

School of Design and Built Environment

**An Investigation of the Referential Significance of Tradition in
Contemporary Jewellery — the Case of Han Dynasty Jade**

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of
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DECLARATION

To the best of my knowledge and belief this thesis contains no material previously published by any other person except where due acknowledgment has been made.

This thesis contains no material which has been accepted for the award of any other degree or diploma in any university.

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ABSTRACT

The lack of originality has become the main problem in the development of contemporary jade carving. Blindly copying the traditions in contemporary jade carving is not acceptable. This study aims to learn from the Han Chinese jade traditions and to design contemporary jade carvings with Chinese traditional characteristics. The research is divided into two parts: theoretical investigation and creative production.

In the theoretical investigation, comprehensive literature research on jade carving design in the Han dynasty focused on social philosophy and design approaches. An interdisciplinary study of the mainstream philosophies of the Han dynasty was carried out to clarify a wide range of ideas and background cultural knowledge about the generation and development of Han jade carving. Three major social philosophy systems were found to have influenced Han jade carving in many aspects: (1) Huang Lao thought advocated the principles of non-interference and simplification, and had a broad influence on the design and theme determination of jade carving in the Han dynasty. (2) Confucianism formed a cultural system in the society and Confucian doctrine was applied to art design forms and styles. (3) Superstition had a secular influence on the functions of jade. By drawing from the varied philosophical systems, Han jade consequently shows diverse characteristics. These three rich philosophical systems constitute the basic cultural frame of Han dynasty jade carving, and serve as the theoretical framework for the design principles and rules for contemporary jade carving.

In the creative production, basic design principles were proposed and combined with modern design aesthetics. The production process included creating design themes with reference to the philosophical background, using auspicious meaning, emphasising both the form and spirit, adhering to the precept of simplicity design, and utilising multiple materials. A range of new jade carvings that show the combination of traditional Chinese culture, form, symbolic meaning, and contemporary aesthetics is presented using contemporary jade carving techniques. Overall, the inheritance of traditional culture plays an active role in contemporary

jade design. Meanwhile, traditions are reinterpreted in the contemporary context, which provides an opportunity for the rebirth of contemporary jade carving design.

Key words: Han dynasty jade carving, contemporary jade carving, Chinese traditions, jade culture, Chinese philosophies.

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Chapter 1 Introduction

Traditional jade carving is culturally representative of China. Questions such as how do the cultural attributes of Chinese traditional jade carving add to the contemporary era and how does traditional jade carving influence contemporary jade carving are frequently asked by jade designers and jade carving researchers. Currently, a large number of contemporary Chinese jade carving designs follow traditional jade carving modellings, decorative styles and design forms. There is no doubt that traditional jade carving has become a kind of jade carving paradigm.

Traditions are indeed important. However, finding ways to build on these traditions, and to present a closer expression of the essence of creativity and national characteristics in contemporary jade carving, is still one of the most difficult tasks for designers. Therefore, it becomes necessary to explore and gain a deeper understanding of tradition to help designers overcome this task. Similarly, grasping the essence of Chinese culture and its historical lineage is the key to interpret Chinese traditions and bring insight to contemporary jade carving design. In this thesis, Han dynasty jade carving art was chosen as the object of study to examine these traditions.

The Han dynasty (206 BCE to 220 CE), established by Liu Bang, was the second imperial dynasty of China, as well as the longest in Chinese history ([Sung et al. 2016](#)). This dynasty kept the purity of both Chinese culture and its primitive culture. The modelling, decoration style and design form of jade carving in this dynasty may be said to embody pure Chinese traditional culture. Consequently, the jade carvings in the Han dynasty have come to represent the golden age of Chinese jade carving art, and they have attracted the attention of many art and cultural researchers. Accordingly, it was decided that this thesis would focus on researching jade carving art in the Han dynasty.

Jade carving art in the Han dynasty is much more than a purely artistic form. It draw upon many disciplines such as history, arts, semiotics, archaeology, philosophy and sociology. It can be investigated by contemporary researchers using multiple disciplines and multiple perspectives. The reinterpretation jade carving art and jade culture in the Han dynasty provides a new perspective for contemporary jade carving

design to better fusion of traditional culture and modern aesthetics. Therefore, it is helpful for contemporary jade carving designers and art researchers to gain a better understanding of Chinese culture and jade culture. This will require broader and multidisciplinary research practices to thoroughly scope out traditional Han dynasty jade carving. In summary, the purpose of understanding Han dynasty jade carving art and jade culture is to further analyse the design styles of jade carving, understand the development of jade carving, and provide the theoretical bases and references for the essence of jade carving in this dynasty.

