courses in nearby Boshan. It is hoped that my research will enrich creative teaching and influence the curriculum and content of future glass courses.



Fig. 94: Jianyong Guo, *Beauties*, kiln-cast glass sculptures, H: 40cm, 2012.

4.2 Contemporary academic Chinese glass exhibitions in China
























A general view of the current Chinese glass teaching could be shown through consideration of some important Chinese contemporary glass art exhibitions that have taken place in recent years.

- 1) Chinese Institution School Glass Art Exhibition, 2007:


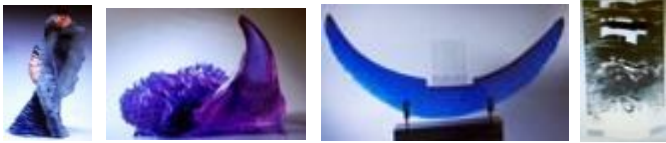



Fig. 95: Xiaowei Zhuang, *Institution School Glass Art*, 2007.

Table 8: Glass work from the Institution School Glass Art Exhibition, Shanghai, 2007

Methods	Artists	Artworks
Casting	Xiaowei Zhuang	   
Casting	Qing Wang	   
Casting	Tingting Zhao	 
Casting	Xiaoshu Luo	    
Casting	Ouhong Wu	    
Casting	Ling Qin	  

Casting	Shuai Fu	
Casting	Fei Ren	
Casting	Zhichang Lin	
Casting	Daiqi Mao	
Casting	Min Fan	
Casting	Weihua Hu	
Casting	Shanshan zheng	
Casting	Jianyong Guo	
Casting	Hui Lu	
Casting	Xiaoying Bao	
Casting	Feng Huang	

Casting	Yi Zhang	
Casting	Sheila Labatt (International student)	
Casting	Argentino Banares (International student)	

This exhibition was held in Shanghai in 2007. The Chinese contemporary glass studio emerged in academies only 7 years ago. At that moment, casting was the only method to be chosen by glass artists in Chinese fine art academies (Table 8).

2) Collection of the 7th China Modern Handcrafts Art School Education Works, Beijing, 2013:

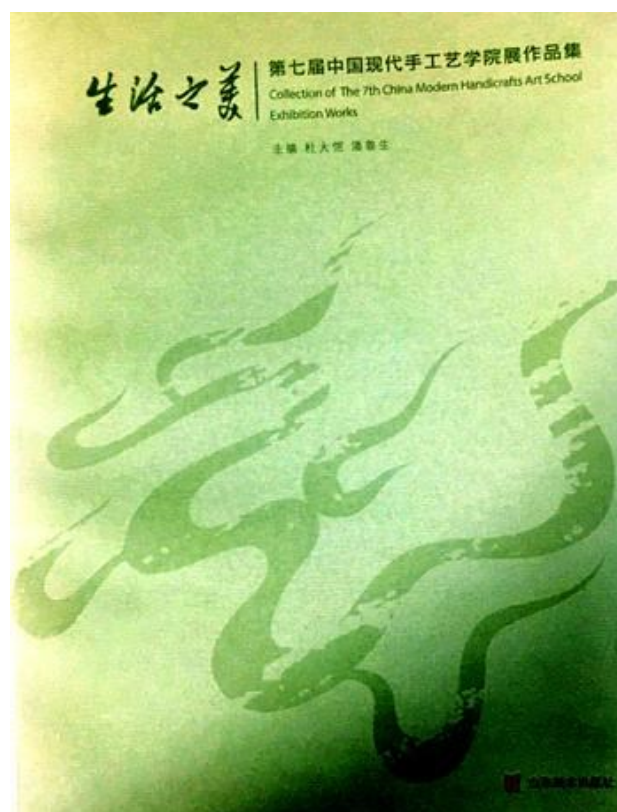
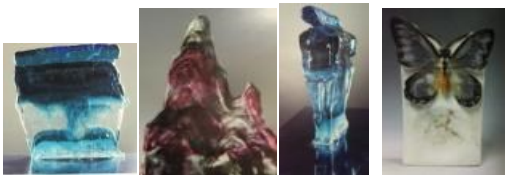





Fig 96: Exhibition of the 7th China Modern Handcrafts Art, Beijing, 2013.

This exhibition was held at the Beijing World Art Museum in 2013. In total more than ten art schools took part in the exhibition, but only six of them presented glass work. Each school chose only its most representative glass works for display in the exhibition:

Table 9: Collection of the 7th China Modern Handcrafts Art School Education Works

Schools	Artists	Artworks	Methods
Academy of Arts and Design of Tsinghua University	Liyu Liu, Cheng Chen		casting
Academy of Fine arts of Shanghai University	Xiaowei Zhuang, Xiaoshu Luo, Qing Wang, Yanghong Zhu, Jiong Zhang, Yihang Zheng, Hao wu		casting
Nanjing Academy of Arts	Meihua Yang, Jie Huang, Yuan Li, Xuesen Chen, Taoming Yu		casting
Shandong University Of Art and Design	Xingkun Wang, Linlin Niu, Yanyan Huo		casting
Luxun Academy of Fine Arts	Xianyang Li, Yu Liu		casting
Sichuan Academy of Fine Arts	Wenzheng Liu, Nan Zhang		casting

The table above details the exhibition shown in Beijing in 2013. All of the glass works from the six schools which took part in this exhibition were made by kiln-casting, the main trend in Chinese academy glass teaching until 2013.

3) Chinese Contemporary Glass Art Exhibition, Nantong, 2014

This exhibition was shown in March 2014, and was the largest Chinese contemporary glass art exhibition held between 2000 and 2014, with 192 glass works from 15 Academies or Universities of Art:



Fig. 97: Chinese Contemporary Glass Art Exhibition, Nantong, China, 2014.

Table 10: The schools which joined the Chinese Contemporary Glass Art Exhibition

	Central Academy of Fine Arts
	Tsinghua University Academy of Fine Arts
	Shanghai University Academy of Fine Arts
	Hubei Academy of Fine Arts
	Xi An Academy of Fine Arts
	Guangzhou Academy of Fine Arts
	Sichuan Academy of Fine Arts
	Luxun Academy of Fine Arts
	Shanghai Occupational Institute of Crafts Art

The schools which had joined the Chinese Contemporary Glass Art Exhibition	Suzhou Technology of Professional Institute of Arts and Crafts
	Nanjing Institute of Arts
	Jilin Institute of Arts
	Beijing Institute of Fashion Technology
	Shanghai Fudan University Institute of Visual Art
	Shandong University of Art and Design

The exhibition represented an overview of the current level of the development of Chinese contemporary glass art and glass teaching in art academies in the previous 14 years. Note that in this exhibition the proportion of glass works made by casting was 77.6%: 149 out of the total of 192 glass works. Blown glass pieces made up 14.6%, flame-works 5.6%, and 4 colored glass works only made up 2.2% (Table 11). Of the latter, two were stuck or kiln-fused colored glass. One was a sheet glass painting (Fig. 101), created at the University of Sunderland in the UK by M.A. student Cheng Shi in 2013, who has currently returned to China. Thus the monopoly of the casting style in China is prevalent.



Fig. 98: Qimei Guo, *Sailing*, glass and ceramic, 2010.



Fig. 99: Xin Jiang, *Door-god*, stained glass, tin wire, 2013



Fig.100 Yuanyuan Wu, *Classic Girl* glass, 2013



Fig. 101: Cheng Shi, *The Dirty Reality*, enamel colored painted glass, 420cm x 2cm x 200cm, 2013.

Table 11: Details of the Contemporary Chinese Glass Art Exhibition 2014

Methods	Works NO.	Sum	Ratio
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Kiln-Casting	1,3,4,7,8,9,10,12,13,14,15,16,21,22,23,24,25,26,27,29,30,32,33,34,36,37,38,39,40,41,42,43,44,45,46,47,49,50,51,52,53,55,57,58,59,61,63,65,66,68,69,72,73,74,75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,91,92,93,94,95,96,97,98,99,100,101,102,103,105,106,107,109,110,111,113,114,115,117,118,120,121,123,126,127,128,129,130,131,132,133,134,135,137,138,139,140,141,142,145,147,148,149,150,154,155,159,160,161,162,163,164,165,166,167,168,169,170,171,172,173,174,175,177,178,179,181,183,184,186,187,188,189,190,191,192.	149	77.6%
Flaming-work	6, 17,18,19,28,31,35,54,112,125,152,	11	5.6%
Blowing	2,5,11,20,48,56,62,64,67,70,71,90,104,108,116,122,124,136,143,146,151,153,156,157,158,176,180,185,	28	14.6%
colored glass	60,119,144,182,	4	2.2%

4.3 Questionnaires given to the four main glass studios in Chinese Universities

The questionnaires were given to the China Academy of Fine Arts (Hangzhou), the Tsinghua University Academy of Art & Design (Beijing), the Shanghai University Academy of Fine Arts (Shanghai), and the Shandong University of Art & Design (Jinan) in 2016 (see Appendix 6).

The results of the questionnaires about the new form inside painting in this research

- “● *All the Chinese glass artists, teachers and students wanted to apply the new form of inside painting methods in their glass works.*
- *All the Chinese glass artists, teachers and students agreed with the personal idea that the outside art form should firmly integrate with the inside painting content.*
- *All the Chinese glass artists, teachers and students accepted that this author’s new form of inside painting in glass sculptures is a fresh creation.*
- *All the Chinese glass artists, teachers and students indicated that my new form of inside painting method should be introduced into contemporary Chinese academic glass teaching.*
- *All the Chinese glass artists, teachers and students agreed with my new form of inside painting method could have a good future.”* (Copied from Appendix 6.5.3)

The results show that the new form of inside painting method is a promising application into contemporary Chinese university glass teaching.

4.4 Summary of Chapter 4

Through the discussion in Chapter 4, a conclusion could be found: Chinese contemporary glass art developed very quickly in kiln-casting techniques between 2000 and 2014, but few other styles of glass art teaching have appeared. There were certainly no inside painting courses in local art academies. In China, the „body“ of the Chinese current glass teaching programs in glass needed new blood. The techniques of traditional inside painting of Chinese snuff bottles (see 1.3.1) and contemporary Western glass painting (see 1.3.3) offer the possibility of developing painting glass in China. Questionnaires in four of the main Chinese academies of fine arts were presented to gauge the feelings of potential recipients. As a result, all the Chinese glass artists and students in the four universities hope to have the inside painting curriculum. The reality of the contemporary academic Chinese glass teaching situation suggests that the outcomes of this current research could be significant for creating a new model for inside painting glass art for Chinese art academies.

Chapter 5 – Development and demonstration of the creative use of inside paintings for contemporary glass sculptures

This author applied personal practice in order to develop and subsequently demonstrate the feasibility of applying the techniques of inside painting of traditional Chinese snuff bottles, so as to create a body of works demonstrating totally different effects and styles. These techniques included kiln-casting, blowing, flame work, slumping, fusing, and „outside“ painting combined with inside painting and printing. All the new forms of inside painting shown could be applied to contemporary Chinese academic glass teaching and therefore reduce, or even solve, the monopoly of traditional style.

5.1 The development of different glass forms of Chinese snuff bottles from the traditional

Being a contemporary glass artist, this author is of the opinion that it is important to develop those advantages of the traditional culture of inside painting that do exist. The most effective way is to change the whole approach to creativity in snuff bottle painting. The form of the snuff bottles could be changed according to how the artist can express his own language and styles which could then be brought into teaching practice for new students and existing artists to learn. This contemporary teaching should then serve to develop snuff bottle painting.

5. 2 Hollow cast glass sculptures

The method of producing a hollow-casted glass sculpture was a new approach which had the advantage of being easily able to control the shape precisely. Usually, the casting glass sculpture making process includes clay shaping, plaster mould making, wax model casting, lost wax technique, kiln – casting, and cold working. The process is outlined below:

1) Maiden

Firstly, the basic shape was made with clay, which allowed changes to be continuously if required, based upon the artist's thought processes:



Fig. 102: Jianyong Guo, *Pregnant*, clay sculpture, H: 30cm, 2014.

Next, a „male“ mould was made using wax casting, which was then placed into a fire-resistant mould. The lost wax method was then used to produce the sculpture before it was finished by kiln-casting:



1. Clay sculpture



2. Wax for casting mould



3. Lost wax

4. Kiln casting

Fig. 103: mould making before casting.

Thirdly, for kiln-casting, the temperature schedule was as follows:

Table 12: Schedule of kiln-casting firing.

°C/hr	Reached Temp. (°C)	Soak (hr)
30	90	3
60	680	2
100	860	3
150	600	2
25	510	6
2	380	3.3
8	300	3
15	150	End

Then, cold work: cutting, polishing and, after hollowing, sand-blasting ready for painting:



1. Cast glass sculpture



2. Removal of unwanted excess casting



3. Surface polishing



4. Hollowing



5. Inside Sand-blasting

Fig 104: Jianyong Guo, Cold work processes for *Maiden*

Lastly, inside painting:



1. Painted with Chinese mineral colors



2. Painting inside

Fig. 105: Jianyong Guo, The inside painting of *Maiden*



Fig. 106: Jianyong Guo *Maiden*, cast glass, hollowed inside, inside painting, 25cm x 15cm x 12cm, 2015.

In the process of creating this artwork, this author was inspired and greatly moved by a very strong childhood memory of a beautiful love story: A young maiden fell in love with a handsome young man, but the man died after a suffering from a serious disease. The maiden buried her lover's body in a snow hill and the body subsequently

also changed into snow. She stood beside the snow hill day after day, her tears streaming down her cheeks. Eventually, the maiden changed into a clear ice sculpture. The sun rose, the snow hill and the ice maiden and her lover all melted into water. They joined together to flow to a faraway place which was covered by all kinds of flowers.

Thus the ice „Maiden“ was casted into a clear glass sculpture, the hollowed glass decorated with blue inside painted figures, blue colors, together with some dark red Chinese words “少女 (Maiden)”. All these elements came together to represent a story that has stayed in the heart of this author all his life.

2) Using the same methods, other works, *Pregnant I* (Fig. 107) and *Pregnant II* (Fig.108) were produced by this author, both cast from the same mould.

The glass figure was an abstract idea of a woman who was pregnant. Her two arms are closed together so as to lift her big belly. Her head is bent down towards her belly so as to hear the sounds of her baby. She is tired, but happy at the same time, because she has hope for the future.

Pregnant I was painted with Chinese black mineral colour. Some pregnant ink figures were harmonious with the landscape. Women breed children and the Earth breeds people. They are all mothers.

Pregnant II was painted inside with penises, swimming sperm, and other pregnant figures. Men and women produce children through sex. Love, sex and birth are harmonious. Taoist thought suggests that if „Yin“ and „Yang“ (see 1.2.1) represented harmony, humans and nature should be in harmony and therefore the whole world would be in harmony. Thus both, *Pregnant I* and *Pregnant II* represent the importance of harmony in the world.



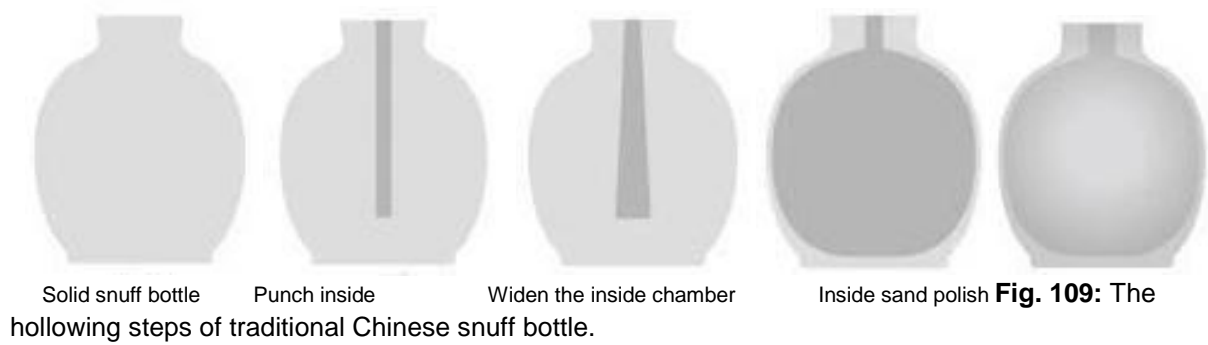
Fig. 107: Janyong Guo, *Pregnant I*, cast glass, hollowed inside, inside painting, 25x15x12cm, 2015.



Fig. 108: Janyong Guo, *Pregnant II*, cast glass, hollowed inside, inside painting, 25x15x12cm, 2015.

10) The process of making *Girl*

The traditional method to hollow a snuff bottle was applied in making the glass sculpture *Girl*. The process includes: drill punching, widening the chamber, and sand polishing (see Fig. 109).



The tools of hollowing glass snuff bottle or glass sculpture:



Fig. 110: The different emery drills for punching and widening the inside chamber.

The different emery drills can be bent at the top end, and as the inside chamber gets bigger and bigger the bending angle should be enlarged, so as to get the chamber suitable for inside painting.

i) Casting:



i) Make the sculpture with clay



ii) Parting and mould making



iii) Transferred into wax



iv) Lost wax and glass casting in a kiln



v) The mould after casting full of glass



vi) The finished cast glass sculpture

Fig. 111: The glass casting process of *Girl*

ii) The process of polishing and hollowing *Girl*:



i) The polished glass *Girl*

ii) Hollowing of the sculpture



iii)

The finished hollowed part of the sculpture



iv) The process of sand polishing on a machine for preparing the inside wall



v) The finished hollowed sculpture

Fig. 112: The process of polishing and hollowing *Girl*

(iii) The inside painting process of *Girl*:



i) The first step was to draw the outline of the main figures



ii) Then fill out the volume of the figures



iii) The inside painting of one side finished iv) The other side of the sculpture painted in the same way



v) The finished inside painting of the other side



vi) Font and rear views of the finished *Girl*.

Fig. 113: Jianyong Guo, *Girl*, cast glass, hollowed inside, inside painting, 25cmx 20cmx 12cm, 2015.

The making of *Girl* was a long process and it involved close collaboration with several others: technician Tim Betterton for the kiln-casting, Chinese craftsman Zaiyin Zong for polishing, Chinese craftsman Baokan Song, for hollowing.

With this piece the author attempted to enhance the idea of how to combine together personal sculpture and paintings in order to express one meaning (see 1.4 “Research

Aims”). The exact forms of the inside paintings used for the finished piece were copies of two personal paintings finished in 2012:



Fig. 114: Jianyong Guo, *The Kiss of Mountains*, painting, 80cmx80cm, 2012



Fig 115: Jianyong Guo, *True love*, oil painting, 70cmx90cm, 2012.

In these two paintings I had attempted to express the Taoist idea of harmony between peoples, and people and nature: the Taoist idea of „Yin“ and „Yang“ (see 1.2.1). In *The Kiss of Mountains* I painted two similar figures, kissing. Strong contrasting colors, such as yellow and purple, were applied. I harmonized these contrasting colors through the method of reducing the contrast between cold and warm colors, for example warm purple and yellowish brown.

In the piece *True Love* there is a slim person and a fat person, also kissing. Another two kissing people, within a landscape of sand, sea, sun, mountains and the distant seascape, are all in harmony in one place, where the kissing people symbolize the love between everything in nature.

The work involved using a black marble sculpture made by this author in 1998 called *Young Girl*:



Fig. 116: Jianyong Guo, *Young Girl*, front and rear views, black marble, 40cm x 20cm x 16cm, 1998.

In this marble work, this author displayed a strong and vigorous girl's body. The inverted triangle figure presented a strong sense of stability. The figure was also symbolic. The upper half of the body represented the girl's head and breast, but also appeared as a man's penis. Breast represented „female“, penis for „male“. The famous American Taoism expert Elisabeth Reninger, in her article *The Yin-Yang Symbol*, pointed out the „Yin“ (陰) referred to feminine or negative; „Yang“ (陽) referred to masculine or positive (Reninger, 2015). This sculpture was designed using the basis of Taoist culture. „Yin“ and „Yang“ were combined in one concise figure in order to display the idea that harmony was a „beauty“.

At that time (1998) there were not any glass courses in any of the Chinese fine art schools. The idea was to add some paintings to enhance the ideas in this stone sculpture, but was impossible at the time of its creation (see Figure 116, above). But now, through this research, there was an opportunity to achieve this, after the glass work, *Girl*, was finished (Fig.117).

Furthermore, using the same methods for *Girl* another glass sculpture, *Love in Nature*, was made in the familiar style, but the inside painting was different (Fig. 115). Both examples of painting content were about the harmony aspect of Taoism. In these works the art „form“ of the glass sculpture and the art „contents“ of the inside paintings were combined tightly, and expressed this author's feelings and ideas. These also demonstrated the objectives and discussed in 3.1.



The parts of the inside painted sculpture



The front and rear views of the glass sculpture

Fig. 117: Jianyong Guo, *Love In Nature*, cast glass, hollowed inside, inside painting, 20cmx 15 cm x 10cm, 2015.

5.3 Blown glass sculpture with inside painting

To blow a glass figure sculpture, one of two methods is usually applied: mould blowing or free-hand blowing. Small figures or those with complicated shapes, cannot be made by using a mould, and here the best method is free-hand blowing. The mould blowing approach is more convenient for relatively larger figures and those requiring less complicated details.

5.3.1 Free-hand blown forms

1) The blowing process of *Waiting*

During a month-long return to China in order to collect writing materials, in March 2014, this author visited the Zhenhua Glass Factory in the Boshan (博山) city of

Shandong province. This glass factory is very famous for its glass blowing in China and many of their glass products are exported abroad. It employs more than 500 skillful craftsmen who have had more than 20 years experience blowing glass in the factory working two shifts, where 250 workers work together in the daytime and the other 250 work worked during the night. Production is therefore twenty four hours a day, seven days a week. The manger chose a very skillful worker, Changsheng Xing (邢長興), to blow the glass for some of this research work, based upon ceramic sculptures:

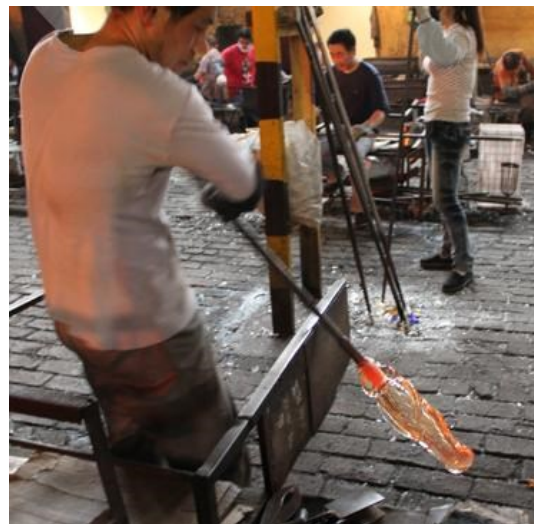


Fig. 118: Jianyong Guo, ceramic sculptures for copying, 5cm x 2cm x 2cm, 2014.