Han jade culture provides both theoretical knowledge and historical reference with rich spiritual culture for jade carving designers. It also provides a reference for the selection of traditions for contemporary aesthetics and jade carving. The referential significance of traditional Han jade is diverse, especially philosophical thoughts, jade culture, tradition jade carving design ideas, design techniques, and production methods. This enables contemporary designers to re-examine Han dynasty jade design from the perspectives of history, philosophy and culture in order to reconsider the development and changes of jade carving in the Han dynasty, to seek the essence of the traditional art, and to make the past serve the present.

In terms of research methods, it is acknowledged that it would be difficult to be comprehensively understand, and to subsequently master and apply, the design rules of Han dynasty jade carving in isolated technical terms. Interdisciplinary research in artistic design is becoming a trend. In recent years, the development of interdisciplinary design has, to a certain extent, widened the scope for scholarly discussion in the field of jewellery design. Artistic design has gradually transited from a single subject to interdisciplinary research. Therefore, it is necessary to use a multi-angled and interdisciplinary approach in this research by means of extensive literature studies, fieldwork and creative production to engage with Han dynasty jade carving art.

1.1 Research topics

The aim of this study is to understand how jade carving in the Han dynasty can influence and contribute to contemporary jewellery design. The study is divided into lines of inquiry:

(1) Research into the mainstream philosophical studies in the Han dynasty

The mainstream philosophy in the Han dynasty that this research takes into consideration include Huang Lao thought, Taoism, Confucianism and superstition thoughts, which have had a great influence on jade culture and design.

(2) Research into the Han dynasty jade culture

Under the influence of philosophy, Han jade was given special social meaning and cultural significance. This is also a distinctive feature in Chinese culture that differs from other civilisations. Han jade culture has influenced the Chinese designer's ideas and spirit, and has become an indispensable part of Chinese culture. This pivotal cultural position also has a far-reaching impact on jade carving design.

(3) Research into the Han dynasty jade carving design ideology

Han jade carving design ideology has originated from Han dynasty philosophy and jade culture, and it is of great importance for people to understand how the predecessors transferred many design determinants, such as philosophical thoughts and jade culture, to jade carving design. This topic provides a reference for the directing the selection of traditions and references for contemporary jade carving.

(4) Lessons learnt from traditions for contemporary jade carving design

Lessons learnt from traditions include philosophical ideas, jade culture, design techniques, and production methods. As references, they are of great value to contemporary jade carving design. This research attempts to apply the lessons learnt from traditions to contemporary jade carving design.

1.2 Research objectives

(1) Understanding the influence of mainstream philosophical thoughts and culture on the design of jade carving in the Han dynasty.

The traditions and development of jade carving culture in the Han dynasty in China need to be firstly outlined. Furthermore, the design principles of jade carving in the Han dynasty must be summarised. By doing so, this research will provide theoretical foundations for letting the past serve the present.

(2) Examining how traditional Han dynasty jade carving aesthetics, such as the concepts of ‘spirit and form’ and ‘unity of man and nature’ can be fused with a representative Chinese design form.

This is critical for exploring notions of Chinese cultural identities and their values which can be applied to contemporary jade carving design.

(3) Creative production demonstrating the use of Han dynasty jade carving traditions to contribute an updated contemporary aesthetic for jade design.

The creative production provides a tangible demonstration of the past serving the present. It offers a visualised opportunity to see the referential significance of traditional Han jade in contemporary jewellery.

1.3 Thesis structure

Following the research topic and objectives, the thesis is divided into two interconnected parts. In the first part, the literature review and an introduction to the historical background and traditions of Han dynasty jade are provided. In addition, the significance of Han jade to contemporary jade development is examined. In the second part, the creative production of jewellery under the inspiration of Han jade is demonstrated and discussed. The main contents in the thesis are outlined below:

Chapters 1 and 2 give an overview of the research themes and background literature. The cultural properties of jade and the referential potential of basic concepts such as philosophy, aesthetics, jade culture and materials are briefly introduced. The main research methods and resources are also stated and listed.

Chapters 3 and 4 introduce the different traditions of Han jade, including the philosophical background, aesthetics, design and production techniques. Traditional philosophy and its effects on jade carving design in the Han dynasty are illustrated, particularly in regards to how Huang Lao thought and Confucianism were applied to

Han jade design. The aesthetics, design and social values of Han jade are explored through cultural relics. These two chapters provide the theoretical knowledge for the foundations of the design of Chinese contemporary jade carving.