The blowing process is shown in the following sequence of images, listed as Figure 119:



i) Blow a bubble of glass



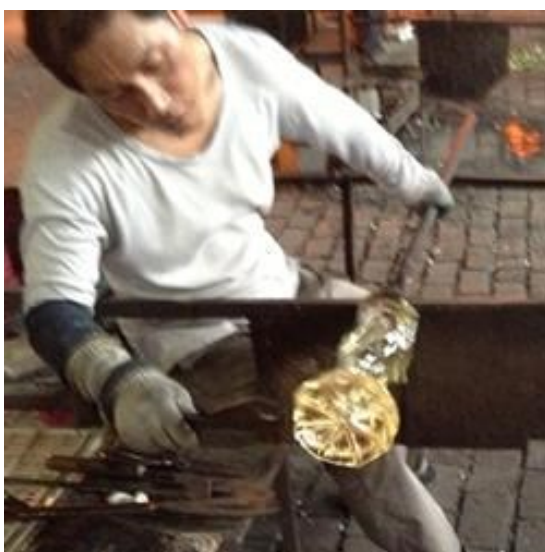
ii) Copy the shape of the ceramic figure



iii) A plinth is added at the bottom



iv) A glass sheet is made for holding



v) The sheet is added to the plinth



vi) The head of the sculpture is shaped



vii) free-hand blowing finished



viii) the finished glass sculptures 35x10x10cm

Fig. 119: The free-hand blowing process, blown by Changsheng Xin in the Zhenhua Glass Factory, China, 2014.

2) The process of the inside painting of *Waiting*

This group of blown glass works was much larger than traditional Chinese snuff bottles. These three glass works were each 30-35cm high, whereas the tallest snuff bottle is typically not more than 10cm high. In addition, there were many curves in the bodies of these glass figures and so to paint inside these works some special painting brushes had to be made. However, because of the deep interior space inside the sculptures, it was difficult to hold long stick brush steady. Therefore it was important to make a good, suitable painting brush for inside painting.

(i) Made a special painting brush

Early inside painting of Chinese snuff bottles was achieved with bamboo sticks:



Fig. 120: The traditional bamboo sticks used for inside painting.

The bamboo sticks were bent into a curve at one end. Then the curved end was cut and polished so as to be slim and pointed. This hard point of the bamboo stick meant that the strokes could be drawn straight and had a hard and strong appearance. However because the bamboo had poor ink absorbency, the painter needs to dip the stick into the ink constantly. This is time consuming and slows the painting speed down.

The modern inside painting craftsmen usually make their paintings with Chinese writing brushes, which can soak up much more ink or color, hence saving time. For this research it was decided to make suitable brushes for painting inside the sculptures that would be larger than those typically used for painting traditional snuff bottles.

The method of making a brush is shown in the image sequence in Figure 121. Firstly, some elastic animal hair was chosen. In China the winter tail hair of the yellow weasel was considered the best choice for making writing brushes, and it was very suitable for drawing lines. Wool is relatively softer than weasel hair, and is more suited for painting. Usually, a bigger Chinese calligraphy writing brush was chosen to subsequently make onto smaller ones.

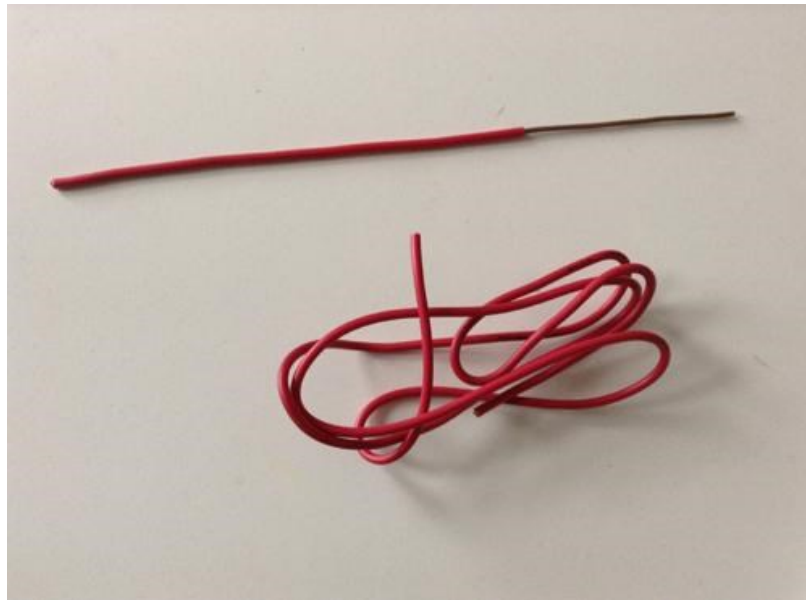


i) Split the writing brush into a smaller one



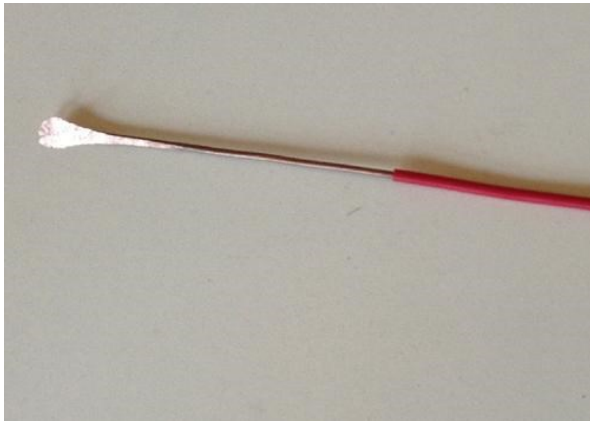
ii) Cut the smaller one off

Secondly, a segment was cut off from a thick copper electric wire.

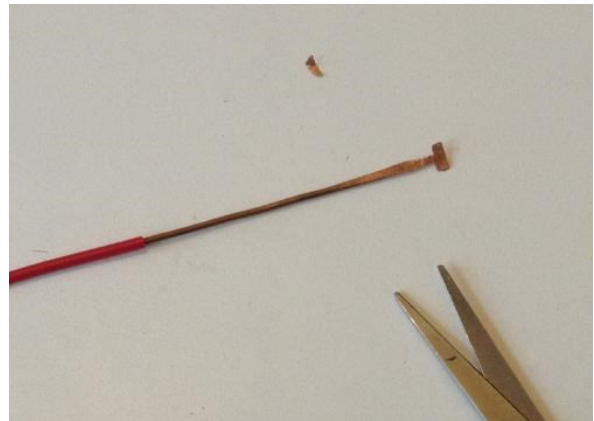


iii) A segment from the electric wire made the „stick” for the painting brush, L 46cm.

The plastic coating of the wire was removed at one end, and this end of the copper was hammered into a flat sheet. This was then cut into a strip:



iv) the copper wire was hammered into a flat sheet



v) the sheet was cut into a strip

This „strip“ was then curved into a circle, so as to hold the little brush which was removed from the bigger writing brush.

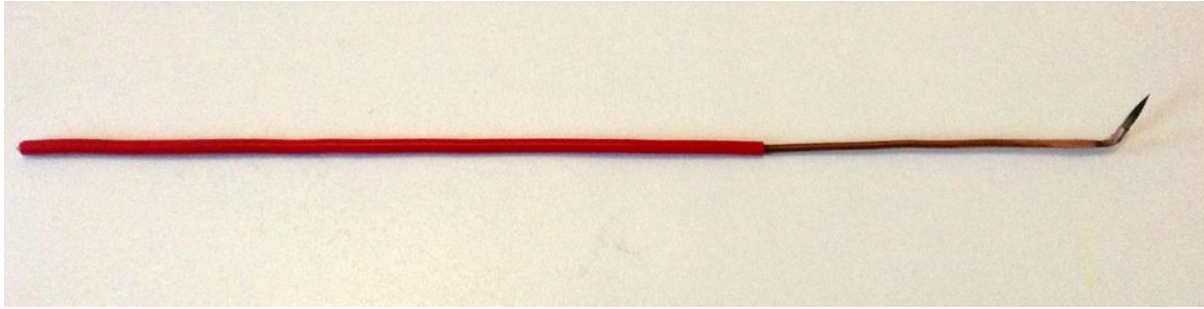


vi) the copper strip was curved into a circle

Finally, the small brush was inserted into the copper circle, stuck together with resin, and curved at suitable angle to finish the process.



vii) stick the brush with resin



viii) the finished inside painting brush

Fig. 121: Making the inside painting brush, L 45cm, 2014.

(i) Sand-blasting inside the figure before painting

Before inside painting, sand-blasting inside the hollow glass piece was necessary, because the inside wall of the sculpture was slippery and would not easily hold paint. After sand-blasting, the inside wall presents a frosted effect, resembling white paper:



Sand-blasting the inside glass wall



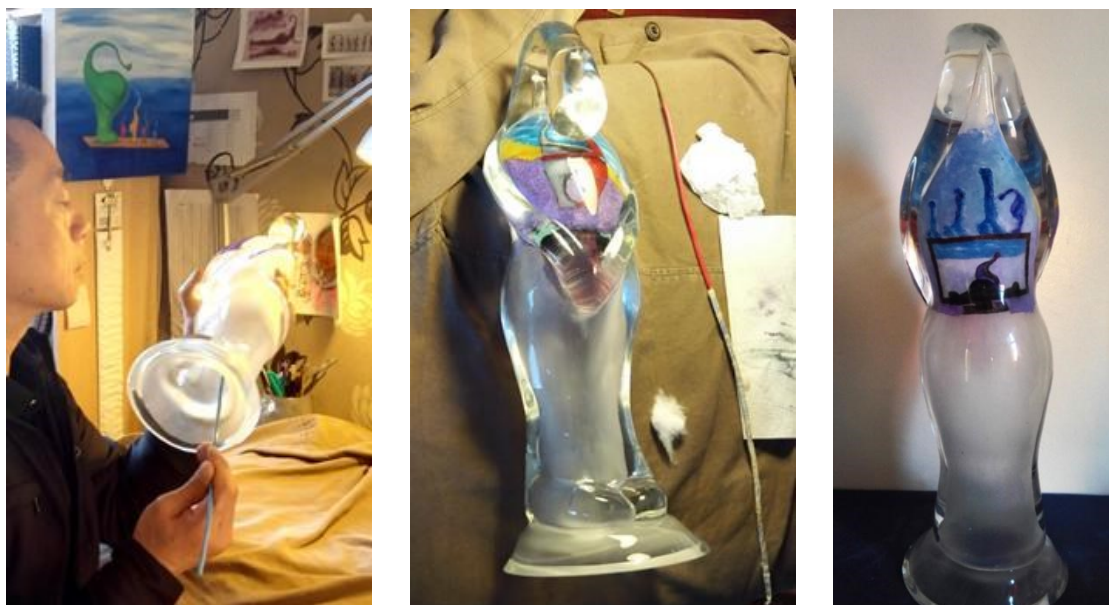
The frosted effect inside after sand-blasting

Fig. 122: Sand-blushing the inside wall of the glass sculpture *Waiting*, 2014.

(ii) The process of inside painting the work

Usually, a rough sketch was drawn with lines. After these were blown dry, colors were added according to the lines. Step by step, layer by layer, the inside painting process needs a lot of patience, because these glass works were relatively large, and the inside space was curved, painting „inside” was more complicated. The feature furthest

inside the glass had to be painted first, and when finished they were blown dry by using a hair drier:



Front and rear views of the inside painting



Fig. 123: Jianyong Guo, The finished inside painting in one of the works of *Waiting*, 2015.

(iv) The finished works of *Waiting*

The works that make up *Waiting* were composed by three blowing glass sculptures (Figs.124 & 125). The process and methods of the inside painting was similar to the process described above. In the whole process of developing this work, everything was ordered in accordance with the thinking of Taoism, and harmony was the most important thing. Through the three stages in the development process of a thing, an object, or a person, the process expressed that everything was developing according to the idea of from a beginning to an end, from young to old, or from birth to death.

Thus, the inside paintings in this group of glass sculptures suggested the meaning of harmony. The meaning of the „outside“ glass figures and the contents of inside painting all represent the same idea of the importance of everything being in harmony.



Fig. 124: Jianyong Guo, *Waiting*, frontal views of the glass sculptures and their inside painting, H.45cm, 2015.



Fig. 125: Jianyong Guo, *Waiting*, rear views of the blown glass sculptures and their inside painting, H.45cm, 2015.

5.3.2 Mould blown glass sculptures

Making a mould for glass blowing is a common technique in the glass making process.

Usually, a blowing mould is made according to the requirements based upon the aims of the artist and the quantity of finished works required. The materials of mould making can include metals, wood, graphite, and plaster. In practice, for this research, a plaster mould was often used as only a few glass sculptures were made with one mould. A very durable material was not needed. An ordinary plaster mould could only be used

a few times before becoming useless, as some details of the mould might be destroyed during the process of blowing. As only two or three works were going to be made with each mould for this work, plaster was used. All the mould-blown glass sculptures for this research were blown by Technician James Maskrey from the University of Sunderland.

5.3.2.1 The process of making *Pregnant*

„*Pregnant*“ was first conceived around fifteen years ago. As time passed, with constant re-thinking the final form gradually emerged and the emotional content satisfied this researcher.

Peoples' lives experience many changes: success or failure, rough or smooth, happiness or sadness, all are found in life. Regardless, everyone hopes for a good life. *Pregnant* was designed to illustrate this point: just like a pregnant woman, although the process of giving birth would contain pain, when a woman thought of the baby that was coming, she was happy, and so she could bear all of the pain.

1) Before the glass for *Pregnant* was blown, a ceramic version was first made so that the technicians could copy it in the process of blowing. This ceramic sculpture could be contrasted with glass version in order to feel the differences in artistic effect.



Fig. 126: Jianyong Guo, *Pregnant*, ceramic, 35cm x 22cm x 20 cm, 2014.

2) Then, a plaster blowing mould was made for the blown work *Pregnant*. The production processes included:

i) To shape the figure with clay. Potential difficulties in blowing the glass for *Pregnant* had to be considered. For example, the neck of the sculpture was too thin to blow the glass successfully so the neck had to be changed into a thicker „straight“ shape, as in Figure 127. The neck could then be bent forward in the process of blowing.



Fig. 127: Jianyong Guo, *Pregnant*, clay, 35cm x 22cm x 20 cm, 2014.

ii) Some small holes were drilled deep down in the „female“ mould in order to allow any trapped air to exhaust during the process of blowing, allowing the glass in the deep part of the mould to achieve its original shape after blowing.

iii) If the mould was to be used many times, the plaster should be made relatively thick, and before blowing some protection fluid, a graphite spray, was applied to the inside of the mould walls:



Fig. 128: Sprayed graphite in the „female” plaster mould.

3) The process of blowing could be divided into several steps:

- i) From within the furnace glass is picked up with a blowpipe, air is blown into this to begin the shape and this process is continued until the bulb is the required size.
- ii) The glass bulb is put into the mould, which is then closed, and air is blown in through the pipe in order to get pressure.
- iii) The blown figure is repeatedly adjusted to get it right and finally the degree of bending in the head and neck of the sculpture was decided.
- iv) The glass sculpture was removed to the annealing furnace for cooling.

This sequence is illustrated in Figures 129 and 130:



Fig.129: Blowing a bubble according to the size of the mould.



Fig. 130: The finished blown glass sculpture *Pregnant*.

4) The cold working process

i) Any unwanted glass was cut off the bottom of the sculpture:



Fig.131: The shape after cut the spare part of the blowing port.

- ii) The bottom of the sculpture was ground down so that it was stable when stood upright:



Fig.132: Grinding the bottom of the sculpture.

- iii) The inside of each sculpture was then sand-blasted in order to make the inside surface rough in order for the paint to stick to it:



Fig. 133: The sand-blasted inside of the sculpture.

5) The process of inside painting the sculpture *Pregnant*

- i) The first areas drawn were the places farthest away from the opening at the base - the head and neck:



Fig. 134: The head and neck of the sculpture was painted first.

- ii) Then the different layers of color were applied, step by step:



Fig. 135: Different layers of figures and colors painted inside the sculpture.

iii) The density of pattern and position were controlled, in order to coordinate the overall effect:



Fig. 136: Jianyong Guo, *Pregnant*, blown glass, inside painting, 35cm x 25cm x 20cm, 2014

5.3.2.2 Making the inside painting work *Seasons*

1) Model making

- i) For the sake of accuracy in the model, it was shaped with clay, making it easy to amend the figure. The Taoism thinking of „Yin“ and „Yang“ (See 1.2.1) was reflected in this work where the penis of man and the breasts of woman were combined in the sculpture. It attempts to show the importance of harmony in nature:



Fig. 137: Jianyong Guo, *Seasons*, clay, 30cm x 25cm x 20cm, 2014.

- ii) A female plaster mould was made from the clay sculpture:



Fig.138: The plaster mould for the blown work *Seasons*.

iii) As before, during the making of *Pregnant*, holes were drilled at the places where there was a steep angle, or the curve was too deep so that during the process of blowing, trapped air could escape and therefore let the final glass form be accurate and complete. Again, before blowing, the mould needed to be sprayed with graphite in order to protect the plaster mould:



Fig. 139: The mould has been sprayed with graphite fluid.

2) Blowing into glass

i) In the hot glass studio the blowing work was completed by technician James Maskrey:



Fig. 140: The blowing process of *Seasons*.

ii) The completed blown glass was put into the annealing furnace in order to reduce its temperature.

3) Cold working

i) Unwanted glass was cut off from where the blowpipe was in contact with the sculpture:



Fig.141: The spare part had to be cut off.

ii) The bottom of each piece was polished in order to adjust the centre of gravity and the angle at which each stood:



Fig. 142: Polishing the rough bottom of the glass work.

iii) The insides were then sand-blasted, as described before:



Fig. 143: The inside sand-blasted glass work for inside painting.

4) The inside painting of *Seasons*

i) Before commencing the paintings in a glass sculpture, enough time was spent in order to plan how to use the inside space appropriately. The glass figures suggested

a certain meaning by themselves but it was felt necessary to paint some particular things inside to enhance the overall meaning. The inside painting work had to be suitable to the outside shape.

The seasons were suggested by four penises of men, which stood for power and energy. In some cultures or art styles the penis is used to symbolize a certain meaning. In Kawasaki, in Japan, in early April every year, a penis festival is held there:



Fig. 144: The penis festival in Kawasaki, Japan, 2014.

The journalist Mary King reported in the web magazine *Japan Travel*, Hirohiko Nakamura, the chief priest at his family shrine, said in the penis festival of 2014 that, *"Whether your prayers be for prosperity, healthy offspring, a fertile marriage, wedded bliss, an uncomplicated delivery or personal health, this shrine remains the focus of community faith, as it has been for centuries."* (King, 2014)

ii) In these glass sculptures many active sperms were made with acrylic paints. The sperms in their different colors all combined with the outside shape of the glass figures.

The whole work expressed the alternate status of feelings, energies or enthusiasms in the four different seasons. For example, the red one stood for summer. The glass penis was very straight and suggested „energy“. The inside color is bright red, the sperms were more active. All these things symbolized a young person who had energy, enterprise, spirit. Also, the red sculpture could symbolize something in its rising state.

For the inside painting process, it was first necessary to make some long, hooked, stick brushes to successfully draw the deepest part of the sculpture. These helped to avoid damaging the finished graphics, and if any color was accidentally applied to an area which hadn't been painted, it was easy to erase (see making process Figures A-H).



A. The hooked writing brushes.



B. The inside painting of sperms.



C. Showing the inside painting from the bottom of „*Summer*“, from *Seasons*.

iii) After painting the „sperm“ inside „*Summer*“, a thin layer of pink paint was applied in the shape of the „*Pregnant*“ sculpture:



Fig.145: Jianyong Guo, *Pregnant*, porcelain, 2013 D.The *Pregnant* figure painted inside *Summer*.

- iv) The lower half of the sculpture was painted in a light green color in order to increase the „depth“ of the inside foundation color, to suggest a sense of „heaviness“, or weight:



F. Light green painted onto the lower part of the sculpture.

- v) After that last layer was completely dry, the inside wall was painted overall with a very thin red color using a soft brush so that the colors of the whole inside would achieve unification.



G. The inside wall painted with a thin red color, using a soft curved writing brush.

vi) The last major step was to paint the whole interior space with thick red again. This color would give the whole work a sense of weight and depth. To finish the author's name was applied:



H. A layer of thick red color was applied to the whole of the inside space of the sculpture.



Fig.146: Jianyong Guo, *Summer*, one finished piece of the work *Seasons*.

The other three figures were made by similar methods. The finished work:



Fig. 147: Jianyong Guo, *Seasons*, blown glass, inside painting, acrylic, 30cm x 20cm x 20cm (each), 2015.

5.3.2.3 The process of inside painting *Clothes*

The work of *Clothes* expresses the idea of combining the cultures of West and East. The Chinese tunic suit (Zhongshan Clothes) was chosen as a well-known contemporary example (Fig. 148) and was designed on the basis of widely absorbing the advantages of Western clothing. Modern Chinese revolutionary pioneer Sun Yat-sen integrated western-style clothing with the characteristics of the Chinese style. He designed a jacket with straight lapels and four patch pockets, and became known as the Chinese tunic suit. It was greatly popular after 1912, and became standard clothing in some formal occasions (Baiké, 2015).



Fig.148: Chinese style tunic, Zhongshan clothes.

For this research inside painting was combined together with a mould blown glass sculpture of a Western suit. In the work *Clothes* this author presented the methods to show how to combine the glass sculpture itself with inside painting in order to express the opinion of the author. The painting contents attempted to present the connection of the different cultures in the West and China. The English words „West“ and „East“ and Chinese word „西“ and „東“ were used together. At the back of the work a Chinese tunic suit was drawn to echo the Western clothes sculpture. The process is described below:



i) The clay sculpture of *Clothes*.



ii) The mould of the sculpture of *Clothes*



iii) Protecting graphite sprayed onto the inside of the mould.



iv) Glass blowing with the mould



v) The finished blown glass sculpture



vi) The bottom was cut and polished



vii) Sand-blasted inside



viii) Outlined the motif and design



ix) The inside painting of the front side finished



x) The inside painting of the rear side finished

Fig.149: Jianyong Guo, The process of making *Clothes*



Fig.150: Jianyong Guo, *Clothes*, blown glass, acrylic inside painting, 25cm x 22cm x 18cm, 2015.

5. 4 Blowing glass compared with casting

For this current research it was decided to make a blown glass sculpture in the form of a work previously made many years ago shown in Figure 151.

The blown glass sculpture process was very different from that of casting. There were many advantages and some disadvantages. It was convenient and faster than making kiln-casting glass, but if a piece has some precise details, the blowing approach cannot usually be applied, although a few blowing technicians can blow very good glass sculptures by free-hand which contain some accurate shapes and details.

Usually, moulds were made for blowing during this research, but where that part of a sculpture was very thin, the glass could not get into the mould during the blowing process. The shape of the sculpture had to be changed, for example, when producing the glass sculpture *Pregnant III*, the head of the sculpture did not get the effect that the researcher had originally wanted.



Fig. 151: Jianyong Guo, *Pregnant*, fibreglass, 2007.

It was found that the sculpture's neck and head could not be blown in glass because of its slim shape and the small hole of the mould. This meant altering the sculpture at the neck and head. Then a mould was made for blowing:



i) Clay Sculpture.



ii) The plaster mould for blowing.

Two attempts at blowing glass with this mould resulted in two differently-shaped sculptures, C and D below:



Fig. 152: The same mould blown glass sculptures, C, left and D, right.

The key point is that the shape sought could not be achieved. Thus showing that mould blowing was not a viable way to make an accurate figurative sculpture. By comparing the blown and the cast figures the difference can be clearly seen (Tables 13, 14, & 15).

Table13: Blowing glass compared to casting glass.







Method	Expected Shape	Clay shape	Mould	Result
Blowing				
Casting				

Table14: The advantages and disadvantages of blowing and casting

Method	Advantages	Disadvantages
Blowing	Could be finished in a short time	The complicated form could easily be deformed
	Does not need too much polishing or cold work	Needed skillful techniques and experiences
	Light and convenient	Less of a feeling of weight and refraction
	had bigger volume for filling	Some curved places cannot be painted
Casting	Good for keeping the original shape	Needed a relatively long time to be finished
	Had a strong sense of weight and refraction	Needed long time to polish
	Could alternatively hollow the inside places	Inside volume relatively smaller
	More easy to duplicate the same shape	To hollow out the inside needed skillful techniques and was time consuming

Table 15: Comparing the different appearances of some personal works after inside painting

Blowing					
Casting					

When comparing the advantages and disadvantages of blown or cast glass it is the artist himself that decides which figure is suited for which technique. In addition, different forms of glass sculptures need suitable forms of inside painting to suit them.

5.5 Using flame work in combination with inside painting

Using flame work to make glass sculpture is convenient. However as the work was relatively large then it would be easy to break. The glass pipe used in flame-working does not have a strong final thickness. In addition sand-blasting the inside surface increases the fragility. Also the thin glass wall has a weak refracting effect and lacks of solidarity. Compare Figures 153-155:



Fig.153: Jianyong Guo, *Love In Silence*, flame work glass, inside painting, 10cm x 5cm x 4cm, 2016.



Fig.154: Jianyong Guo, *Red Heart*, flame worked glass, inside painting , 5x4x3cm,



Fig. 155: Jianyong Guo, *Cloud*, flame worked glass, inside painting, 5x3x3cm, 2015 2015.

5. 6 Fusing methods to make 'closed' inside painting

1) By using the „hot melt” method an attempt was made to seal the interior of an inside painted sculpture. After sealing by fusing the glass the paint is protected from dirt, dust and damp (Figs. 156).

The results were interesting. Some painting or calligraphy was applied to the inside of bottles. Two or more bottles were placed together in the kiln at a gentle heat so that the touching points fused together (Fig.157).



Fig. 156: Jianyong Guo, *Big Landscape*, fused glass ware, on-glaze inside painting, 20cm x 8cm x 8cm, 2013.



Fig. 157: Jianyong Guo, *Collapse*, fused glass ware, on-glaze inside calligraphy, 8cm x 15cm x 7cm, 2013.

This process needed constant experimentation as different glass bottles had different melting characteristics and so the fusion point would differ between two touching pieces.

For testing some recycled household glass jars and bottles were cleaned and internally sand-blasted, then washed and blow-dried:



i) The sand blasted glassware

i) Painting or writing calligraphy inside the glass bottles with on glaze colors.



ii) The finished inside paintings and calligraphy with on-glaze colors inside the glassware

- ii) The painted glassware was carefully arranged in the kiln at the chosen angle and fired at the chosen temperature:



- iii) The finished glass bottles in the kiln waiting for fusing

2) Hot melt experiments and associated problems.

- (i) For the first attempt the temperature was controlled at 120°C/hr up to 700°C , and held there for 15 minutes, then dropped at 120°C/hr to 540°C , and held there for 1hr, after which time the heating was stopped.

This method caused the bottles to completely change shape and/or crack. The rough surface from sandblasting became more transparent, so that the calligraphy or pictures on the opposite side of the bottles could be seen, but appeared distorted:



- iv) The bottles changed their shapes after the first attempt

(ii) For the second experiment, the temperature was controlled at 120°C/hr up to 655°C , held there for 15 minutes, then dropped at 120°C/hr down to 540°C , held for 1hr, after which time the heating was stopped.

The result was that the bottles did not fuse together because the temperature was too low.

The experiment was repeated using the same heating rate to a final temperature of 665°C/hr , but the bottles still did not fuse together.

For a third attempt the same heating rate was used but to a final temperature of 675°C , and this time it worked: no deformation, no breakage and no damage to the opaque sandblasted surface:



i) Before fusing



ii) After Fusing

(iii) For a third experiment set the temperature rate was again 120°C/hr up to 680°C where it was held for 15 minutes, then dropped down to 540°C at the rate of 120°C/hr , held for 1hr, then stopped.

The results showed that parts of the bottles were deformed and that the sandblasting surface been damaged slightly:



i) Before fusing



ii) After Fusing



3) Summary of the kiln situation of the three experiments:

Table16: The summarization of the situation in the fusing experiment

°C/hr (Up)	Temperature (°C)	Holding time (Min.)	°C /hr (Down)	Temperature (°C)	Holding time (Min.)	Results
120	700	15	120	540	60	Parts were cracked, deformed completely, the transparency Degree increased
120	655	15	120	540	60	Not fused together
120	665	15	120	540	60	Not fused together
120	675	15	120	540	60	Met the requirements
120	680	15	120	540	60	Parts were cracked and deformed, the transparency degree increased

5.7 The method of ‘slumping’

“Glass slumping is a fun and rewarding kiln forming technique used to make bowls, platters, plates, and many other objects. Slumping projects will usually require relatively low temperatures and longer hold times in the kiln than many other types of

kiln forming projects. The idea is to allow the glass to soften, then gently sink, or slump, into the mould" (Bullseye, 2015).

Brad Walker wrote in *Contemporary Warm Glass*: "*Slumping results in a three dimensional object such as a bowl, a plate, or a piece of sculpture.*" He further pointed out that "*Slumping refers to any glass forming technique that uses heat, gravity and a mold to shape glass*" (Walker, 2000, p.53).

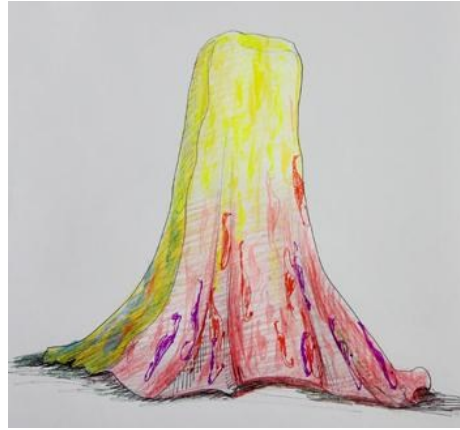
This slumping method was applied to work in this research in order to create a different inside painting technique.

A fireproof plaster mould was made according to the requirements of an initial sketch. Pictures were then drawn with on-glaze colors onto a glass sheet which had been sand blasted on one side to ensure that the paint adhered well. The frosted effect of sand blasting reduced the transparency of the glass.

After slumping, the frosted effect remained, so that the pictures were not affected. This was, in effect, a kind of reverse painting, that is the painting on the reverse side of the glass would be changed to „inside painting" through the method of slumping. One of the most interesting things was that after the sheet glass became a three-dimensional glass sculpture, the results became unpredictable and sometimes the creation was better than previously expected. Some accidental effects were more interesting than other planned inside paintings.

5.7.1 Slumping process applied to the making of *Worship*

Worship was designed to express a trend that something made the devout people wanted to follow and worship. These were the hypothetical shapes:



i) The sketch before the glass was painted ii) The sketch of the estimated effect after slumping

1) The slumping process of *Worship* was as follows:

- i) Prepared a glass sheet of a size that would meet the requirements of the finished design sketch.
- ii) Sandblasted one side of the glass sheet.
- iii) Painted onto the glass sheet following the finished sketch with on-glaze colours:



Fig. 158: The reverse on-glaze painting on the glass sheet, 30cm x 30cm.x 0.3cm.

- iv) A three-dimensional shape of a fire-proof plaster mould was predicted according to the size of the glass sheet.
- v) The sheet glass was positioned over the plaster mould in the kiln, allowing the sand-blasted side to touch the plaster mold. Space around each side was carefully considered:



iv) The finished painting glass sheet was put in a kiln.

vi) The temperature curve was set as follows:

Table17: The slumping temperature curve of *Worship*.

°C /hr(up)	Temperature (peak)(°C)	Holding (minute)	°C/hr (down)	Temperature (°C) (down)	Holding (minute)	Status
120	750	20	120	540	60	off

2) Cold work on the finished slumping work.

The cold work included digging out the plaster, washing the glass and polishing the bottom:



Fig.159: The cold work process of *Worship*: the finished slumping mould, the plaster dug out of the sculpture and the finished piece after the cold work.



Fig. 160: Jianyong Guo, *Worship*, slumped glass, reverse painting, 25cmx 15cm x15cm, 2013.

5.7.2 The slumping process applied to making *Lake*

The techniques used to make *Lake* were similar to those used in making *Worship*. The same size glass sheet was used so that the temperature curve that worked for *Worship* was used:



i) The painting on the sheet glass,



ii) Prepared for slumping



iii) Finished slumped figure in the kiln 30
x 30 x 0.3cm



Fig.161: Jianyong Guo, *Lake*, slumped glass, reverse painting, 15cm x 20cm x 20cm, 2013.

5.7.3 Making *Roar*

The work *Roar* was a portrait sculpture. A man has opened his mouth as wide as possible, with his long hair floating backward:



Fig. 162: Jianyong Guo, *Roar*, clay sculpture, 15cm x 40cm x 13cm, 2013.

But I just wanted to make a skinny effect for this work. This represented a permanent spirit: the skin could be aged but the spirit would last forever. Therefore slumping was the best way to make it:



i) The clay sculpture, 15cm x40cm x13cm.



ii) Transformed the clay sculpture into wax



iii) Making a plaster mould



iv) Lost wax procedure



v) The finished plaster mould



vi) Finished blown glass sculpture



vii) The inside painting with black on-glaze color



viii) The finished slumping glass in kiln



Fig. 163: Jianyong Guo, *Roar*, blown glass, slumped, inside painting, 5cm x44cm x 15cm, 2013.

During the process *Roar* shrank in final volume, but it strengthened the black colour. The crinkly skin enhanced the sense of movement, and the finished work looked more like a predatory lion. The slumping method gave the work a stronger spirit than the original clay sculpture.

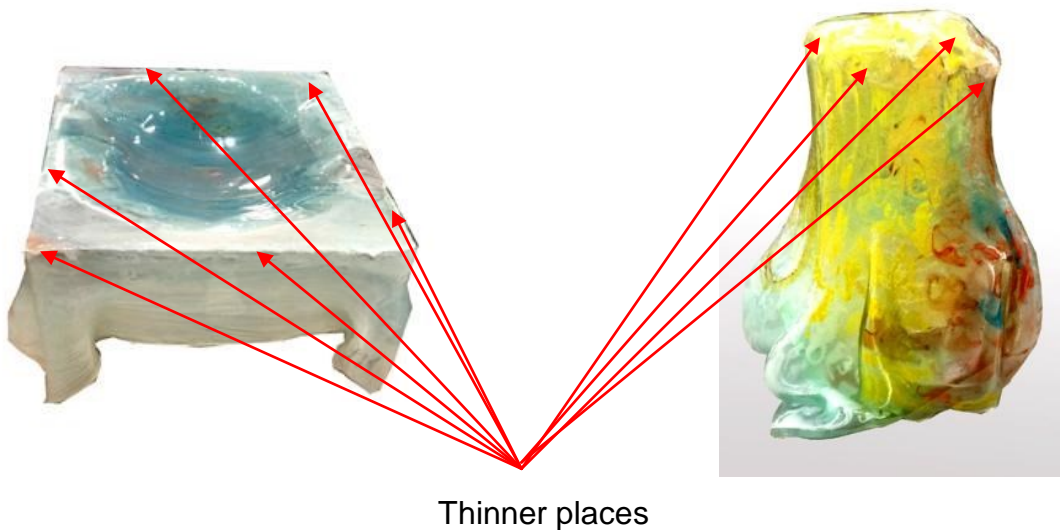
5.7.4 The importance of cold work

Some difficulties were present during the cold work process.

i) Because the firing temperature was relatively low (see Table 18), the glass body tended to firmly stick to the fireproof plaster mould because the plaster itself had not softened. Care needed to be taken when removing the plaster. The best method was after the glass and the plaster mould had cooled down completely, they were soaked in water for one hour. Then the plaster body was chipped away to reveal the glass. ii) In the process of firing, when the glass was in a soft state, it would collapse through

gravity. The glass was stretched thin, so again care was needed when removing the plaster mould. The best tools for this were made of wood or plastic.

iii) After the plaster mould was completely removed, if the glass was not stable when upright then unwanted glass had to be carefully cut off. Again after slumping the upper part of the work was left relatively thin, especially on ridges. In the process of grinding or cutting if the work was shaken too hard, it was easy to break at the thin points:



Thinner places
Fig. 164: The thin points in the slumping works.

5.7.5 Problems found in the slumping experiment

After slumping the two-dimensional sheet glass was changed into a three-dimensional glass sculpture. However, parts of the design, especially in the upper part, were deformed when the sheet glass turned into soft and became stretched. This tended to make the graphic distort, and the color of the design became pale. This limitation cannot be avoided in this slumping technique. Therefore I would usually apply blowing or casting methods, combined with inside painting to create artworks.

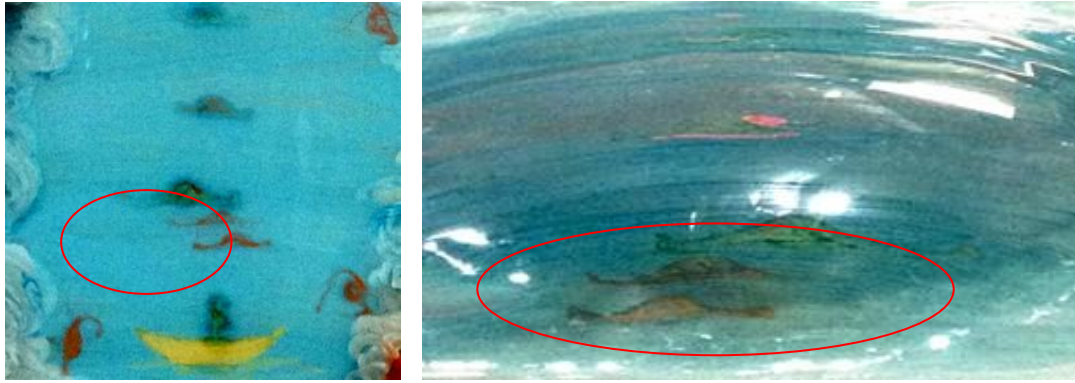


Fig. 165: The deformed figures before and after slumping.

5.7.6 An unexpected artistic effect in slumping glass works

Applying the slumping process to make these inside painted glass sculptures, sometimes produced unexpected artistic effects. For example, in the design of work *Lake*, I had not planned to get the shape of a square table. Before the process of slumping, I thought it would produce abstract shapes in some places in the work. But when the kiln was opened, an interesting shape was seen: see Figure 166. I named the work *Lake* because it looked very like a basin of blue water. In the „water“ the figures looked like some golden fishes were swimming:



Fig.166: The square table shaped slumping work



Fig.167: The basin of blue „water“.

5.8 Inside painting combined with outside painting

To combine inside painting and outside painting together in one artwork is a novel idea. The reason why this method was attempted in order to create works was because this author was aware of the special reflection and refraction attributes of glass.

Usually, the outside painting would first give the viewer a virtual three-dimensional visual sense. Then the viewer would concentrate on the inside painting. The outside painting made the glass surface less glossy. The inside painting could be seen under the transparent glass layer. The outside and the inside could suggest a misconception giving the viewer a sense of further space: see Figure 168. The skills of outside painting were relatively easy to control. After sandblasting, the surface of glassware or glass sculptures looked more like paper or canvas. The sand-blasted outside glass surface made it easy to hold paint, but it was still better to choose waterproof paint for the outside part of a glass work, such as oil paint, acrylic paint, or on-glaze colors. However, in practice oil paint was not easy to dry and on-glaze colors needed to be fired with a lower kiln temperature. So the first choice for outside painting was acrylic paint, which was easy to dry, and could easily be protected.

The first choice for inside painting was „Chinese“ paint. These colors are made of mineral pigment, extracted from plants or animals. Chinese painting colors are bright, exquisite and strong, and easy to modify.



Outside painting part looked less glossy

Inside painting part looked more glossy

Fig.168: Jianyong Guo, *Scene In Scene*, Comparison of outside painting to inside painting.

Blown glass, slumped, 10cm x 6cm x 5cm, 2014.

5.8.1 Making the work *Bridge*

- 1) Sand-blasting was applied to the outside surface of the glass bottle, but leaving a part of the surface not blasted. This original part was left for inside painting. So there were different textures on one body of the bottle, one rough and one smooth.
- 2) The inside surface of the glass bottle was sandblasted, too so that the colors would be held firmly on the glass wall.



i) The sand-blasted bottle with a part kept original.

- 3) The outside surface was painted with acrylic colors first, intending to make a suitable foreground for the inside painting. This influenced the tone of the inside painting, with the contrasting colors making a striking effect:



ii) *Bridge*, the outside painting,
x 7cm.



iii) *Bridge*, the inside painting, acrylics, 25cm
Chinese painting colors, 10cm x 7cm.



Fig.169: Jianyong Guo, *Bridge*, blown glass, outside and inside painting, 25cm x 7cm x 7cm, 2014.

In *Bridge* the cold tone of the outside painting contrasted with the warm tone of the inside painting to produce a strong comparison with a strong sense of space. The inside painting shows two figures whose heads and necks built a „Bridge“. Two other figures stood on the „bridge“ kissing. The faraway mountains made the space look

deeper and the inside painting encircled by the outside painting suggested a bright „lake“ in a broad tranquil land. The land made the lake colorful and the „lake“ gave the „land“ spirit and richness.

5.8.2 Making *Kissing*

The making process was similar to that of the *Bridge*. The inside painting and outside painting presented a different kind of pictures. The colors and tones were opposites, but consistent. As such, the conflict between the cold and warm tones could emphasize the contents of the inside painting to make it outstanding:



Outside painting



Inside painting (the blue part)



Fig.170: Jianyong Guo, *Kissing*, blown glass, acrylic, outside and inside painting, glass bottle, 15cm x 4cm x 4cm, 2014.

For this work, the very strong contrasting colors of red and blue were chosen. The outside was red, with black, and the inside was blue. The outside paintings were pairs of kissing figures, all with long necks like a pair of ropes twisting together. These figures gave a sense of passion, of love and of harmony. This symbolized the „kissing“ between everything, especially nature and human beings. This reflected Taoist thought.

The inside painting depicted two pregnant figures. They were blue and they stood in a blue environment, it looked more like the bottom of a blue sea. The sperm swam around them like fishes. These figures reflected the Taoist philosophy „Yin“ and „Yang“. The meaning was the harmony of male and female, negative and positive in nature. The two pregnant figures stood for mothers, the Earth, fertility and the source of life. Cold and warm colors were harmonious as a whole.

5.9 Printing combined with inside painting

Printing can perfectly transfer an original picture onto glass. Printing techniques combined with inside painting in glass sculptural forms is a new idea. The challenge lies in integrating of printing and inside painting. Different dimensional effects are offered when the viewer changes their viewpoint. The printed picture will appear to shift its position when seen with different parts of inside paintings. The process of making *Dragon & Phoenix I* took this into account:



i) Silkscreen the decal



ii) Put the decal into water for one minute



iii) Stick the decals onto the glass
glass



iv) Fire the decal onto the



v) Draw lines inside the work



vi) Set the blue background



vii) Create the integrate environment for the decals



viii) Paint details and finish the inside paintings

Fig. 171: Jianyong Guo, The process of making the glass work *Dragon & Phoenix I*



Fig.172: Jianyong Guo, *Dragon & Phoenix I* , blown glass, silk-screen printing, and inside painting with Chinese pigment, 30cm x 12cm x 12cm, 2016.

In this piece the shadow of the dragon cast onto the inside painted layer can be clearly seen. It adds to the sense of depth and multiple dimensions:

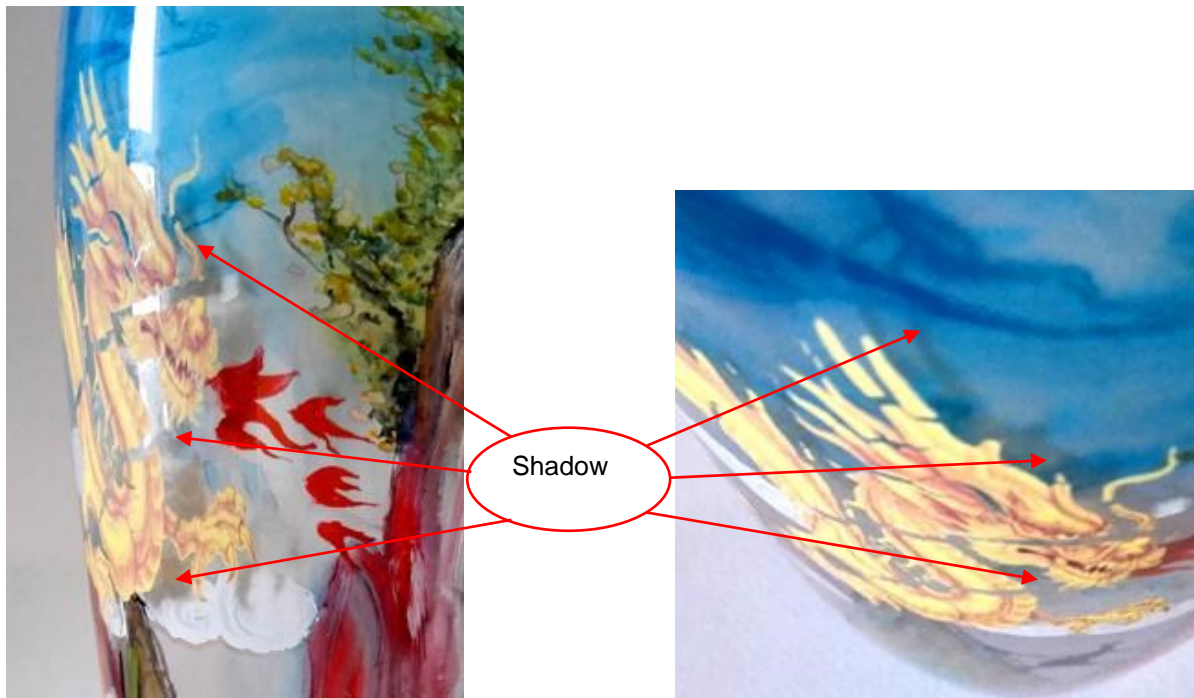


Fig. 173: The shadow was cast from the printed dragon.