Chapter 5 explores the significance of traditional Han jade to contemporary jade design by referring to specific examples as well as new trends in Chinese contemporary jade designs. The reference points that can be used in contemporary jade design from Han jade are comprehensive, including theme creation, form aesthetic, elements design, simplification process, symbolic usage, among others. The combination of traditional and contemporary aesthetics in different forms could potentially create the most fashionable works of the times with Chinese cultural elements.

Chapter 6 demonstrates the researcher's creative jewellery production with inspiration from traditional Han jade. New designs inspired by the traditional jade animals and burial jade forms under the influence of Huang Lao thought were completed. The concept of 'form and spirit' in Taoist doctrine is discussed in relation to this series of creative production work. Moreover, the relationship between class attribute and human behaviour is discussed through the understanding of benevolence and ritual in Confucianism.

Chapter 7 concludes the main work and findings in this thesis.

1.4 Tradition as an inspiration for contemporary design

Tradition is the source of innovation. In this section, as case of contemporary design is illustrated to support the proposition that Chinese contemporary design can become culturally richer if it is combined with traditional Chinese characteristics.

1.4.1 Value of tradition

Understanding the inheritance of value of tradition has never been an easy task. Design masters such as Geng Changjun, Chen Hanmin, Kan Tai-Keung and Leoh

Ming Pei¹ have devoted their whole lives to combining traditional culture with modern design. An existing problem in China, however, is the regurgitation of traditional culture in design work. For example, the Beijing West Railway Station (**Figure 1**) has been described as a “pavilion fallen out of the sky ([C. Li 2012, para. 4](#))”, which means that the designers were just single-mindedly and blindly running after national and traditional characteristics. People criticised the many-layered brims under the station’s roof. Consequently, the design was later suddenly terminated. Even though a new construction form was conceived and created by architects, it rapidly disintegrated into parody ([H. Zhao 2006](#)). There is nothing wrong with the pursuit of design with traditional values, but how to use tradition and how to express it are questions that contemporary designers need to consider carefully ([C. Li 2012](#)).



Figure 1 Beijing west railway station. Photo taken at Beijing North Square by Tracy Anne Copson in Beijing, China. 2018.

When it comes to the specific inspirations of traditional Chinese design value and social meaning, the case of the emblem of the 2008 Beijing Olympics (**Figure 2**) is a perfect example. The emblem was a traditional Chinese seal, which consisted of a single Chinese character in red, a traditional colour of Chinese culture ([Haley 2012](#)). The emblem shows a man running, jumping and dancing, which is in sync with the Olympic spirit of ‘Faster, Higher, and Stronger’ ([Bonigala 2008](#)). The logo for the Beijing 2008 Olympic games continued the tradition of incorporating an

¹ Geng Changjun, Chinese contemporary jade carving artist; Chen Hanmin, Professor at the central academy of arts and crafts, Graphic designer and craft artist; Kan Ti-Keung, Chinese graphic designer; Leoh Ming Pei, Architectural designer. The representative works: Bank of China tower (Hong Kong) and Louvre pyramid.

image ([Gosling 2016](#)). There are three groups of people with different attitudes towards this emblem in the art and design community: approval on the whole, partial approval, and basic disapproval. The first group thought that the logo had “done well to apply traditional art forms to modern art and design ([C. Guo 2003, para. 6](#))”. “A seal is itself a work of symbols and abstract, unlike the Great Wall, usually a specific picture, which gives a clear, impressive visual effect,” said Wang, a professor at the Central Academy of Fine Arts ([C. Guo 2003, para. 9](#)). He also stressed that the emblem of the 2008 Beijing Olympic Games is first of all “a design, not a pure traditional seal”. The emblem retained the overall structure of a seal, “but with some adjustments (removing excessive detail) to make the design more solemn”, said Jin Shangyi, a famous oil painter and chairman of the Chinese Artists’ Association, who was on the logo selection panel ([B. Qing 2003, para. 6](#)). Chen Shaohua, who was one of the official emblem designers, provided a defense of the design that was reflected in other positive reviews of the emblem. He said: “there is no problem with using the form of a Chinese seal. The Chinese seal is fine, exquisite, and showing strength in the way that it is cut, which consistently matches the Olympic spirit ([J. Li 2003, para. 7](#))”. However, it was argued that the emblem design did not show this kind of spirit, as it lacked power and passion, and did not reflect the concept of the new Beijing ([J. Li 2003, para. 7](#)). The selected theme of the Chinese seal was well received, as the design was based on tradition, but it was not ideal for reflecting the contemporary national cultural spirit. “We do not have to return to tradition, but we do have to use it as a resource for today,” remarked Fu Jingsheng ([C. Guo 2003, para. 11](#)).