The glass work *Dragon & Phoenix I* above expressed the „harmony“ between people, animals and Nature. Everything that lives in Nature should be harmonized, with the „Yin“ and „Yang“. In this work for instance, the balancing of warm and cold colors, fire and water, the ridge and the gorge, and the Dragon and the Phoenix.

In this version of *Dragon & Phoenix II*, the glass had a silk-screen printed pattern applied, and the other patterns, suns and moons that are kissing, were achieved by inside painting. The overall meaning is same with the *Dragon & Phoenix I* above.



Fig. 174: Jianyong Guo, *Dragon & Phoenix* II, cast glass, printing, inside painting, 15 x 20 x 12 cm, 2016.

5.10 A comparison of different types of inside paintings

This research was based upon the traditional inside painting of Chinese snuff bottles. One of the aims was to try to produce some other forms of inside painting in order to

develop the traditional style. At the same time to apply new forms to enrich contemporary Chinese academic glass teaching (see 1.4). A comparison is shown in Table 18:

Table 18: A comparison of different forms of inside painting.

Forms	Authors	Works
Traditional inside paintings	Xuanwen Gan Xishan Wang Yizi Liu	
Blown glass inside painting	Jianyong Guo	
Cast glass hollowing and inside painting	Jianyong Guo	
Fusing with inside painting or calligraphy	Jianyong Guo	
Slumping making the inside painting effect	Jianyong Guo	

Outside painting combined with inside painting	Jianyong Guo	  
Flame worked glass with inside painting	Jianyong Guo	   
Printing combined with inside painting	Jianyong Guo	   

The table above lists three stages of traditional inside painting artists:

Xunwen Gan was the first artist of inside painting of snuff bottles, working in the early nineteen century. Xishan Wang is the eldest traditional inside painter alive now. Yizi Liu represents the new generation who has set a movement of „New Inside Painting“ from 1994 (see 2.1.2).

The different forms of my new model of inside painting all presented a new look. They were very different from traditional inside painting of Chinese snuff bottles. For example, the combination of the „outside“ glass figure and the „inside“ contents, and the unexpected effects of refraction and reflection are all lacking in the traditional inside painting of Chinese snuff bottles. Figure175 shows a glass sculpture with two embracing and kissing lovers. The inside painting of this work also expressed the enthusiasm of embracing Nature. Hence, „outside “and „inside“ were combined together naturally.

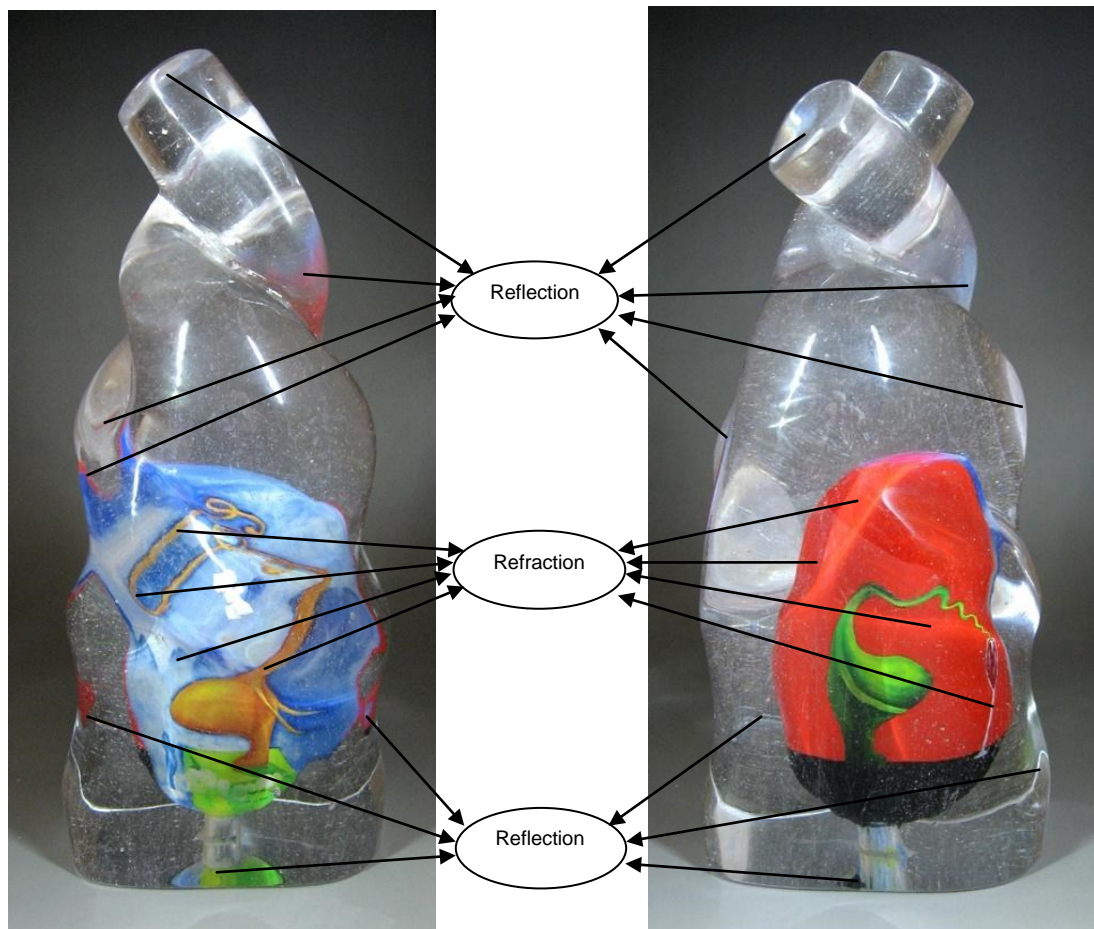


Fig.175 Jianyong Guo, *Embrace and Kiss*, kiln-cast glass, inside painting, 25cm x 12cm x 12cm, 2016.

The printing techniques combined with inside painting linked Western culture with traditional Chinese culture. It was a different style of inside painting and its aim was to expand the development of the inside painting art style.

5.11 Summary

In this chapter the author finished a body of works to show how the skills of traditional inside painting of Chinese snuff bottles could be applied to contemporary glass sculptures. Contemporary glass art in China is still in its infancy (see Chapter 4). Many Chinese fine art academies have glass courses currently, but glass casting is the dominant method used. There are hot glass studios, courses in glass mosaic, stained glass and architecture glass in several art schools, but there are no glass painting courses in Chinese art academies. Chinese art schools have a strict recruitment policy and process. Applicant are usually expected to pass examinations in painting, pencil

sketching, life model or nature landscape work and design. Hence, Chinese students in fine art academies have a relatively high level of skill in painting and imagination in design. This author plans to promote his research in Chinese glass academies.

In contrast to the vibrant recruitment of students in universities the numbers of inside painting craftsmen in studios is falling. This is due to social, cultural and economic decline in snuff, as well as changing art practice. In order to develop the traditional culture and explore new ideas for contemporary Chinese glass art, this research has shown several different approaches to advance contemporary inside painting.

After hollowing, cast glass sculptures can retain a thick wall. This style of glass work has a strong effect in terms of reflection and refraction where the inside painting has been carried out, the unpainted parts of the glass sculpture would reflect and refract the colors and graphics (See Figure 175). The transparent character of glass is highlighted. This process required some special tools and working experience. Moreover glass casting, polishing and hollowing is time consuming. This explains why the author collaborates with experienced Chinese craftsmen.

In glass blowing work, two main methods were employed - free hand blowing and mould blowing. The works made by free hand blowing allowed more flexibility. But the techniques and experience of the blower needs to be relatively high. During the process of blowing works for this research, James Maskrey, who is the technician of National Glass Center of the UK, assisted the researcher. This author chose several blowers who had experience in blowing for more than 20 years in China (in 2014), but only one of them could make some successful glass sculptures by free hand blowing (see Figure 119 in 5.3.1).

Mould glass making was not easy either. Some of the blowing works were slightly different in resultant shapes from the same mould blown by the same blower at different times. Because of the relatively thin glass wall compared to the cast ones, the blown glass works did not show strong effects in reflection and refraction. Some thin blowing works looked more like stained glass windows when the light shone through (see Figures 135 & 136).

The flamed works looked very thin compared to the other kind of glass work. If the flame glass work was small in size, it could be thicker than if you were making it into a big piece. This was/is because the glass pipe used for flame work, if too thick, would not be easy to melt for blowing. In addition, it was easy to break through the glass wall during the process of inside sand- blasting. Therefore, flame work is not suitable for making bigger glass sculptures for inside painting.

Other forms of inside painting work in this research were also significantly different from the traditional style of the Chinese snuff bottle. The fusing method melted two or more glass bottles or glass sculptures together to achieve a „closed“ inside space. The closed space was painted with low temperature on-glaze colors. After kiln-style fusing, closed spatial inside painting or inside calligraphy could be applied (See 5.6). Some works after fusing could be deformed, but this could yield a more interesting result beyond the original ideas of the author (see Figure 157 in 5.6: *Collapse*).

Slumping work was even more unexpected. The results were not known until the kiln was opened. Although some pieces would not meet the requirement of the author, some were much better than originally imagined (see Figure 163 in 5.7.3: *Roar*).

The idea of combining inside painting with outside painting came from an occasional find during a process of sand blasting by this author. After a glass bottle had been sand-blasted inside, this author peeled off a label which was stuck on the bottle. A deep dimensional effect was found: the labeled place which had not been sand-blasted was kept clear. This author then painted the inside and outside of the bottle, and a more attractive area appeared, where the inside painting across the transparent glass looked more outstanding compared to the rough outside painting. Enhancing the comparison of the cold and warm colors made the effect even stronger (see Figure 170 in 5.8.2: *Kissing*).

Printing combined with inside painting was another experiment. Printing techniques can copy a picture onto the glass accurately. This author printed some complex pictures inside or on the outside of a glass work. Painting inside integrated with the

printing creating the overall image. Thus, Western printing techniques were combined with those of Chinese inside painting.

Different forms of inside painting were investigated and compared. This provided a basis to promote and develop inside painting. Further research and investigation would interest students and be of use to glass artists in China or abroad.

Chapter 6 – Conclusions and further research

Chapter 6 documents the conclusions of the thesis. The research aims and objectives are made clear according to the research outcomes. The contribution of this research is listed and further research areas and collaboration also suggested.

6.1 Conclusions related to the research aims and objectives Research

aims:

- 1) To create a body of creative practice that shows possibilities for developing „traditional“ inside painting techniques of Chinese snuff bottles.
- 2) To create a body of creative practice that shows how to create the new models for developing contemporary Chinese academic glass teaching.
- 3) To develop, demonstrate and record how one artist might integrate ideas and aesthetic direction through inside painting for others to benefit.

Research objectives:

- 1) To develop the traditional Chinese inside painting of snuff bottles through the influence of contemporary glass art.
- 2) To develop the traditional Chinese inside painting to influence contemporary academic glass teaching.
- 3) To create a body of glass artworks using inside painting which integrate glass artworks and paintings as examples others might use and adapt.

6.1.1 Conclusions related to research aim 1 and objective 1

In order to develop and move forward the art of Chinese snuff bottle inside painting it is necessary to understand the historical aspects of the art form, and its advantages and limitations. Where this art stands in relation to traditional forms of Chinese art, including Chinese calligraphy, together with the influence of Taoism also has to be considered. Taoist thought is the „root“ of the „tree“ of the traditional Chinese arts. It is the guiding ideology of Chinese culture.

Chinese painting was developed gradually (see 2.3.1) into a mature and accomplished level. The writing materials, methods and style of writing of traditional Chinese calligraphy offered a painterly principle for Chinese painting (see 2.3.2).

Developments in traditional painting were naturally absorbed by inside painters and both cultures depicted landscapes, birds and trees in their works.

To „develop“ the art form new thinking was needed and contemporary inside painting artists, such as the „new inside painting movement“, have tried to show new ideas but little progress had been made to date. Such „innovators“ have merely advocated that inside painters should work according to sketches of nature (see Figure 25).

However, those artists developing traditional inside painting of Chinese snuff bottles had managed to set in motion a trend of innovation. The limitations that existed in traditional Chinese inside painting were obvious, as discussed in Chapter 3. The art form and contents were nearly always the same.

In addition the artists' initiative was not the driving force behind the art form, but economics, both in the past and in contemporary times. This has meant that in essence, inside painters of the snuff bottle were using other peoples' ideas - old ideas, not their own. Their work did not reflect their own personality.

The use, economy and status of painting snuff bottles fell. Numbers of painters are declining. Inside painting is considered a folk art.

The original motivation for this research was to find the „bridge“ between traditional inside painting and contemporary glass art. Practice-led research subsequently carried out involving design and the production of many studio-based personal works using the methods of blowing, kiln-casting, fusing, flame work, outside painting combined with inside painting, printing combined with inside painting.

The resulting products were all inspired from Western glass painting, printing and calligraphy, and applied using the methodology of traditional inside painting of Chinese snuff bottles. All were different from typical traditional snuff bottle painting.

Well-known contemporary glass artists, such as Bertil Vallien and Ulrica Hydman-Vallien (Sweden), Cappy Thompson (American) and Dana Zamecnikova (Czech Republic) commended my research and art works (see Appendix 1).

Questionnaires given to glass artists, teachers and students in four of the main art academies in China resulted in favorable responses to my research and art work (see Appendix 6.5.4). This indicates a positive development for traditional Chinese inside and the contemporary glass world. A „new model“ has therefore been publicly presented.

6.1.2 Conclusions related to research aim 2 and objective 2

How to enrich glass teaching is the responsibility of every Chinese glass artist, glass teacher and glass student. The research survey showed that glass art teaching techniques was limited in China. A new model for contemporary academic glass teaching was required and is presented (see Chapter 4).

Casting is the main teaching approach in China, but other courses that include hot glass work, involving flaming and fusing glass are emerging in a few art academies“ glass studios (see 4.1). However they do not have glass painting courses or, more specifically, inside painting courses (see Appendix 6.5.5). This current situation stimulated the motivation for this research and subsequently which provides new models for Chinese academic glass teaching.

If the persistent limitations of traditional Chinese inside painting (see 6.1.1) are overcome then the feasibility of developing the art of painting Chinese snuff bottles is possible. The way to do it exists already in the Universities and Academies of art in China because the glass academics and students have a solid foundation of art practices in their courses. There are far more students than there are Chinese inside painters (see Appendix 6).

In addition, the Universities and Academies of Art, which share equal status, currently have a high social position in contemporary China, and it is unlikely to change. New approaches to creating art can stimulate the interest and practice of art students, university staff and artists. It is hoped that the research will enrich and extend the glass courses (see Appendix 6.5.3).

6.1.3 Conclusions related to the research aim 3 and objective 3

Typically, the Chinese artist looks upon his artworks as his „children“. Every child has its own personality, an integration of mind body and spirit. Similarly, the „body“ of artwork should reflect its inner „soul“ and thus present its own special personality.

Unfortunately traditionally painted Chinese snuff bottles had remained almost unchanged for 200 years – their soul is essentially a „clone“ of what had been produced before (see 3.1).

The survey research in Chapter 3 revealed the shortcomings that exist in this art form. As the analysis in 3.3.2 has discussed, Chinese artists have always concentrated on the technique itself. The ability to be able to copy was highly valued. Certain answers to the questionnaires referred to some renowned traditional inside painters in China (see Appendix 3.1 & 3.2), which reflects current conservative thinking.

In view of these limitations in the inside painting community, this research was stimulated to develop some new, different, practices in order to move the art form forward. The core aim of the action was how the art „form“ integrated with inside painting „content“.

Chapter 5 describes the different practices that were carried out: the cast glass sculptures *Maiden I* (5.2), *Pregnant I* (5.2), *Pregnant II* (5.2), *Girl* (5.2) and *Love in Nature* (5.2); the blown glass sculptures *Waiting* (5.3.1), *Pregnant* (5.3.2.1), *Seasons* (5.3.2.2), *Clothes* (5.3.2.3) and *Embrace and Kiss* (5.11).

In all these glass sculptures this author attempted to express a personal view of „harmony“, guided by Taoist thought. The figures of the glass sculptures themselves and the inside paintings combined together to present a narrative that „spoke“ of the paintings“ aspirations. See the analysis in 5.2 for the work *Girl*.

Take, for example, the flamed work *Love in Silence*: here the glass figure itself is a male who is showing his masculinity. The inside painting depicted active sperm and erect penises to reflect the manly feature

Comparably, the two pregnant females adore the masculinity. The sperm formed the shape of a red „heart“ to reflect the mutual love. Together these images expressed the harmony between „Yin“ and „Yang“.

Red Heart is an abstract „pregnant“ body. The inside painting is a roaring man’s portrait whose cap has a red star. The meaning is a song of praise for the love of mother.

Clouds is a long „neck“ jar. The inside painting for it is a landscape: some floating clouds with a long-necked figure who is yearning for his ideal future.

Big Landscape and *Collapse* used fused re-formed bottles with inside painting. The calligraphy relates to Taoist ideas, which express a sense of harmony.

Worship’s slumped glass has a monumental form. The inside was painted with many different colored figures whose necks were stretched and bent sharply to represent their worship for something important: a belief.

Lake is a basin-shaped blue indentation, which resembles an actual lake. This represents the beautiful landscapes of Earth which should be protected.

Roar is a slumped glass head portrait, with long floating hair and a wide open mouth. This describes the human spirit for life and the struggle of living.

Scene in Scene, *Bridge* and *Kissing* apply „outside“ painting which is combined with „inside“ painting. The three works attempt to display my view of the beauty of life.

Dragon & Phoenix I and *Dragon & Phoenix II* combine printing with inside painting to show the importance of everything being in harmony with Nature. The printing patterns and the inside paintings together have multi- dimensional views.

The processes involved while making the „new forms“ of glass inside paintings were documented. Glass artists, glass students and other people who are interested may use my working methods to inform their practice and artworks.

6.2 Original contribution to knowledge This research has offered:

- 1) Clarification of the limitations that exist in the art of traditional inside painting of Chinese snuff bottles.
- 2) Examples and information describing the application of inside painting which aid Chinese university glass teaching.
- 3) The development of a range of new artworks inspired by Western contemporary glass painting, glass printing and calligraphy which show how this artist has used the research for individual creative expression, including a detailed recording of inside painting techniques which others might use and develop.
- 4) Developmental practices for developing both inside painting of Chinese snuff bottles and contemporary Chinese academic glass teaching.
- 5) A range of practical models show how one artist might integrate ideas and aesthetic direction through inside painting into glass art works.

Contribution 1 is the very original thinking for this research. The traditional „folk art“ of inside painting of Chinese snuff bottles is mature in technique, and in contemporary China, this „folk art“ still repeats the old art form and content and is not progressing with the times. This research surveyed the negative reasons (see Chapter 3), and then set upon finding a way to moving it on.

Contribution 2 is based upon personal glass teaching experiences. This author has discussed the interests of students in glass teaching previously. Because of the university entrance examination system in China, potential students have to become very good at painting, drawing and sketching, together with design and creation, in order to go to a „good“ university. Hence, most of the potential glass students already have a good foundation in art.

They all want to apply their personal painting ability into their glassworks, but they have had little idea about how to go about it. The outcomes of this research offer a potential opportunity for improving glass teaching in China.

Contribution 3 is about the „new model“ of glass working in this research which has been inspired by Western contemporary glass painting, glass printing and calligraphy. It has offered some special creative approaches for the contemporary glass world. According to the research survey of Western and Chinese glass painting, no other artist has been found who has applied inside painting methods into personal glass sculptures until now. This research had produced a body of work as examples to inspire all glass studios.

Contribution 4 relates to the developing of the traditional inside painting of Chinese snuff bottles. The survey research (see 2.1 & chapter 3) shows that current traditional inside painting in China has little chance to develop by the traditional inside painters themselves (see Appendix 3). This research and personal practice has shown the feasibility of developments both in contemporary Chinese university glass teaching and inside painting. A range of models of inside painting are offered, which combined the glass form and the inside content. Chinese students and artists can use the methods recorded in the research to create their own artworks. Hence, contemporary Chinese glass teaching may be enriched and developed.

Contribution 5 is concerned with integration of artists“ ideas, feelings and aesthetics within their glass works and practice. Chapter 5 offers a body of models for resolving such crucial concerns. In the traditional inside painting of Chinese snuff bottles the art form and art content are stereotyped. Similar sized and forms of bottles have to suit

all sorts of art content. These bottles do not facilitate art, but rather craft decoration. My research practice provides a body of ways to address such shortcomings. My glass sculptures seek to integrate my ideas, feelings and aesthetic direction, which are deeply affected by Chinese Taoist thought. The outside and the inside are harmonized.

6.3 Areas for further research and collaboration

During this research several ideas emerged that warrant further post doctoral research investigation. This would lead to further adoption, improvement and extension of the „new model“.

6.3.1 The combination of other materials

The inside painting of glass sculptures was combined with studio-based printing and outside painting which resulted in some fascinating effects. What would result from inside painting glass-works being combined with other materials, for example, metal, wood, ceramics or stone? Would this create new forms and how would they be combined? Further research into such possibilities and potential uses would deserve investigation.

6.3.2 The application of inside painting into public art and installation Inside painting of large glass sculptures (see Figures 179 & 182) would present unique visual experiences. It could also be combined with other creative approaches to form special art installations, such as combining inside painting with architecture or lighting. A public art installation is presented (Figure 176). This is a high profile proposal which would encourage participation in the public domain.



Fig.176: Krzysztof Wodiczko, *Let Freedom Ring*, Bunker Hill Monument, Video projection, Boston, 1998.

This researcher took an M.A. degree from the Central Academy of Fine Arts in Beijing. The major topic of research was „Public Art“, over a 3-year period. Subsequently, personally-made artworks have been exhibited in many galleries, festivals and in specific public sites (Figs. 177 & 178).



Fig. 177: Jianyong Guo, *Life*, blown glass, Public Design, 2007



Fig. 178: Jianyong Guo, *Ancient Instrument Xun*,

2005 Finnish Blue Ice International Competition, 200cm x 100cm x 80cm.

The Finnish *Blue Ice International Competition 2005*, which I participated in, attracted a large audience. Many local people came to see the ice sculptures which were sited in several public squares and gardens. This competition, with artists/teams making new work was a public art activity. This experience led me to conceive the idea of applying inside art to a sculptural structure in a public site, festival or environment.

Plans for possible future outdoor public installations involving inside painting were therefore designed:

1) Plan I : the *Snuff Bottle*

This plan was to transfer the „Chinese snuff bottle“ out of the museum into the public consciousness, where the art form would reach more people:



Fig. 179: Jianyong Guo, *Snuff Bottle*, public art design, metal, glass, 600cm x 350cm x 250cm, 2015.

The *Snuff Bottle* would be made with metal and glass in the shape of a traditional snuff bottle. Then, as in the Western technique of stained-glass production, sections of glass would be measured to fit into the sections of frame, then inserted and fixed.

People would be encouraged to paint „inside“ the bottle and therefore be able to see their paintings from „outside“. A public interactive performance would be created.

Structured access would be required to enable participants to paint in the highest areas. Projectors and computers also would enable people to paint on computer graphics and slides. Their images could be projected onto the interior surface of the glass bottle:

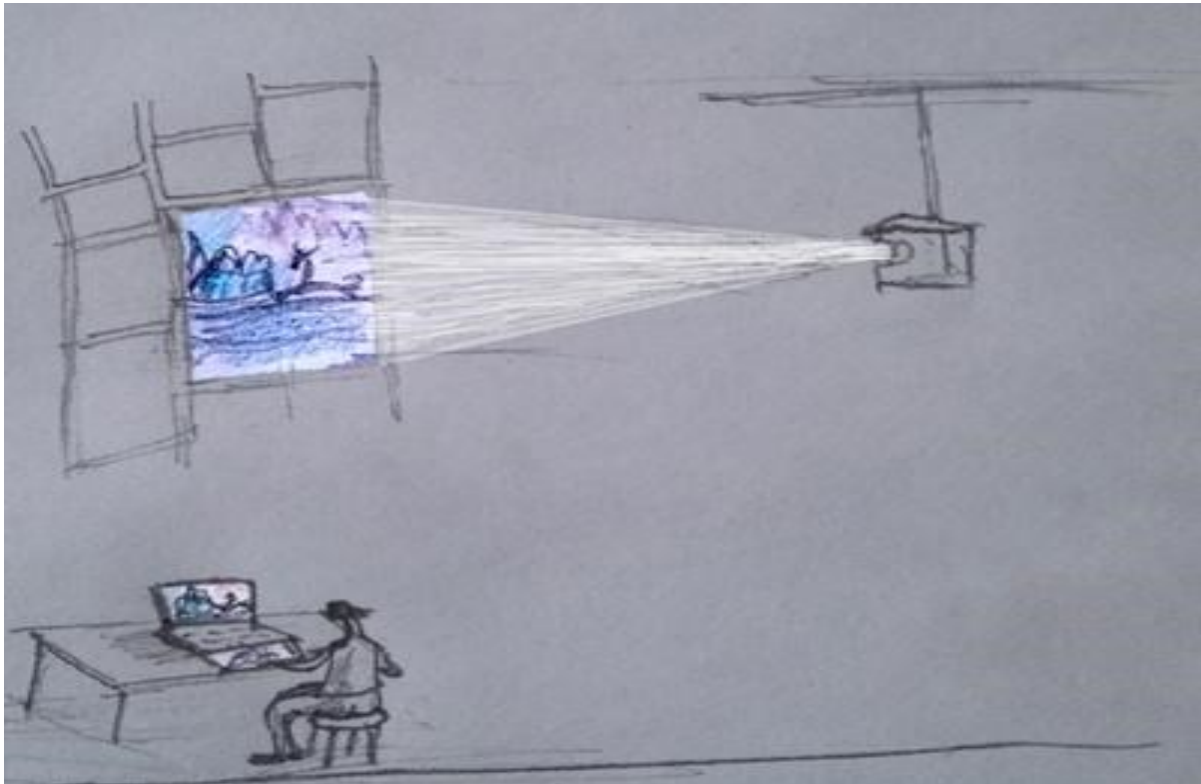


Fig.180: Jianyong Guo, *Device*, projector, computer, graphics tablet, 2015.

2) Plan II *The Prayer*

Similarly in Plan II *The Prayer* a figure, based on *Pregnant* would be made (see Figure 136 in 5.3.2.1). This is homage to French artist Jean Francois Millet (1814-1875), with reference to the painting, *The Angelus* (Figure 181).



Fig.181: Jean Francois Millet, *The Angelus*, 1857-1859 Oil on canvas, 55.5cm x 66cm, D'Orsay Museum, Paris.

People should be true to those things they believe in. According to Taoist thought, everything should be ordered in its development, everyone should be honest and love each other. So, the figure needed to „pray“ for the harmony of life:



Fig.182: Jianyong Guo, *Prayer*, projector, computer, metal, glass, 800cm x 400cm x 350cm, 2015.

These „Plans“ suggested ideas which are very different to the traditional inside painting of Chinese snuff bottles. Many contemporary Chinese art academies have public art courses. This research recommends that inside painting courses added to the Chinese glass teaching curriculum, with the element devoted to public art. Such an option would prove attractive and extend the range of contemporary Chinese glass.

6.3.3 Widening the appeal of inside painting to a greater potential audience

Indeed the direction, approach and recommendations indicated as above would also be of interest to „foreign“ artists, studios and high art education institutions across the world.

6.3.4 Further collaboration

Some technicians in the UK and craftsmen in China collaborated in the techniques in hot glass, polishing, and hollowing for this research (see 5. 2). Such collaboration could take place between the „new model“ creation methods with the skillful Chinese inside painters to create high value inside paintings.

In addition inside painters could collaborate with designers and architects to perform large-scale sculptures, decorations on architecture, even in industrial products.

6.4 Concluding remarks

This research provides a body of novel approaches to test how to develop Chinese inside painting. It indicates a more open vision in terms of technique, form and content.

The aims and objectives have been achieved through contextual review and practice-led research. The contributions to knowledge have been clarified. Other glass artists, practitioners, designers and architects, could benefit from the research findings. In particular Chinese art academies could extend their current practices.

My research has also opened up a number of rich research and collaborative avenues. Some have been initially investigated, but further research would be rewarded. Combinations of materials and installations have shown that inside painting has the

potential in the public arena. In this way, the traditional inside painting of Chinese snuff bottles might be developed by attracting a wider audience.

Jianyong Guo, 2016.

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Weng, W.G. (1978). *Chinese Painting and Calligraphy*. Canada: General Publishing Company, Ltd.

Whitelocks, S. (2011). "Chinese Snuff Bottle Measuring Just Three Inches High Smashes World Record as It Sells for £2m". (Online). Available at <http://www.dailymail.co.uk/femail/article-2067618/Chinese-snuff-bottle-measuring-just-inches-high-smashes-world-record-sells-2m.html>. (Accessed May 2014).

Wightman, K. (2011). *The Development and Application of Creative Printmaking Processes for The Decoration of Blown Glass*. PhD. Thesis. University of Sunderland.

Wightman, K. (2012). *Kathryn Wightman Glass*. (Online). Available at: <http://www.kathrynwightmanglass.com/>. (Accessed January, 2016).

Wu, X. (2010). *Italian Artist Massimo Cruciani's White and Black World*. (Online). Available at <http://paper.wenweipo.com/2010/04/11/OT1004110029.htm>. (Accessed March, 2015).

Xiao, T. (2014). *Export glass painting in Qing Dynasty*. (Online). Available at http://blog.sina.com.cn/s/blog_4cfbe0890102fdyb.html. (Accessed February 2015).

Xue, L. (2009). *The Investigation into the Development of Glass as an Expressive Medium in China Through Direct Contact with Western Methods of Making, Decoration and Forming*. Ph.D. Thesis. University of Wolverhampton.

Yang, J.H. (2008). *Established International Association of Chinese Snuff Bottles*. (Online). Available at <http://www.122311.com/num/2677006857.html>. (Accessed March 2015).

Ye, T.F. (2007). *Artist and Craftsman*. (Online). Available at <http://www.chinawriter.com.cn/2007/2007-03-19/40699.html>. (Accessed May 2015)

Yee, C. (1955). *Chinese Calligraphy*. London: Methuen.

Yi, P. (2014). *Cross Cultural Lampworking for Glass Art: The Integration, Development and Demonstration of Chinese and Western Lampworking Approaches, Materials and Techniques for Creative Use*. Thesis. University of Sunderland, UK.

Yuan, T.D. (2007). *The Myth of Chinese Smoking*. Ji Nan: Shan Dong Illustrated Press.

Yu, N. (2007). *Small Antique Staged a Surprise: the 10 Most Expensive Snuff Bottles*. (Online). Available at http://news.xinhuanet.com/collection/2007-09/29/content_6811072.htm. (Accessed March 2015).

Zamecnikova, D. (2016). *My Glass Painting Methods*. (This quote came from an e-mail interview in January 2016. See Appendix 1).

Zheng, S. (1979). *Glass Bottles of Coloured Drawing*. Beijing: The World Cultural Relic Press (Chinese version).

Zetterström, J. (ed.). (2010). *Ulrica Hydman-Vallien: A Paradise Attack*. Stockholm: Arvinius Förlag AB.

Zetterström, J. (ed.). (2010). *Ulrica Hydman-Vallien: A Paradise Attack*. Stockholm: Arvinius Förlag AB.

Zhu, P. (1996). *Modern Artist Lin Fengmian*. Shanghai: Shanghai Xuelin Publishing House.

Zhu, P and Xia, G. (1988). *The Historical Narrative of Snuff Bottles*. Beijing: Forbidden City Press.

Zhu, Q. Zh. (2006). *Chinese Philosophy Influenced Europe*. Shanghai: Shanghai People Publishing House.

Zhuang, X.W. (2007). *Institution School Glass Art*. Shanghai: Shanghai Bookshop Publishing House.

Appendix 1: Comments of glass masters on the personal inside paintings produced for this research

The interviews with each of the glass masters Bertil Vallien, Ulrica Hydman-Vallien, Cappy Thompson and Dana Zamecnikova yielded different comments to the inside painting glass sculptures produced during this research. Below are screenshots for each e-mail with some important sentences marked with red lines, See Figures 183-186.



Fig. 183: Comments by Ulrica Hydman-Vallien, 2015.



Fig.184: Comments by Bertil Vallien, 2015.

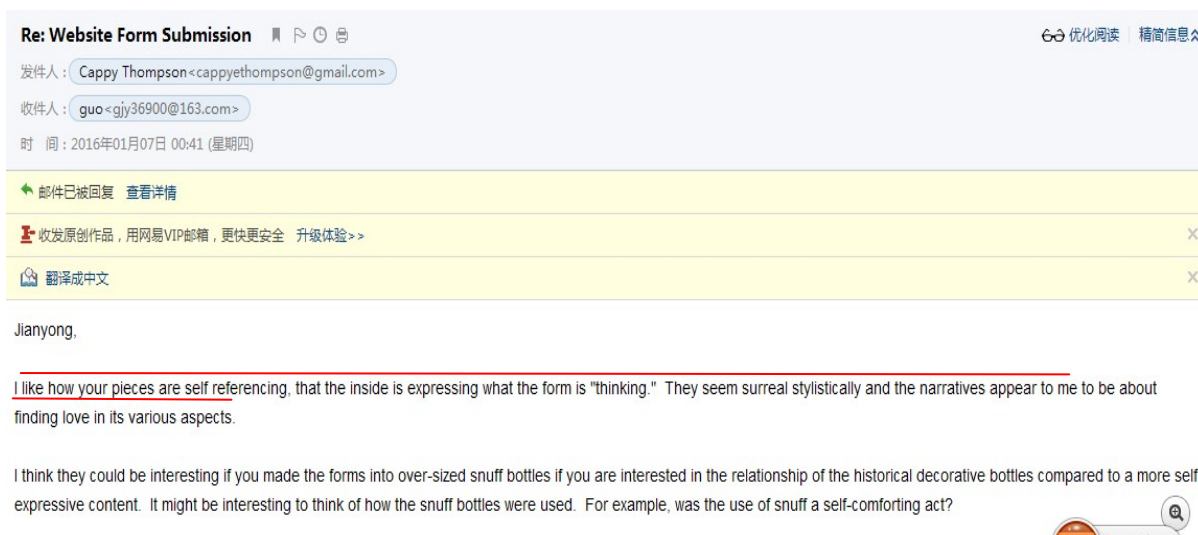


Fig. 185: Comments by Cappy Thompson, 2016.



Fig. 186: Dana Zamecnikova introduced her painting material and methods to this author, 2016.

Appendix 2: Study trips

These were an important research method in this work and resulted in a lot of information and materials being gained to enable the continuation of the work. Trips were made to China, London and Sweden:

Table 19: The details of study trips, 2014-2015

Country	Time	Place	Content
	March, 2014	Beijing	Visited Beijing inside painting school, met the representative inside painters, Shouben Liu and his Students, talked about the developing of traditional inside paintings.
			Went to Sanlian Bookshop which was the main bookshop in Beijing. Found some inside painting books for reference (See 1.2.1).

China				Visited the glass studio of Tsinghua University to survey the teaching methods in glass and the students" opinions about glass teaching courses. Visited glass artist Donghai Guan to survey the contemporary academic glass teaching.
	March, 2014	Hebei	Shijiazhuang	Visited inside painter Yizi Liu who advocated the „New Inside painting Movement" in 1994 (See 2.2.2). Talked about the developing methods of new inside paintings.
				Visited the Heibei Province Xinhua Bookshop to find reference books of inside painting (See 1.2.1)
		Hengshui	Visited the Wang Xisan Inside Painting Museum, surveyed the inside painting of Chinese snuff bottles, collected many reference information.	
			Visited the main Ji school inside painters, such as, Xishan Wang, Ziyong Wang, Guoshun Fu, Yiming Jin, Yi Ding, Chunguang Wang, Dayong Wang, Runpu Chen, Guanyu Wang, Jianguang Lu.	
			Organized a meeting about the developing of traditional inside paintings in Wang Xisan Inside Painting Museum.	
			Visited the Wang Xisan Inside painting School, surveyed the inside painting techniques.	
			Surveyed the snuff bottle making factory to understand the making process of snuff bottles for inside painting.	
		Shenzhou	Visited the famous inside painter Zenglou Zhang and his personal inside painting museum, collected some reference materials, talked about the developing of traditional inside paintings.	
	March, 2014	Shandong	Jinan	Surveyed the glass teaching methods in Shandong University of Art and Design, Surveyed the teachers and students opinions about glass courses.
				Went to the biggest Jinan Xinhua Bookshop to find reference materials (See 1.2.1).
		Boshan	Visited Aimei Hot Glass Factory, talked about collaboration in my glass sculptures making related to this research.	
			Visited flame working master Huagang Li to talk about collaboration in flame works making in this research.	
			Visited Zhenhua Hot Glass Factory to collaborate some of the glass sculptures in the research (See 5.3.1)	
			Visited Renli Glass Museum to collect writing materials.	
			Surveyed the Lu inside painting school and Zhang Guangqing Inside Painting Institute, collected reference materials, talked about the developing of traditional inside painting of snuff bottles with the representative of Lu school Guangqing Zhang. Talked about the developing of new inside painting with Luhua Zhang who was one of the „New Inside Painting Movement" advocates in 1994 (See 2.2.2).	
		March, 2014		Shanghai
	Went to the Shanghai Xinhua Bookshop to find references for writing (See 1.2.1).			
March, 2014	Jiangsu Jiang	Nanjiang	Visited the Nanjing Xinhua Bookshop to collect writing references	
		Suzhou	Visited Suzhou Crafts Art Museum and Suzhou Contemporary Art Museum to survey the writing materials.	
			Visited glass artist Huang Feng to talk about contemporary glass art in China.	
				Visited Suzhou Xinhua Bookshop for writing materials.
	April, 2014		Zhengzhou	Visited crafts factory to talk about collaboration about hollowing my casting glass sculptures in the research (See 5.2).
				Visited the Henan Xinhua Bookshop to collect writing references.

China	April, 2014	Hangzhou	Visited the glass studio of China Academy of Fine Arts to survey the glass teaching methods and the students' opinions about glass teaching and courses. Visited glass artists Han Xi. Went to the Hangzhou Xinhua Bookshop to collect writing materials.
	April, 2014	Boshan	Joined the biggest inside painting exhibition in Renli Glass Museum, visited the inside painter and representative of Yue School who was Yiing Lai. Visited inside painter Tieshan Zhang. In the exhibition conference I Jointed the talking about the developing of traditional inside paintings.
UK	May, 2014	London	Visited Victoria and Albert Museum to survey the contemporary glass art and the collection of Chinese snuff bottles (See Fig. 73).
			Visited British Museum to survey the collection of Chinese snuff bottles.
			Visited Tate British Museum and Tate Modern Museum to survey the contemporary paintings and sculptures.
			Visited British National Gallery to survey the traditional oil paintings.
	June, 2015	London	Visited the fine art MA graduated exhibition of the Royal College of Art, glass works, sculptures, paintings, jewelry, architecture.
			Visited Thomas Goode Glass Gallery to survey the contemporary glass artworks.
			Visited Victoria and Albert Museum to survey the contemporary glass art and the collection of Chinese snuff bottles
			Visited British Museum to survey the collection of Chinese snuff bottles.
			Visited Tate British Museum and Tate Modern Museum to survey the contemporary paintings and sculptures.
Sweden	Sep. 2015	Stockholm	Visited many art galleries to survey contemporary arts.
		Lessebo	Interviewed famous glass artist Bertil Vallien to talk about glass art and my works in this research.
			Interviewed glass painting artist Ulrica Hydman-Vallien to talk about painting glass art and works in this research.
			Visited glass factory Kosta Boda to survey the contemporary glass artworks and the making process of painting, blowing and casting in glass studio.

Appendix 3: Conferences

During this research three conferences were attended.

3.1 In Hengshui (衡水)

Hengshui is the most important place for inside painting of Chinese snuff bottles in China and is famous for it. After a visit to Wang Xisan Inside Painting Museum (March 21, 2014) the helpful curator of the museum Ziyong Wang (王自勇) called a conference. Ten well-known local inside painters attended the conference: Xisan Wang (王習三), Ziyong Wang (王自勇), Guoshun Fu (付國順), Guanyu Wang (王冠宇), Yunpu Chen (陳潤璞), Baichuan Wang (王百川), Jianguang Lu (盧建廣), Yiming Jin

(金一鳴), Chunguang Wang (王春光) and Dayong Wang (王大勇) (Fig. 187) and video 3.1.



Fig. 187: The conference about developing the traditional inside painting of snuff bottles, March 21, 2014.

The topic of the conference was „*How to develop traditional inside painting*“. The inside painters’ opinions are reported below:

Xisan wang: The snuff bottle is a kind of traditional art form, and the inside painting of Chinese snuff bottles is an accomplished art style. We can only inherit and develop the painting techniques and the form of „snuff bottle“ shouldn’t be changed.

Ziyong Wang: We can make different shapes of snuff bottles for inside painting. The traditional inside painting should be developed.

Guoshun Fun: The painting contents in the past 200 years were kept very well, the later generations should be insisting this kind of art.

Chunguang Wang: To develop the traditional inside painting is a good suggestion, but I think the painting skills still have potential to be pushed ahead, as to change the art form, how to change? I don’t know and I also don’t advocate to do so.

Jianguang Lu: The inside painting has been developed so much in the past 200 years, but still can be recreated according to the original style, maybe someone can find a good way to do it.

Yiming Jin: To develop the traditional inside painting is easy to say but not easy to find way. If changing too much it will not be „snuff bottle“ any more.

Dayong wang: „Snuff bottle“ is a good form, we display our painting skills in it through the little hole, other people cannot do it like us to, we should keep the advantages of it and if it is changed to much, it will not look like „snuff bottle“ any more, the collectors will not buy them, how to earn money?

Guanyu Wang: To keep the skills that ancestors have given to us, we have relied it to raise our families, thank them, we should inherit the traditional styles.

Through the discussions above, it can be seen that it would not be easy to develop a promising method to move forward traditional inside painting by the traditional inside painters themselves.

3.2 In Boshan (博山)

Boshan is located in the Shandong province of China and is famous for the glass work made by blowing, flame working, casting, and traditional inside painting. The biggest exhibition of inside painting of Chinese snuff bottles was held in Boshan Renli Glass Museum on April 8-10, 2014. There were twenty-eight masters of inside paintings present at this exhibition (Figs.188, 189 & 190).

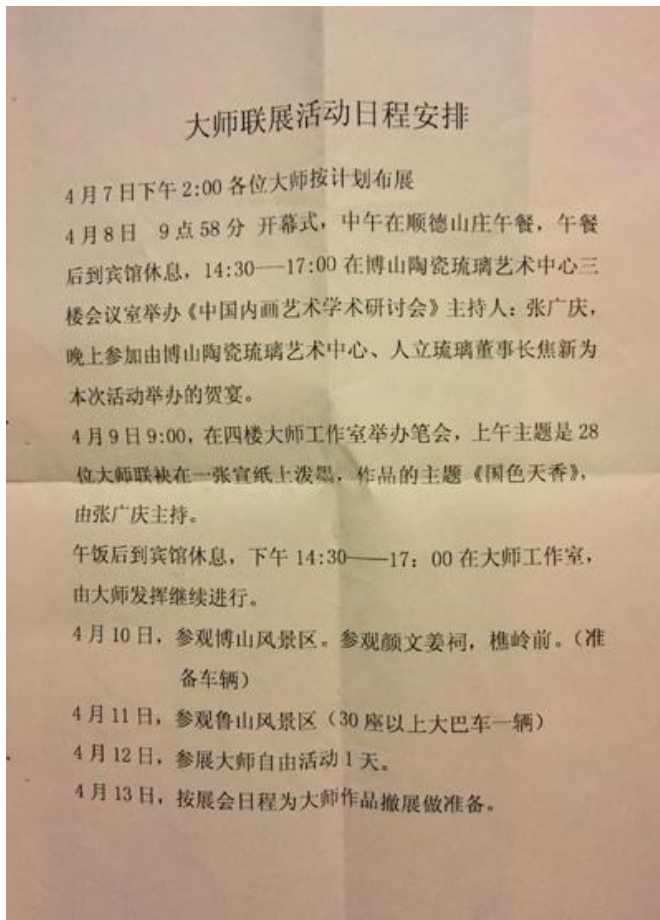


Fig.188: The arrangements of the activities of masters group exhibition, 2014

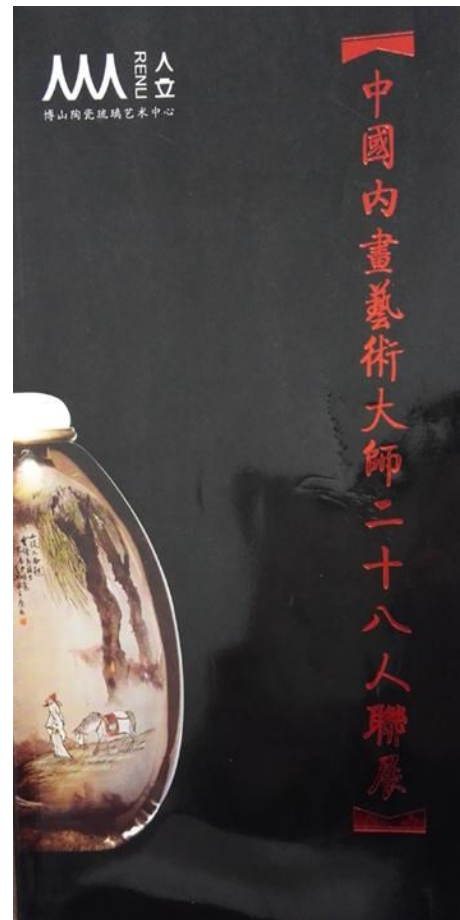


Fig.189 The booklet of the group inside painting exhibition, 2014.



Fig.190: The opening ceremony of the inside painting group exhibition, 2014.

The details can be checked online:

<http://www.chinasnuffbottle.org.cn/newsDetail.asp?id=78>

The topic of the conference was „*the past and future of traditional inside painting*“. Representatives of the four main Chinese inside painting schools were the keynote speakers at the conference, the precise details were as follows:

Guangqing Zhang (張廣慶) (Director): The inside painting has well developed in the past 200 years. It has won many honors in the international society. We should inherit the advantages of the art and develop it. We should conduct vigorous propaganda for it and the young inside painters should have the responsibility to develop it.

The other three representatives of Xisan Wang (王習三), Shouben Liu (劉守本) and Yining Lai (賴一寧) all expressed similar opinions but haven't given a specific developing method. The development of traditional inside painting was personally discussed with the masters (Figs.191 & 192), and they all thought the development of inside painting referred to the techniques developing.

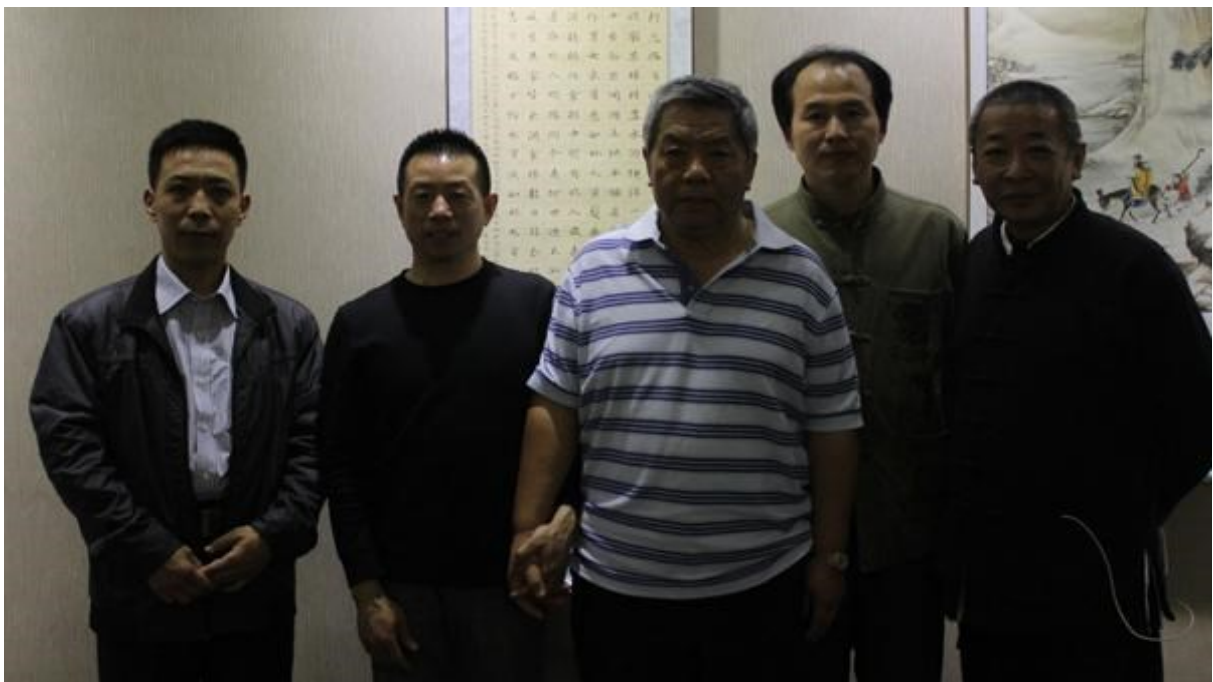


Fig. 191: After talking about the developing of inside painting, this author with the masters of Beijing School in the exhibition, 2014.



Fig.192: At an interview with some of the Ji School masters at the inside painting conference, 2014.

3.3 In Durham

The Glass Science in Art and Conservation Conference was held on September 10th-12th, 2014, at the University of Durham in the UK. This author gave a presentation about the current research into „new form“ inside painting, and traditional inside painting of Chinese snuff bottles was displayed. The idea of combining the outside art form with the inside painting content and how to develop the traditional Chinese inside paintings was expressed (Figs. 193 &.194).

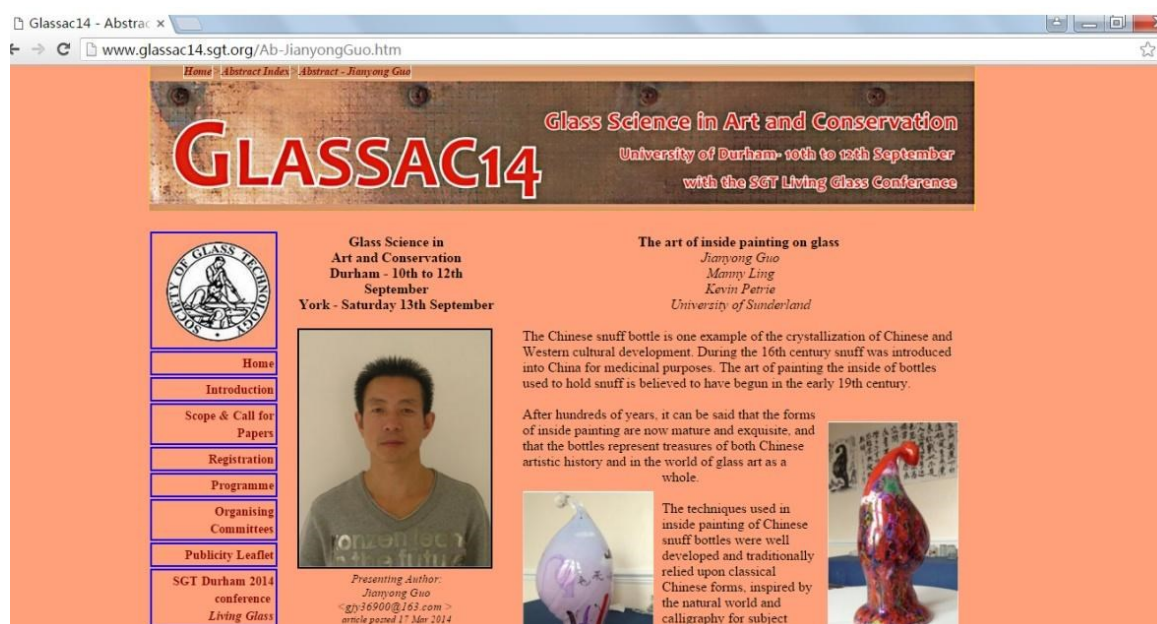


Fig. 193: The GlassAC14 in University of Durham, my personal information, 2014.



Fig. 194: The researcher was giving a presentation about the „new form“ inside painting at the GlassAC14 conference, 2014.

Appendix 4: The main schools of Chinese snuff bottle inside painting

There are four main schools (Liu, 2011).

4.1 Beijing School (京派)

Beijing was the capital of the Qing dynasty (1636-1912), and is also the birthplace of inside painting of snuff bottles: all contemporary inside painting of snuff bottles originated in the Beijing school.

Beijing was the center of culture and economy during this time, so every profession was prosperous. In art, all the talented craftsmen gathered there. With the developing economy and culture, the art of snuff bottles inside painting progressed rapidly. The

inside painters drew upon the profound culture of the capital city. Gradually, it formed an art style combining poetry, calligraphy and painting together. During the Qing Dynasty, the Beijing style of inside painting was represented by Leyuan Zhou (周樂元), Shaoxuan Ma (馬少宣), Zhongsan Ye (葉仲三) (See 2.1.1). In modern times, Shouben Liu (劉守本) is the representative of inside painting in the Beijing school (Bai & Yu, 2009).

4.2 Lu School (魯派)

The painters of Lu school gathered in Shandong, in Boshan region of China. The Lu school was established by Rongjiu Bi (畢榮九) (1874-1925) who came to Boshan from the Beijing school in 1890.

The most distinctive character of Lu was the ability to take advantage of the glaze of porcelain painting on the inside wall of a snuff bottle, then, after firing, paint inside with enamel paint. After this, even if the inside is made wet, the painting cannot be damaged.

The current representative of Lu is Guangqing Zhang (張廣慶) (b.1948). Current inside painters of the Lu school have chosen Chinese pigment to paint with (Liu, 2011).

4.3 Ji School (冀派)

Based in Hengshui of Hebei province this school has a short history. However, Ji has the greatest number of inside painters in any of the four main schools.

The most important feature of Ji is that it has related industry factories for making snuff bottles and snuff bottle hollowing factories, together with inside painting learning schools and museums.

Ji style is famous for portrait painting. Ji school's inside painters chose Chinese painting pigment blended with oil paint to integrate and imitate many kinds of pictures. Xishan Wang (王習三) (b. 1938) is the founder and representative painter of the Ji school now. He created the curved painting brush which almost all the Chinese traditional inside painters like to use today (Bai & Yu, 2009).

4.4 Yue School (粤派)

Yue school is well known for its beautiful color and decorating style. It is also a young school, the founder was Songling Wu (吳松齡) (1920-1998). Yue is located in Shantou in the Guangdong province of China. Its current representative is Songling Wu (Liu, 2011).

Appendix 5 Survey of books about painted snuff bottles in six large-scale bookshops in China

Table 20: Survey of books about painted snuff bottles in six large-scale bookshops in China

Bookshops	Address	Level	Inside painting or snuff bottle books	Kinds
Jinan Xinhua bookshop	Quancheng road NO.185, Lixia district, Jinan	Provincial	Li, X. W. (2010). <i>The Inside Painting Art of Zhang Guangqing</i> . Ji Nan: Shan Dong Art Publishing house	2
			Dai, H. L. (2009). <i>Chinese Modern Natural Crystal Art Works Collection</i> . Ji Nan: Shan Dong Art Publishing House.	
Beijing Sanlian bookshop	East street NO.22 Art gallery road, Beijing	National	Bai, G. S. & Yu, F. M. (2009). <i>The Folk Inside Painting Techniques of China</i> . Beijing: China Labor Social Security Press.	6
			Deng, Y. M. (2005). <i>Snuff Bottles</i> . Bei Jing: New Star Publishing House.	
			Li, Q. (1994). <i>Inside Painting Master Wang Xisan</i> . Beijing: Today's China Publishing House.	

		Ma, Z. S. (1998). <i>Ma Shao Xuan and Art of Inside Painting</i> . Beijing: Cultural Relic Publishing House.	
		Zhu, P. and Xia, G. (1988). <i>The Historical Narrative of Snuff Bottles</i> . Beijing: Forbidden City Press (Chinese version).	

			Zheng, S. (1979). <i>Glass Bottles of Coloured Drawing</i> . Beijing: The World Cultural Relic Press	
Hebei province Xinhua bookshop	Qingyuan street NO.131, Changan district, Shijiazhuang.	Provincial	Liu, T. H. (2011) (ed.). <i>The Chinese Snuff Bottles</i> . Shi Jia Zhuang: He Bei Art Publishing House. Liu, Y. Z. (2000). <i>Inside Painting of Yi Zi</i> . He Bei: He Bei Arts Publishing House. Wang, Z. Y. (2012). <i>He Bei Inside Painting Pictures Dictionary</i> . Shi Jia Zhuang: He Bei Art Publishing House. Wang, Z.Y.(2008). <i>Ji School Inside Painting Masters Appreciation and Analysis</i> . He Bei: He Bei Education Publishing House. Wang, X. S. (2005). <i>Chinese Inside Painting Pictures Dictionary</i> . Shi JiaZhuang: He Bei Art Publishing House. Deng, Y. M. (2005). <i>Snuff Bottles</i> . Beijing: New Star Publishing House.	6

Shanghai Xinhua bookshop	Zhongshan south second road NO.800, Shanghai	Provincial	Wang, J. H. (1996). <i>Snuff Bottle Connection and Appreciation</i> . Shanghai: Shanghai Bookstore Publishing House.	4
			Dong, C. L. (2007). <i>The Chinese Snuff Bottle Companion A Connoisseur's Guide</i> . Shanghai: Shanghai Science and Technology Publishing House.	
			Li, J. (2002). <i>Snuff Bottles</i> . Shanghai: Shanghai Science and Technology Press	
			Deng, Y. M. (2005). <i>Snuff Bottles</i> . Beijing: New Star Publishing House.	
Henan Xinhua bookshop	Renmin road 21, Zhengzhou	Provincial	Deng, Y. M. (2005). <i>Snuff Bottles</i> . Beijing: New Star Publishing House.	1
Nanjing Xinhua bookshop	Zhongshan East road, Qinhua district, Nanjing	Provincial	Wang, Z. Y. (ed.) (2014). <i>Chinese Crafts Master Wang Xisan-Inside Painting of Snuff Bottle</i> . Nan Jing: Jiang Su Art Publishing House.	1

This informal survey revealed that the publication of inside painting books is perhaps limited. Many young people have not even heard of the „snuff bottle“ and „inside painting“. The limited number of people who are aware of inside painting results in a proportionally limited number of people becoming involved in this form of art and therefore the number of new, innovative artists who can develop the form is also limited.

Appendix 6: Questionnaires given to the four main glass studios in Chinese Universities

6.1 The question details in the questionnaires

Question : The inside painting glass sculptures which inspired from inside painting of Chinese snuff bottles and west contemporary glass painting, printing to Chinese contemporary academic glass teaching.

1 Do you know about west contemporary glass painting?

A Quite know () B Know () C Simply know () D Don't know () 2

Have you applied inside painting method in your glass works?

A Yes () B No () C Want to try () D Don't want to try () 3 Do you

know inside painting of Chinese snuff bottles?

A Know about () B Don't know () C Hear about () D Don't know ()

4 Your comment to the inside painting of Chinese snuff bottles in Chinese arts:

A Tremendous influence () B A little influence () C No influence () D Don't know

()

5 How do you think about inside painting of Chinese snuff bottles?

A Fine art () B Folk crafts () C Don't know 6 Do you want

to try inside painting in your glass works?

A Want to try () B Don't want to try ()

7 Do you think the inside painting sculptures will have a good future?

A Yes () B No ()

8 Do you agree with the inside painting sculptures to apply into the Chinese contemporary academic glass teaching? A yes () B No ()

9. Do you agree with the outside art form and the inside content should integrate in a glass artwork?

A Yes () B No ()

10. Your comments to the attached three inside painting sculptures in this research :

11. You are

A Glass artist and teacher () B Glass artist () C Glass student () D

Others ()

University :

Signature (Not student) :

Student representative signature_____Class_____Class size

Others signatures in the class who agree with the representative

Others signatures who don't agree with the representative

_____ Date

The three attached inside painting sculptures were:



Waiting, blown glass, inside painting, H. 45cm, 2015 (Front).



Waiting, blown glass, inside painting, H. 45cm, 2015 (Back).



Girl Kiln-cast glass, hollowed inside, inside painting, H. 25cm, 2015.



Pregnant I Kiln-cast glass, hollowed inside, inside painting, H. 20cm, 2015.

6.2 The replies to the questionnaires (Glass teachers & artists)

问卷调查: 吸收了中西玻璃绘画技法及当代工作室玻璃技术的当代内画玻璃雕塑艺术与中国玻璃教学

1. 对西方当代玻璃绘画技术的了解
A 很了解 () B 了解 () C 简单了解 (✓) D 不了解 ()
2. 您在玻璃艺术创作中采用过玻璃绘画方法吗
A 用过 () B 没用过 (✓) C 想采用 () D 不想采用 ()
3. 您对中国传统鼻烟壶内画的了解
A 了解 () B 不了解 (✓) C 听说过 () D 没听说过 ()
4. 您对传统鼻烟壶内画在中国当代艺术中的影响评价
A 影响很大 () B 影响不大 (✓) C 没影响 () D 不清楚 ()
5. 您觉得鼻烟壶内画在中国当代艺术中属于
A 纯艺术 () B 民间工艺 (✓) C 不清楚 ()
6. 您对吸收了西方玻璃绘画技法及当代工作室玻璃技术与中国传统内画技法的当代内画玻璃雕塑艺术的想法
A 想尝试 (✓) B 不想尝试 ()
7. 您认为收了西方玻璃绘画技法及当代工作室玻璃技术与中国传统内画技法的当代内画玻璃雕塑艺术的想法
A 有发展前景 (✓) B 没发展前景 ()
8. 您对收了收了西方玻璃绘画技法及当代工作室玻璃技术与中国传统内画技法的当代内画玻璃雕塑艺术纳入中国玻璃教学中的看法
A 赞成 (✓) B 不赞成 ()
9. 您对本人玻璃雕塑主张雕塑的外在形体与内在绘画内容充分结合来表现个人想法及情感的意见
A 赞成 (✓) B 不赞成 ()
10. 您对下3页本人当代内画雕塑的看法及建议
内画是中国玻璃艺术创作的一种传统技术,有悠久的历史,作为当代艺术形态,内画玻璃取得了长足进步的发展,郭先生是国内少有的从事相关研究的专家,结合自身雕塑专业的优势特点,吸收中国传统绘画及工艺,创造了一种新的玻璃表现形式,具有广泛的研究价值。
11. 您是
A 玻璃艺术家兼玻璃教师 (✓) B 玻璃艺术家 () C 其他 ()

所在院校: 中国美术学院

签名: 

问卷调查:吸收了中西玻璃绘画技法及当代工作室玻璃技术的当代内画玻璃雕塑艺术与中国玻璃教学

1. 对西方当代玻璃绘画技术的了解
A 很了解 () B 了解 () C 简单了解 (√) D 不了解 ()
2. 您在玻璃艺术创作中采用过玻璃绘画方法吗
A 用过 () B 没用过 (√) C 想采用 (√) D 不想采用 ()
3. 您对中国传统鼻烟壶内画的了解
A 了解 () B 不了解 (√) C 听说过 () D 没听说过 ()
4. 您对传统鼻烟壶内画在中国当代艺术中的影响评价
A 影响很大 () B 影响不大 (√) C 没影响 () D 不清楚 ()
5. 您觉得鼻烟壶内画在中国当代艺术中属于
A 纯艺术 () B 民间工艺 (√) C 不清楚 ()
6. 您对吸收了西方玻璃绘画技法及当代工作室玻璃技术与中国传统内画技法的当代内画玻璃雕塑艺术的想法
A 想尝试 (√) B 不想尝试 ()
7. 您认为收了西方玻璃绘画技法及当代工作室玻璃技术与中国传统内画技法的当代内画玻璃雕塑艺术的想法
A 有发展前景 (√) B 没发展前景 ()
8. 您对收了收了西方玻璃绘画技法及当代工作室玻璃技术与中国传统内画技法的当代内画玻璃雕塑艺术纳入中国玻璃教学中的看法
A 赞成 (√) B 不赞成 ()
9. 您对本人玻璃雕塑主张雕塑的外在形体与内在绘画内容充分结合来表现个人想法及情感的意见
A 赞成 (√) B 不赞成 ()
10. 您对下3页本人当代内画雕塑的看法及建议
内画雕塑是将中国传统内画瓶器物传统工艺的一种活化, 是一种不完美的创作新境. 希望能看到创作出更精彩的内画雕塑作品
11. 您是
A 玻璃艺术家兼玻璃教师 (√) B 玻璃艺术家 () C 其他 ()

所在院校: 中国美术学院

签名: 许金龙

问卷调查:吸收了中西玻璃绘画技法及当代工作室玻璃技术的当代内画玻璃雕塑艺术与中国玻璃教学

1. 对西方当代玻璃绘画技术的了解

A 很了解 () B 了解 (✓) C 简单了解 () D 不了解 ()

2. 您在玻璃艺术创作中采用过玻璃内画方法吗

A 用过 () B 没用过 (✓) C 想采用 () D 不想采用 ()

3. 您对中国传统鼻烟壶内画的了解

A 了解 (✓) B 不了解 () C 听说过 () D 没听说过 ()

4. 您对传统鼻烟壶内画在中国当代艺术中的影响评价

A 影响很大 () B 影响不大 () C 没影响 (✓) D 不清楚 ()

5. 您觉得鼻烟壶内画在中国当代艺术中属于

A 纯艺术 () B 民间工艺 (✓) C 不清楚 ()

6. 您对吸收了西方玻璃绘画技法及当代工作室玻璃技术与中国传统内画技法的当代内画玻璃雕塑艺术的看法

A 想尝试 (✓) B 不想尝试 ()

7. 您认为收了西方玻璃绘画技法及当代工作室玻璃技术与中国传统内画技法的当代内画玻璃雕塑艺术的看法

A 有发展前景 (✓) B 没发展前景 ()

8. 您对吸收了西方玻璃绘画技法及当代工作室玻璃技术与中国传统内画技法的当代内画玻璃雕塑艺术纳入中国玻璃教学中的看法

A 赞成 (✓) B 不赞成 ()

9. 您对本人玻璃雕塑主张雕塑的外在形体与内在绘画内容充分结合起来表现个人想法及情感的意见

A 赞成 (✓) B 不赞成 ()

10. 您对下3页本人当代内画雕塑的看法及建议

算是一种新探索, 中国内画多是国画颜料, 西方玻璃画是烤过的, 中国烤的好像也有, 难、少。作为艺术创作形式, 值得鼓励。

11. 您是

A 玻璃艺术家兼玻璃教师 (✓) B 玻璃艺术家 () C 其他 ()

所在院校: 清华大学美术学院

签名: 关东海

问卷调查: 吸收了中西玻璃绘画技法及当代工作室玻璃技术的当代内画玻璃雕塑艺术与中国玻璃教学

1. 对西方当代玻璃绘画技术的了解
A 很了解 () B 了解 (✓) C 简单了解 () D 不了解 ()
2. 您在玻璃艺术创作中采用过玻璃绘画方法吗
A 用过 () B 没用过 () C 想采用 (✓) D 不想采用 ()
3. 您对中国传统鼻烟壶内画的了解
A 了解 (✓) B 不了解 () C 听说过 () D 没听说过 ()
4. 您对传统鼻烟壶内画在中国当代艺术中的影响评价
A 影响很大 () B 影响不大 (✓) C 没影响 () D 不清楚 ()
5. 您觉得鼻烟壶内画在中国当代艺术中属于
A 纯艺术 () B 民间工艺 (✓) C 不清楚 ()
6. 您对吸收了西方玻璃绘画技法及当代工作室玻璃技术与中国传统内画技法的当代内画玻璃雕塑艺术的想法
A 想尝试 (✓) B 不想尝试 ()
7. 您认为收了西方玻璃绘画技法及当代工作室玻璃技术与中国传统内画技法的当代内画玻璃雕塑艺术的想法
A 有发展前景 (✓) B 没发展前景 ()
8. 您对收了收了西方玻璃绘画技法及当代工作室玻璃技术与中国传统内画技法的当代内画玻璃雕塑艺术纳入中国玻璃教学中的看法
A 赞成 (✓) B 不赞成 ()
9. 您对本人玻璃雕塑主张雕塑的外在形体与内在绘画内容充分结合来表现个人想法及情感的意见
A 赞成 (✓) B 不赞成 ()
10. 您对下3页本人当代内画雕塑的看法及建议
由原玻璃与内画雕塑的结合是大胆探索的尝试, 对作品而言, 作者将内画与雕塑的结合, 是成功的结合在一起, 创作了独特的艺术表现形式。
11. 您是
A 玻璃艺术家兼玻璃教师 (✓) B 玻璃艺术家 () C 其他 ()

所在院校: 山东工艺美术学院

签名: 郑江涛

问卷调查：吸收了中西玻璃绘画技法及当代工作室玻璃技术的当代内画玻璃雕塑艺术与中国玻璃教学

1. 对西方当代玻璃绘画技术的了解
A 很了解 () B 了解 () C 简单了解 (*) D 不了解 ()
2. 您在玻璃艺术创作中采用过玻璃绘画方法吗
A 用过 () B 没用过 (*) C 想采用 () D 不想采用 ()
3. 您对中国传统鼻烟壶内画的了解
A 了解 (*) B 不了解 () C 听说过 () D 没听说过 ()
4. 您对传统鼻烟壶内画在中国当代艺术中的影响评价
A 影响很大 () B 影响不大 () C 没影响 (*) D 不清楚 ()
5. 您觉得鼻烟壶内画在中国当代艺术中属于
A 纯艺术 () B 民间工艺 (*) C 不清楚 ()
6. 您对吸收了西方玻璃绘画技法及当代工作室玻璃技术与中国传统内画技法的当代内画玻璃雕塑艺术的想法
A 想尝试 (*) B 不想尝试 ()
7. 您认为收了西方玻璃绘画技法及当代工作室玻璃技术与中国传统内画技法的当代内画玻璃雕塑艺术的想法
A 有发展前景 (*) B 没发展前景 ()
8. 您对吸收了西方玻璃绘画技法及当代工作室玻璃技术与中国传统内画技法的当代内画玻璃雕塑艺术纳入中国玻璃教学中的看法
A 赞成 (*) B 不赞成 ()
9. 您对本人玻璃雕塑主张雕塑的外在形体与内在绘画内容充分结合来表现个人想法及情感的意见
A 赞成 (*) B 不赞成 ()
10. 您对下3页本人当代内画雕塑的看法及建议
作品具有创新性，是对中国传统文化的继承和发展，值得推广。
11. 您是
A 玻璃艺术家兼玻璃教师 (*) B 玻璃艺术家 () C 其他 ()

所在院校：上海大学美术学院签名：罗小成

日期：2016-1-20

问卷调查: 吸收了中西玻璃绘画技法及当代工作室玻璃技术的当代内画玻璃雕塑艺术与中国玻璃教学

1. 对西方当代玻璃绘画技术的了解
A 很了解 (✓) B 了解 () C 简单了解 () D 不了解 ()
2. 您在玻璃艺术创作中采用过玻璃内画方法吗
A 用过 () B 没用过 (✓) C 想采用 () D 不想采用 ()
3. 您对中国传统鼻烟壶内画的了解
A 了解 (✓) B 不了解 () C 听说过 () D 没听说过 ()
4. 您对传统鼻烟壶内画在中国当代艺术中的影响评价
A 影响很大 () B 影响不大 (✓) C 没影响 () D 不清楚 ()
5. 您觉得鼻烟壶内画在中国当代艺术中属于
A 纯艺术 () B 民间工艺 (✓) C 不清楚 ()
6. 您对吸收了西方玻璃绘画技法及当代工作室玻璃技术与中国传统内画技法的当代内画玻璃雕塑艺术的想法
A 想尝试 (✓) B 不想尝试 ()
7. 您认为收了西方玻璃绘画技法及当代工作室玻璃技术与中国传统内画技法的当代内画玻璃雕塑艺术的想法
A 有发展前景 (✓) B 没发展前景 ()
8. 您对收了收了西方玻璃绘画技法及当代工作室玻璃技术与中国传统内画技法的当代内画玻璃雕塑艺术纳入中国玻璃教学中的看法
A 赞成 (✓) B 不赞成 ()
9. 您对本人玻璃雕塑主张雕塑的外在形体与内在绘画内容充分结合起来表现个人想法及情感的意见
A 赞成 (✓) B 不赞成 ()
10. 您对下3页本人当代内画雕塑的看法及建议
首先, 非常欣赏您的作品, 我认为是一种非常新颖的形态.
其次, 您的作品在视觉上很新颖, 但不中如日本一些, 既解体现
而传统内画, 又融入了东方文化意蕴, 是对这一领域的贡献很大.
最后, 我认为应继续这种由内而外的创作方法, 及根本列入教学(学校)
领域会有极好的未来.
11. 您是
A 玻璃艺术家兼玻璃教师 (✓) B 玻璃艺术家 () C 其他 ()

所在院校: 烟台科技学院

签名: 陈金 日期: 27th. January 2016

6.3 The replies to the questionnaires (Glass students)

(此卷针对玻璃专业学生)

问卷调查: 吸收了中西玻璃绘画技法及当代工作室玻璃技术的当代内画玻璃雕塑艺术与中国玻璃教学

1. 对西方当代玻璃绘画技术的了解
A 很了解 () B 了解 () C 简单了解 (√) D 不了解 ()
2. 您在玻璃艺术创作中采用过玻璃绘画方法吗
A 用过 () B 没用过 (√) C 想采用 (√) D 不想采用 ()
3. 您对中国传统鼻烟壶内画的了解
A 了解 () B 不了解 (√) C 听说过 (√) D 没听说过 ()
4. 您对传统鼻烟壶内画在中国当代艺术中的影响评价
A 影响很大 () B 影响不大 (√) C 没影响 () D 不清楚 ()
5. 您觉得鼻烟壶内画在中国当代艺术中属于
A 纯艺术 () B 民间工艺 (√) C 不清楚 ()
6. 您对吸收了西方玻璃绘画技法及当代工作室玻璃技术与中国传统内画技法的当代内画玻璃雕塑艺术的想法
A 想尝试 (√) B 不想尝试 ()
7. 您认为收了西方玻璃绘画技法及当代工作室玻璃技术与中国传统内画技法的当代内画玻璃雕塑艺术的想法
A 有发展前景 (√) B 没发展前景 ()
8. 您对收了收了西方玻璃绘画技法及当代工作室玻璃技术与中国传统内画技法的当代内画玻璃雕塑艺术纳入中国玻璃教学中的看法
A 赞成 (√) B 不赞成 ()
9. 您对本人玻璃雕塑主张雕塑的外在形体与内在绘画内容充分结合来表现个人想法及情感的意见
A 赞成 (√) B 不赞成 ()
10. 您对下页本人当代内画雕塑的看法及建议

内画是中国古代传统工艺, 而创作却将传统
绘画化, 当代化运用到当代玻璃雕塑创作
造型中, 是一种传统工艺当代化的表现, 是一
种不错的创作思路。

您所在院校: 中国美术学院 所在班级: 2013级 班级人数: 15个

学生代表签名: 王树林

同意学生代表答卷意见的本班级其他人数: 15

同意学生代表答卷意见的本班级其他人数签名: (人数: 15) 谢建林 熊皓
钱文忠 王立峰 彭元 林娜 陈学奇 李嘉欣
孙冲芳 廖子和 张浩 陈浩 王佳 张伟 汪树成

不同意学生代表答卷意见的本班级其他人数签名: (人数: 0)

(此卷针对玻璃专业学生) 问卷调查:吸收了中西玻璃绘画技法及当代工作室玻璃技术的当代内画玻璃雕塑

艺术与中国玻璃教学

1. 对西方当代玻璃绘画技术的了解
A 很了解() B 了解() C 简单了解(✓) D 不了解()
2. 您在玻璃艺术创作中采用过玻璃内画方法吗
A 用过() B 没用过(✓) C 想采用() D 不想采用()
3. 您对中国传统鼻烟壶内画的了解
A 了解() B 不了解(✓) C 听说过() D 没听说过()
4. 您对传统鼻烟壶内画在中国当代艺术中的影响评价
A 影响很大() B 影响不大(✓) C 没影响() D 不清楚()
5. 您觉得鼻烟壶内画在中国当代艺术中属于
A 纯艺术() B 民间工艺(✓) C 不清楚()
6. 您对吸收了西方玻璃绘画技法及当代工作室玻璃技术与中国传统内画技法的当代内画玻璃雕塑艺术的想法
A 想尝试(✓) B 不想尝试()
7. 您认为收了西方玻璃绘画技法及当代工作室玻璃技术与中国传统内画技法的当代内画玻璃雕塑艺术的想法
A 有发展前景(✓) B 没发展前景()
8. 您对吸收了西方玻璃绘画技法及当代工作室玻璃技术与中国传统内画技法的当代内画玻璃雕塑艺术纳入中国玻璃教学中的看法
A 赞成(✓) B 不赞成()
9. 您对本人玻璃雕塑主张雕塑的外在形体与内在绘画内容充分结合起来表现个人想法及情感的意见
A 赞成(✓) B 不赞成()
10. 您对下页本人当代内画雕塑的看法及建议

- 1、《等待》：我很喜欢吹制的流畅形态，尤其是这个作品的外形与内画结合的非常自然，内画中能够看出故事来，是会让人驻足的那种，很有趣。
- 2、《和谐青春》：像个胖妇人的形象很可爱，内画形象和玻璃雕塑的统一很舒服，内画的色彩非常喜欢！！！！
- 3、《人与自然》：蜷缩的人体拥抱着山水，水墨的形式很喜欢，很容易引起共鸣啊~！

您所在院校:清华大学美术学院 所在班级:美 414 班级人数: 10

学生代表签名: 黄继娴

同意学生代表答卷意见的本班级其他人数: 9

同意学生代表答卷意见的本班级其他人数签名:(人数: 9)

方兴未艾, 李成宇 韩舒淇 江颖 李相改 郑多松

袁方洲 王韵晓 赵婉容

日期: 2016. 1. 19

不同意学生代表答卷意见的本班级其他人数签名:(人数:)

(此卷针对玻璃专业学生)

问卷调查: 吸收了中西玻璃绘画技法及当代工作室玻璃技术的当代内画玻璃雕塑艺术与中国玻璃教学

1. 对西方当代玻璃绘画技术的了解
A 很了解 () B 了解 () C 简单了解 (✓) D 不了解 ()
2. 您在玻璃艺术创作中采用过玻璃绘画方法吗
A 用过 () B 没用过 (✓) C 想采用 () D 不想采用 ()
3. 您对中国传统鼻烟壶内画的了解
A 了解 () B 不了解 () C 听说过 (✓) D 没听说过 ()
4. 您对传统鼻烟壶内画在中国当代艺术中的影响评价
A 影响很大 () B 影响不大 () C 没影响 () D 不清楚 (✓)
5. 您觉得鼻烟壶内画在中国当代艺术中属于
A 纯艺术 () B 民间工艺 (✓) C 不清楚 ()
6. 您对吸收了西方玻璃绘画技法及当代工作室玻璃技术与中国传统内画技法的当代内画玻璃雕塑艺术的想法
A 想尝试 (✓) B 不想尝试 ()
7. 您认为收了西方玻璃绘画技法及当代工作室玻璃技术与中国传统内画技法的当代内画玻璃雕塑艺术的想法
A 有发展前景 (✓) B 没发展前景 ()
8. 您对收了收了西方玻璃绘画技法及当代工作室玻璃技术与中国传统内画技法的当代内画玻璃雕塑艺术纳入中国玻璃教学中的看法
A 赞成 (✓) B 不赞成 ()
9. 您对本人玻璃雕塑主张雕塑的外在形体与内在绘画内容充分结合来表现个人想法及情感的意见
A 赞成 (✓) B 不赞成 ()
10. 您对下页本人当代内画雕塑的看法及建议
我对内画雕塑并不是太了解, 只是针对目前作品的形式和呈现给我的感受做一个简单的评
价, 作品的创作形式和表现形式很新颖, 可以作为今后玻璃艺术创作的一类表现形式。

您所在院校: 上海大学美术学院 所在班级: 玻璃工作室 班级人数: 5

学生代表签名: 吴仕奇 日期: 2016年1月23

同意学生代表答卷意见的本班级其他人数: 4

同意学生代表答卷意见的本班级其他人数签名: (人数: 4) 吴昊 孙志浩 郭磊 赵杨晨

不同意学生代表答卷意见的本班级其他人数签名: (人数:)

(此卷针对玻璃专业学生)

问卷调查: 吸收了中西玻璃绘画技法及当代工作室玻璃技术的当代内画玻璃雕塑艺术与中国玻璃教学

1. 对西方当代玻璃绘画技术的了解
A 很了解 () B 了解 () C 简单了解 (✓) D 不了解 ()
2. 您在玻璃艺术创作中采用过玻璃绘画方法吗
A 用过 () B 没用过 () C 想采用 (✓) D 不想采用 ()
3. 您对中国传统鼻烟壶内画的了解
A 了解 () B 不了解 () C 听说过 (✓) D 没听说过 ()
4. 您对传统鼻烟壶内画在中国当代艺术中的影响评价
A 影响很大 () B 影响不大 (✓) C 没影响 () D 不清楚 ()
5. 您觉得鼻烟壶内画在中国当代艺术中属于
A 纯艺术 () B 民间工艺 (✓) C 不清楚 ()
6. 您对吸收了西方玻璃绘画技法及当代工作室玻璃技术与中国传统内画技法的当代内画玻璃雕塑艺术的想法
A 想尝试 (✓) B 不想尝试 ()
7. 您认为收了西方玻璃绘画技法及当代工作室玻璃技术与中国传统内画技法的当代内画玻璃雕塑艺术的想法
A 有发展前景 (✓) B 没发展前景 ()
8. 您对收了收了西方玻璃绘画技法及当代工作室玻璃技术与中国传统内画技法的当代内画玻璃雕塑艺术纳入中国玻璃教学中的看法
A 赞成 (✓) B 不赞成 ()
9. 您对本人玻璃雕塑主张雕塑的外在形体与内在绘画内容充分结合来表现个人想法及情感的意见
A 赞成 (✓) B 不赞成 ()
10. 您对下页本人当代内画雕塑的看法及建议

内画与雕塑的结合是一种新的艺术表现的方式, 艺术家对该领域的探索对于内画艺术而言是有益的。

您所在院校: 山东工艺美术学院 所在班级: 2014级3班 班级人数: 21人

学生代表签名: 董宇

同意学生代表答卷意见的本班级其他人数: 21

同意学生代表答卷意见的本班级其他人数签名: (人数: 21) 丁文静 李松林

王明阳 西悦 雅宏 徐欢 宋雪 张婧 王林 曹恩供 胡颖
蒋国辉 李东 吕强 吕博 戴元兴 余潘 王进 陈元博
董玥 王璞 柴常川

不同意学生代表答卷意见的本班级其他人数签名: (人数:)

6.4 The curriculums of the four main glass studios in China

6.4.1 China Academy of Fine Arts (Hangzhou)

手工艺术学院(院本部)2015-2016学年第一学期本科专业教学进程表																							
系部(盖章):		手工艺术学院		系主任签字:																			
月份		九月		十月		十一月		十二月		一月		二月		三月		四月		五月		六月		七月	
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手工艺术学院2015-2016学年第二学期本科专业专业教学进程表(工艺美术系)

手工艺学院2015-2016学年第二学期本科专业教学进程表 (工艺美术系)											
学号:		姓名:		性别:		出生日期:		入学日期:		毕业日期:	
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995		996		997		998		999		1000	
1002		1003		1004		1005		1006		1007	
1009		1010		1011		1012		1013		1014	
1016		1017		1018		1019		1020		1021	
1023		1024		1025		1026		1027		1028	
1030		1031		1032		1033		1034		1035	
1037		1038		1039		1040		1041		1042	
1044		1045		1046		1047		1048		1049	
1051		1052		1053		1054		1055		1056	
1058		1059		1060		1061		1062		1063	
1065		1066		1067		1068		1069		1070	
1072		1073		1074		1075		1076		1077	
1079		1080		1081		1082		1083		1084	
1086		1087		1088		1089		1090		1091	
1093		1094		1095		1096		1097		1098	
1099		1100		1101		1102		1103		1104	
1106		1107		1108		1109		1110		1111	
1113		1114		1115		1116		1117		1118	
1120		1121		1122		1123		1124		1125	
1127		1128		1129		1130		1131		1132	
1134		1135		1136		1137		1138		1139	
1141		1142		1143		1144		1145		1146	
1148		1149		1150		1151		1152		1153	
1155		1156		1157		1158		1159		1160	
1162		1163		1164		1165		1166		1167	
1169		1170		1171		1172		1173		1174	
1176		1177		1178		1179		1180		1181	
1183		1184		1185		1186		1187		1188	
1190		1191		1192		1193		1194		1195	
1197		1198		1199		1200		1201		1202	
1204		1205		1206		1207		1208		1209	
1211		1212									

6.4.2 Tsinghua University Academy of Art & Design (Beijing)

Donghai Guan, who is the director of glass studio of Tsinghua University, was interviewed on January 21, 2016. Guan showed the courses in the glass studio: (Fig.195).



设计学类（工艺美术） 45学分		
玻璃艺术		
	玻璃工艺基础	1学分
40809462	中国画	3学分
30803533	装饰基础	3学分
	雕塑人体（1）	3学分
40809351	玻璃艺术概论	1学分
	玻璃壁画设计 (311 0)	2学分
30800463	浮雕	3学分
40808873	窑制玻璃（1）	3学分
	雕塑人体（2）	3学分
40808913	吹制玻璃（1）	3学分
	装饰玻璃（1）	3学分
	吹制玻璃（2）	3学分
	窑制玻璃（2）	3学分
	装饰玻璃（2）	3学分
	吹制玻璃（3）	3学分
	玻璃粘贴工艺	3学分
	灯工工艺	3学分

Fig. 195: The glass curriculums (marked in red brackets) of glass students in Tsinghua University, 2015-2016.

6.4.3 Shanghai University Academy of Fine Arts (Shanghai)

Xiaoshu Luo, who is the deputy director of glass studio of Shanghai University, was interviewed on January 29 (Friday), 2016. Luo said the glass studio only recruited MA students, not BA students. Xiaowei Zhuang, the director of the studio, only arranged glass casting courses in this glass studio (Fig.196):

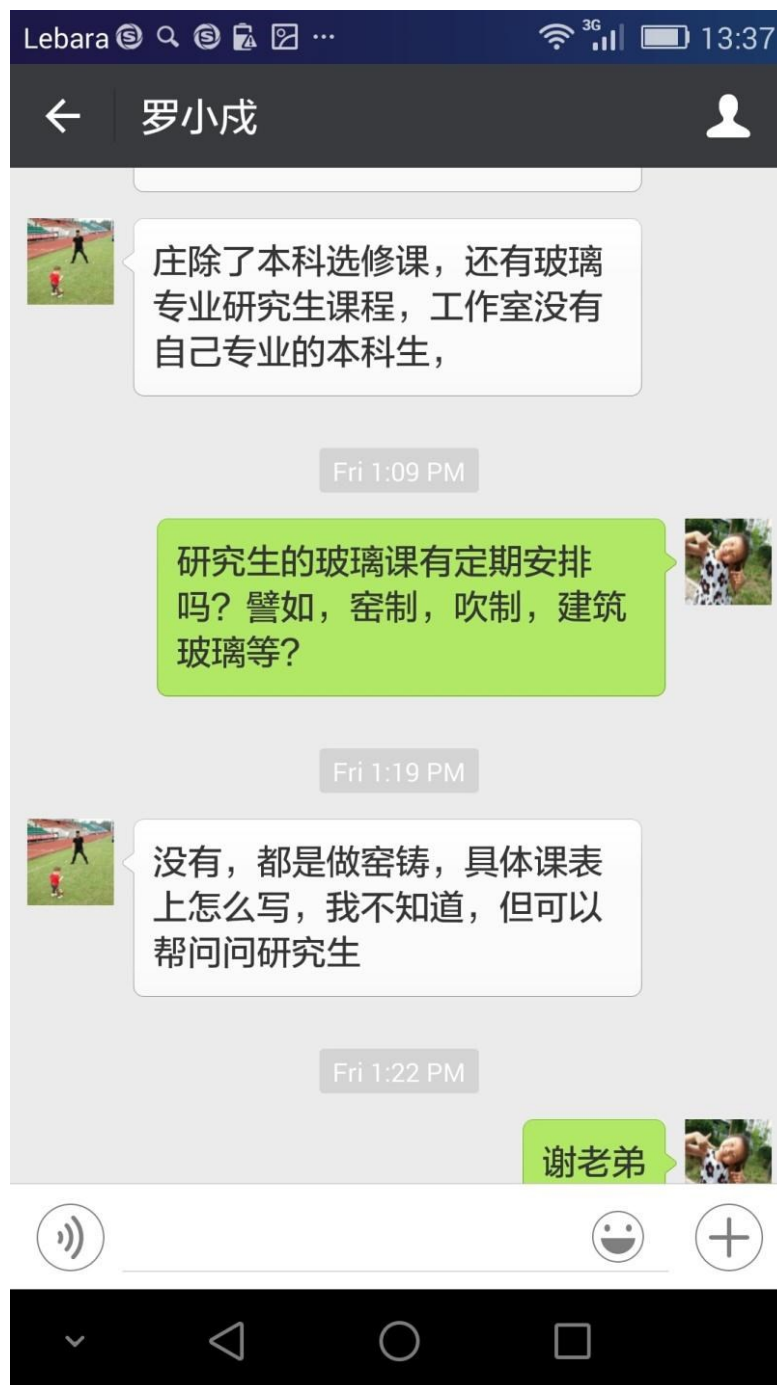


Fig. 196: The interview about the glass curriculum in Shanghai University glass studio, 2016.

6.4.4 Shandong University of Art & Design (Jinan)

制表时间: 2015年4月13日

现代手工艺术学院 2015-2016 学年第一学期专业课总表 (2014 级)

周次	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
课程	素描 9.7-9.13	素描 9.14-9.20	素描 9.21-9.27	素描 9.28-10.4	素描 10.5-10.11	素描 10.12-10.18	素描 10.19-10.25	素描 10.26-11.1	素描 11.2-11.8	素描 11.9-11.15	素描 11.16-11.22	素描 11.23-11.29	素描 12.0-12.6	素描 12.7-12.13	素描 12.14-12.20	素描 12.21-12.27	素描 1.3-1.10	素描 1.11-1.17	素描 1.18-1.24	
教师	白薇 【宋双村】	白薇 【宋双村】	白薇 【宋双村】	白薇 【宋双村】	白薇 【宋双村】	白薇 【宋双村】	白薇 【宋双村】	白薇 【宋双村】	白薇 【宋双村】	白薇 【宋双村】	白薇 【宋双村】	白薇 【宋双村】	白薇 【宋双村】	白薇 【宋双村】	白薇 【宋双村】	白薇 【宋双村】	白薇 【宋双村】	白薇 【宋双村】	白薇 【宋双村】	白薇 【宋双村】
学分	3学分 【宋双村】	3学分 【宋双村】	3学分 【宋双村】	3学分 【宋双村】	3学分 【宋双村】	3学分 【宋双村】	3学分 【宋双村】	3学分 【宋双村】	3学分 【宋双村】	3学分 【宋双村】	3学分 【宋双村】	3学分 【宋双村】	3学分 【宋双村】	3学分 【宋双村】	3学分 【宋双村】	3学分 【宋双村】	3学分 【宋双村】	3学分 【宋双村】	3学分 【宋双村】	3学分 【宋双村】
备注	14针维多利 【424】【23】	14针维多利 【424】【23】	14针维多利 【424】【23】	14针维多利 【424】【23】	14针维多利 【424】【23】	14针维多利 【424】【23】	14针维多利 【424】【23】	14针维多利 【424】【23】	14针维多利 【424】【23】	14针维多利 【424】【23】	14针维多利 【424】【23】	14针维多利 【424】【23】	14针维多利 【424】【23】	14针维多利 【424】【23】	14针维多利 【424】【23】	14针维多利 【424】【23】	14针维多利 【424】【23】	14针维多利 【424】【23】	14针维多利 【424】【23】	14针维多利 【424】【23】

14针维多利 【424】【23】	素描 3学分 【宋双村】	素描 3学分 【宋双村】	素描 3学分 【宋双村】	素描 3学分 【宋双村】	素描 3学分 【宋双村】	素描 3学分 【宋双村】	素描 3学分 【宋双村】	素描 3学分 【宋双村】	素描 3学分 【宋双村】	素描 3学分 【宋双村】	素描 3学分 【宋双村】	素描 3学分 【宋双村】	素描 3学分 【宋双村】	素描 3学分 【宋双村】	素描 3学分 【宋双村】	素描 3学分 【宋双村】	素描 3学分 【宋双村】	素描 3学分 【宋双村】	素描 3学分 【宋双村】	素描 3学分 【宋双村】
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The magnified details in red brackets are glass courses.

制发时间：2014年11月17日

周次	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.
14纤维染色班	3.7-	3.14-	3.21-	3.28-	4.4-	4.11-	4.18-	4.25-	5.2-	5.9-	5.16-	5.23-	5.30-	6.6-	6.13-	6.20-	6.27-	7.4-	7.11-
14纤维染色班	5.13-	5.20-	5.27-	5.34-	5.41-	5.48-	5.55-	6.1-	6.8-	6.15-	6.22-	6.29-	6.36-	6.43-	6.50-	6.57-	7.4-	7.10.	7.17.
14纤维染色班	7.18-	7.25-	7.32-	7.39-	7.46-	7.53-	8.1-	8.8-	8.15-	8.22-	8.29-	8.36-	8.43-	8.50-	8.57-	9.4-	9.11-	9.18-	9.25-
14纤维染色班	9.25-	9.32-	9.39-	9.46-	9.53-	10.1-	10.8-	10.15-	10.22-	10.29-	10.36-	10.43-	10.50-	10.57-	11.4-	11.11-	11.18-	11.25-	11.32-
14纤维染色班	11.32-	11.39-	11.46-	11.53-	12.1-	12.8-	12.15-	12.22-	12.29-	12.36-	12.43-	12.50-	12.57-	13.4-	13.11-	13.18-	13.25-	13.32-	13.39-
14纤维染色班	13.39-	13.46-	13.53-	14.1-	14.8-	14.15-	14.22-	14.29-	14.36-	14.43-	14.50-	14.57-	15.4-	15.11-	15.18-	15.25-	15.32-	15.39-	15.46-
14纤维染色班	15.46-	15.53-	16.1-	16.8-	16.15-	16.22-	16.29-	16.36-	16.43-	16.50-	16.57-	17.4-	17.11-	17.18-	17.25-	17.32-	17.39-	17.46-	17.53-
14纤维染色班	17.53-	18.1-	18.8-	18.15-	18.22-	18.29-	18.36-	18.43-	18.50-	18.57-	19.4-	19.11-	19.18-	19.25-	19.32-	19.39-	19.46-	19.53-	20.1-
14纤维染色班	20.1-	20.8-	20.15-	20.22-	20.29-	20.36-	20.43-	20.50-	20.57-	21.4-	21.11-	21.18-	21.25-	21.32-	21.39-	21.46-	21.53-	22.1-	22.8-
14纤维染色班	22.8-	22.15-	22.22-	22.29-	22.36-	22.43-	22.50-	22.57-	23.4-	23.11-	23.18-	23.25-	23.32-	23.39-	23.46-	23.53-	24.1-	24.8-	24.15-
14纤维染色班	24.15-	24.22-	24.29-	24.36-	24.43-	24.50-	24.57-	25.4-	25.11-	25.18-	25.25-	25.32-	25.39-	25.46-	25.53-	26.1-	26.8-	26.15-	26.22-
14纤维染色班	26.22-	26.29-	26.36-	26.43-	26.50-	26.57-	27.4-	27.11-	27.18-	27.25-	27.32-	27.39-	27.46-	27.53-	28.1-	28.8-	28.15-	28.22-	28.29-
14纤维染色班	28.29-	28.36-	28.43-	28.50-	28.57-	29.4-	29.11-	29.18-	29.25-	29.32-	29.39-	29.46-	29.53-	30.1-	30.8-	30.15-	30.22-	30.29-	30.36-
14纤维染色班	30.36-	30.43-	30.50-	30.57-	31.4-	31.11-	31.18-	31.25-	31.32-	31.39-	31.46-	31.53-	32.1-	32.8-	32.15-	32.22-	32.29-	32.36-	32.43-
14纤维染色班	32.43-	32.50-	32.57-	33.4-	33.11-	33.18-	33.25-	33.32-	33.39-	33.46-	33.53-	34.1-	34.8-	34.15-	34.22-	34.29-	34.36-	34.43-	34.50-
14纤维染色班	34.50-	34.57-	35.4-	35.11-	35.18-	35.25-	35.32-	35.39-	35.46-	35.53-	36.1-	36.8-	36.15-	36.22-	36.29-	36.36-	36.43-	36.50-	36.57-
14纤维染色班	36.57-	37.4-	37.11-	37.18-	37.25-	37.32-	37.39-	37.46-	37.53-	38.1-	38.8-	38.15-	38.22-	38.29-	38.36-	38.43-	38.50-	38.57-	39.4-
14纤维染色班	39.4-	39.11-	39.18-	39.25-	39.32-	39.39-	39.46-	39.53-	40.1-	40.8-	40.15-	40.22-	40.29-	40.36-	40.43-	40.50-	40.57-	41.4-	41.11-
14纤维染色班	41.11-	41.18-	41.25-	41.32-	41.39-	41.46-	41.53-	42.1-	42.8-	42.15-	42.22-	42.29-	42.36-	42.43-	42.50-	42.57-	43.4-	43.11-	43.18-
14纤维染色班	43.18-	43.25-	43.32-	43.39-	43.46-	43.53-	44.1-	44.8-	44.15-	44.22-	44.29-	44.36-	44.43-	44.50-	44.57-	45.4-	45.11-	45.18-	45.25-
14纤维染色班	45.25-	45.32-	45.39-	45.46-	45.53-	46.1-	46.8-	46.15-	46.22-	46.29-	46.36-	46.43-	46.50-	46.57-	47.4-	47.11-	47.18-	47.25-	47.32-
14纤维染色班	47.32-	47.39-	47.46-	47.53-	48.1-	48.8-	48.15-	48.22-	48.29-	48.36-	48.43-	48.50-	48.57-	49.4-	49.11-	49.18-	49.25-	49.32-	49.39-
14纤维染色班	49.39-	49.46-	49.53-	50.1-	50.8-	50.15-	50.22-	50.29-	50.36-	50.43-	50.50-	50.57-	51.4-	51.11-	51.18-	51.25-	51.32-	51.39-	51.46-
14纤维染色班	51.46-	51.53-	52.1-	52.8-	52.15-	52.22-	52.29-	52.36-	52.43-	52.50-	52.57-	53.4-	53.11-	53.18-	53.25-	53.32-	53.39-	53.46-	53.53-
14纤维染色班	53.53-	54.1-	54.8-	54.15-	54.22-	54.29-	54.36-	54.43-	54.50-	54.57-	55.4-	55.11-	55.18-	55.25-	55.32-	55.39-	55.46-	55.53-	56.1-
14纤维染色班	56.1-	56.8-	56.15-	56.22-	56.29-	56.36-	56.43-	56.50-	56.57-	57.4-	57.11-	57.18-	57.25-	57.32-	57.39-	57.46-	57.53-	58.1-	58.8-
14纤维染色班	58.8-	58.15-	58.22-	58.29-	58.36-	58.43-	58.50-	58.57-	59.4-	59.11-	59.18-	59.25-	59.32-	59.39-	59.46-	59.53-	60.1-	60.8-	60.15-
14纤维染色班	60.15-	60.22-	60.29-	60.36-	60.43-	60.50-	60.57-	61.4-	61.11-	61.18-	61.25-	61.32-	61.39-	61.46-	61.53-	62.1-	62.8-	62.15-	62.22-
14纤维染色班	62.22-	62.29-	62.36-	62.43-	62.50-	62.57-	63.4-	63.11-	63.18-	63.25-	63.32-	63.39-	63.46-	63.53-	64.1-	64.8-	64.15-	64.22-	64.29-
14纤维染色班	64.29-	64.36-	64.43-	64.50-	64.57-	65.4-	65.11-	65.18-	65.25-	65.32-	65.39-	65.46-	65.53-	66.1-	66.8-	66.15-	66.22-	66.29-	66.36-
14纤维染色班	66.36-	66.43-	66.50-	66.57-	67.4-	67.11-	67.18-	67.25-	67.32-	67.39-	67.46-	67.53-	68.1-	68.8-	68.15-	68.22-	68.29-	68.36-	68.43-
14纤维染色班	68.43-	68.50-	68.57-	69.4-	69.11-	69.18-	69.25-	69.32-	69.39-	69.46-	69.53-	70.1-	70.8-	70.15-	70.22-	70.29-	70.36-	70.43-	70.50-
14纤维染色班	70.50-	70.57-	71.4-	71.11-	71.18-	71.25-	71.32-	71.39-	71.46-	71.53-	72.1-	72.8-	72.15-	72.22-	72.29-	72.36-	72.43-	72.50-	72.57-
14纤维染色班	72.57-	73.4-	73.11-	73.18-	73.25-	73.32-	73.39-	73.46-	73.53-	74.1-	74.8-	74.15-	74.22-	74.29-	74.36-	74.43-	74.50-	74.57-	75.4-
14纤维染色班	75.4-	75.11-	75.18-	75.25-	75.32-	75.39-	75.46-	75.53-	76.1-	76.8-	76.15-	76.22-	76.29-	76.36-	76.43-	76.50-	76.57-	77.4-	77.11-
14纤维染色班	77.11-	77.18-	77.25-	77.32-	77.39-	77.46-	77.53-	78.1-	78.8-	78.15-	78.22-	78.29-	78.36-	78.43-	78.50-	78.57-	79.4-	79.11-	79.18-
14纤维染色班	79.18-	79.25-	79.32-	79.39-	79.46-	79.53-	80.1-	80.8-	80.15-	80.22-	80.29-	80.36-	80.43-	80.50-	80.57-	81.4-	81.11-	81.18-	81.25-
14纤维染色班	81.25-	81.32-	81.39-	81.46-	81.53-	82.1-	82.8-	82.15-	82.22-	82.29-	82.36-	82.43-	82.50-	82.57-	83.4-	83.11-	83.18-	83.25-	83.32-
14纤维染色班	83.32-	83.39-	83.46-	83.53-	84.1-	84.8-	84.15-	84.22-	84.29-	84.36-	84.43-	84.50-	84.57-	85.4-	85.11-	85.18-	85.25-	85.32-	85.39-
14纤维染色班	85.39-	85.46-	85.53-	86.1-	86.8-	86.15-	86.22-	86.29-	86.36-	86.43-	86.50-	86.57-	87.4-	87.11-	87.18-	87.25-	87.32-	87.39-	87.46-
14纤维染色班	87.46-	87.53-	88.1-	88.8-	88.15-	88.22-	88.29-	88.36-	88.43-	88.50-	88.57-	89.4-	89.11-	89.18-	89.25-	89.32-	89.39-	89.46-	89.53-
14纤维染色班	89.53-	90.1-	90.8-	90.15-	90.22-	90.29-	90.36-	90.43-	90.50-	90.57-	91.4-	91.11-	91.18-	91.25-	91.32-	91.39-	91.46-	91.53-	92.1-
14纤维染色班	92.1-	92.8-	92.15-	92.22-	92.29-	92.36-	92.43-	92.50-	92.57-	93.4-	93.11-	93.18-	93.25-	93.32-	93.39-	93.46-	93.53-	94.1-	94.8-
14纤维染色班	94.8-	94.15-	94.22-	94.29-	94.36-	94.43-	94.50-	94.57-	95.4-	95.11-	95.18-	95.25-	95.32-	95.39-	95.46-	95.53-	96.1-	96.8-	96.15-
14纤维染色班	96.15-	96.22-	96.29-	96.36-	96.43-	96.50-	96.57-	97.4-	97.11-	97.18-	97.25-	97.32-	97.39-	97.46-	97.53-	98.1-	98.8-	98.15-	98.22-
14纤维染色班	98.22-	98.29-	98.36-	98.43-	98.50-	98.57-	99.4-	99.11-	99.18-	99.25-	99.32-	99.39-	99.46-	99.53-	100.1-	100.8-	100.15-	100.22-	100.29-
14纤维染色班	100.29-	100.36-	100.43-	100.50-	100.57-	101.4-	101.11-	101.18-	101.25-	101.32-	101.39-	101.46-	101.53-	102.1-	102.8-	102.15-	102.22-	102.29-	102.36-
14纤维染色班	102.36-	102.43-	102.50-	102.57-	103.4-	103.11-	103.18-	103.25-	103.32-	103.39-	103.46-	103.53-	104.1-	104.8-	104.15-	104.22-	104.29-	104.36-	104.43-
14纤维染色班	104.43-	104.50-	104.57-	105.4-	105.11-	105.18-	105.25-	105.32-	105.39-	105.46-	105.53-	106.1-	106.8-	106.15-	106.22-	106.29-	106.36-	106.43-	106.50-
14纤维染色班	106.50-	106.57-	107.4-	107.11-	107.18-	107.25-	107.32-	107.39-	107.46-	107.53-	108.1-	108.8-	108.15-	108.22-	108.29-	108.36-	108.43-	108.50-	108.57-
14纤维染色班	108.57-	109.4-	109.11-	109.18-	109.25-	109.32-	109.39-	109.46-	109.53-	110.1-	110.8-	110.15-	110.22-	110.29-	110.36-	110.43-	110.50-	110.57-	111.4-
14纤维染色班	111.4-	111.11-	111.18-	111.25-	111.32-	111.39-	111.46-	111.53-	112.1-	112.8-	112.15-	112.22-	112.29-	112.36-	112.43-	112.50-	112.57-	113.4-	113.11-
14纤维染色班	113.11-	113.18-	113.25-	113.32-	113.39-	113.46-	113.53-	114.1-	114.8-	114.15-	114.22-	114.29-	114.36-	114.43-	114.50-	114.57-	115.4-	115.11-	115.18-
14纤维染色班	115.18-	115.25-	115.32-	115.39-	115.46-	115.53-	116.1-	116.8-	116.15-	116.22-	116.29-	116.36-	116.43-	116.50-	116.57-	117.4-	117.11-	117.18-	117.25-
14纤维染色班	117.25-	117.32-	117.39-	117.46-	117.53-	118.1-	118.8-	118.15-	118.22-	118.29-	118.36-	118.43-	118.50-	118.57-	119.4-	119.11-	119.18-	119.25-	119.32-
14纤维染色班	119.32-	119.39-	119.46-	119.53-	120.1-	120.8-	120.15-	120.22-	120.29-	120.36-	120.43-	120.50-	120.57-	121.4-	121.11-	121.18-	121.25-	121.32-	121.39-
14纤维染色班	121.39-	121.46-	121.53-	122.1-	122.8-	122.15-	122.22-	122.29-	122.36-	122.43-	122.50-	122.57-	123.4-	123.11-	123.18-	123.25-	123.32-	123.39-	123.46-
14纤维染色班	123.46-	123.53-	124.1-	124.8-	124.15-	124.22-	124.29-	124.36-	124.43-	124.50-	124.57-	125.4-	125.11-	125.18-	125.25-	125.32-	125.39-	125.46-	125.53-
14纤维染色班	125.53-	126.1-	126.8-	126.15-	126.22-	126.29-	126.36-	126.43-	126.50-	126.57-	127.4-	127.11-	127.18-	127.25-	127.32-	127.39-	127.46-	127.53-	128.1-
14纤维染色班	128.1-	128.8-	128.15-	128.22-	128.29-	128.36-	128.43-	128.50-	128.57-	129.4-	129.11-	129.18-	129.25-	129.32-	129.39-	129.46-	129.53-	130.1-	130.8-

[illegible]

窑制玻璃工艺 64学时 3学分 【郑江涛】【玻璃实验室】	灯工玻璃工艺64学时3学分 【李华刚】（大师进课堂） 【玻璃实验室】	吹制玻璃器皿64学时 3学分 【黄江海】【玻璃实验室】 5月3日外出考察 5月16日-5月16日校外实践课程
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6.5 The results of the questionnaires from the glass studio in the four universities

Some useful information was achieved from this exercise.

6.5.1 About Inside painting of Chinese snuff bottles

1) All the glass artists, glass teachers and students agree with the statements that:

- Traditional inside painting has little influence in Chinese arts.
- Chinese traditional inside painting is a folk craft.
- Chinese art students knew little about traditional inside painting.

Hence, the results show that the traditional Chinese inside painting of snuff bottles has a low social position and has limited publicity in contemporary China. The traditional inside painters are looked upon as craftsmen.

6.5.2 About the western glass painting in China

- All the Chinese glass students knew little about Western glass painting.
- Most of the Chinese glass artists and students haven't applied west painting methods in their glass works.
- All the Chinese glass artists, teachers and students wanted to apply west painting methods in their glass works.

The survey showed that contemporary Chinese academic glass teaching is in its developmental stage, and it contains the potential for more production methods to be introduced and exploited.

6.5.3 About the new forms inside painting in this research

- All the Chinese glass artists, teachers and students wanted to apply the new form of inside painting methods in their glass works.
- All the Chinese glass artists, teachers and students agreed with the personal idea that the outside art form should firmly integrate with the inside painting content.
- All the Chinese glass artists, teachers and students accepted that this author's new form of inside painting in glass sculptures is a fresh creation.

- All the Chinese glass artists, teachers and students indicated that my new form of inside painting method should be introduced into contemporary Chinese academic glass teaching.
- All the Chinese glass artists, teachers and students agreed with my new form of inside painting method could have a good future.

The results show that the new form of inside painting method is a promising application into contemporary Chinese academic glass teaching which needs to be developed.

6.5.4 The comments to my inside painting glass sculptures from the questionnaires from Chinese glass teachers and students

1) From Tsinghua University Academy of Art & Design

Donghai Guan (關東海) (Glass artist and teacher): It is a kind of new creation. The west painting glass usually needs to fire, but Chinese inside painting of snuff bottles usually is painted by Chinese pigment, few needs to fire. For your research, as a new creation style, it deserves to be encouraged.

Jixian Huang (黃繼嫻) (Representative student):

Work *Waiting* is very fluent in blowing figures. I like it, especially the outside figures firmly combined with the inside painting contents is so natural, and I can understand the stories in the paintings. When I saw them I was captured immediately, very interesting. *Girl* give me a sense of „harmony“. *Pregnant* II the frizzy figure embraces the beautiful landscape, I love the style of ink painting in the sculpture, it is easy to strike a chord.

2) From China Academy of Fine Arts

Han Xi (韓熙) (Glass artist and teacher) : Inside painting of Chinese snuff bottles is a traditional art style. As a contemporary new kind of creation form in your research, you have achieved a lot in developing the traditional inside painting techniques. Mr Guo is the rare expert in inside painting of glass sculptures in the whole glass world. He based the advantage of his professional sculpture and absorbed the excellence of

traditional culture to create a special style of glass artwork, it is a very valuable research.

Jinlong Xu (許金龍) (Glass artist and teacher) : The inside painting contemporary glass sculptures activated the traditional culture. It is a very good creation style. Hope this style can be developed in the future.

Wanglin Xie (謝王林) (representative student) : This research activated the traditional inside of Chinese snuff bottles. It is a new style of glass creation. The contemporary inside painting of glass sculpture inherited the techniques of traditional inside painting, it is an excellent self-expression art style.

3) Shanghai University Academy of Fine Arts

Xiaoshu Luo (羅小戍) (Glass artist and teacher): The research showed a new creation art style, inherited and developed the traditional inside painting. It deserves to be developed in the future.

Shiqi Wu (吳仕奇) (Representative student) : I don't know much about sculpture. But your inside painting glass sculptures undoubtedly are very fresh, is a new style of art. It can be a special form for the art creation in the future.

4) Shandong University of Art & Design

Jiangtao Zheng (鄭江濤) (Glass artist and teacher) : The works combined sculpture and inside painting, it is a bold and useful attempt. The research inherited traditional crafts skills and developed into a new form of glass art, is a special form of artistic presentation.

Shou Guo (郭守) (Representative student) : The artworks combine inside painting and contemporary sculpture together. Certainly, it is a new art creation. It is meaningful to the whole glass world.

5) The Science and Technology University of Qingdao

Jin Qu (屈金) : Firstly, I do think your inside painting glass sculpture is a style of novel artwork. Secondly, the artwork inspired from west glass painting and Chinese traditional inside painting, in the whole glass word, it developed a school of your own, it is a marvelous contribution to the glass art realm. Lastly, if you can introduce this art form that combined outside and inside for self-expression to Chinese contemporary academic glass teaching, it will be useful to the glass teaching and I do think it will have a promising future.

6.5.5 The results of the questionnaires of glass curriculums in the glass studios of the four universities

1) Glass curriculum in Tsinghua University Academy of Art & Design

The glass courses are:

- . Introduction to glass art
- . Flame working
- . Kiln-casting glass
- . Blowing glass
- . Ornamental glass
- . Pasting glass

2) Glass curriculum in China Academy of Fine Arts The glass courses are:

- . Kiln-casting glass
- . Blowing glass
- . Forming and decorating glass
- . Mosaic glass
- . Glass material experiment
- . pâte-de-verre glass
- . Engraving glass
- . Flame working glass . Architecture glass

3) Glass curriculum in Shanghai University Academy of Fine Arts The glass courses are:

- . Kiln-casting glass

4) Shandong University of Art and Design

The glass courses are:

- Introduction to glass art
- Kiln-casting glass
- Blowing glass
- Flame working glass

The survey of curriculums in the four main glass studios in China suggests that there are no inside painting of glass sculpture courses in these studios. Hence, the chance is there for introducing the „new form“ of inside painting shown in this research to contemporary Chinese academic glass teaching.