Figure 2 The Logo for the Beijing 2008 Olympic Games. Image reprinted from Allan Haley (2012).

Taotie (a traditional Chinese mythological creatures) is another valuable traditional symbol that has been widely carved on Shoushan stone. Artists have used this element and also transferred it to the modern elements of a mobile phone's integrated board. This work is regarded as "an update of traditional culture" ([Sun 2012, para. 2](#)), which has left people wondering about what is happening in China today, and whether such art pieces can represent the changes China is going through ([Geng 2002](#)). These debates are broad ranging but nonetheless emphasise that the ideal Chinese jade carving should reflect the attributes of traditional culture, as well as a contemporary consciousness. Above all, art must be the result of independent thinking by artists, rather than the result of copying existing ideas or modes of thinking ([Gu 2013](#)). Therefore, the artistic language, form and medium of traditional art are the most important aspects that deserve the attention of designers, especially in this age of globalisation.

1.4.2 Design elements, techniques and materials selection

Nowadays, many designers have already started to incorporate traditional design elements into modern design, for example, 'China series' by Ah Xian² consists of luminous porcelain busts of unnamed models, each with a unique poise and countenance, overpainted with fine landscapes, flowers and other motifs derived from a range of sources, from the venerated to the vernacular (**Figure 3**). The bust is part of a western portraiture tradition dating back to the ancient Roman times, whereas the design of decorative patterns on the bust are derived from Chinese decorative traditions, which are unique to China and in some cases specifically to the studio kilns at Jingdezhen ([Jobson 2014](#)).

²Ah Xian is a Chinese artist who has lived and worked in Sydney for nearly two decades. He has explored aspects of the human form using ancient Chinese craft methods including porcelain, lacquer, jade, bronze and even concrete.



Figure 3 Ah Xian. Porcelain busts with Chinese decorative designs, 2014. Images reprinted from Jobson and Storer (2014).

There is also a resurgence in drawing inspiration from traditional Chinese handicraft. Let's take Jie Sun's jewellery design as an example. The lacquer-based design was inspired by the relationship between fishermen and fish based on an artist's personal experience in a little fishing village. Special consideration must be given to this kind of jewellery design, which expresses a vivid relationship between the brooch and its wearer: visually, this is not simply a brooch when the wearer wears it; instead, it looks like the fish is embedded on the body (**Figure 4**) ([Ladies and Gents 2013](#)). Extending on this example, the subtle attention to natural forms and handicraft technique allows jewellery artists to create works that have a strong visible presence. The way he draw from tradition is his innovation of the lacquer technique.



Figure 4 Jie Sun³, Gold Fish, 2008. Image reprinted from Ladies and Gents (2013, para. 2).

Jewellery designers are trying to maximise the potential applications of traditional materials in contemporary jade carving design ([Yan 2002](#)). However, contemporary designs inspired by traditional design element with incongruous materials and elements are still developing and are ever-changing. The Chinese knot is another typical Chinese element. Designers have tried to use it with diamonds (a typical western jewellery material) in jewellery design, but the result is unsatisfactory as the majority of Chinese consumers do not accept it. The diamond pieces do not show the elegant traits of Chinese art; instead, they appear stiff (**Figure 5** left). This is because the concepts have been awkwardly combined. In contrast, a jade Chinese knot element dotted with a few diamonds is a more successful conceptual combination of two kinds of different and contrasting materials (**Figure 5** right) ([Versteeg, van den Hoven and Jonsson 2016](#)). During the process of design, the traditional design element and form must be consistent with the chosen materials. Otherwise, this will produce abrupt and dissonant design works.

³ Jie Sun is a contemporary jewellery designer who has worked on major collaborative and curatorial design projects that are actively engaged in both European and Asian design cultures. His artworks are collected in the British Museum and Netherlands Museum.



Figure 5 Artist unknown, Jewellery pieces with Chinese elements, 2014. Image reprinted from Jobson (2014).

The incorporation of traditional motifs into contemporary Chinese design practices such as Ah Xian's and Jie Sun's artworks has been productive. Tradition is important, as it provides useful ideas that are not controversial, and also offers starting points that are helpful for solving practical problems (Temple 2010). The traditional view of art is that it is a window into the national civilisation (Traganou 2010) through which art design can be transformed into extremely recognisable cultural works. However, contemporary design needs to carry the mark of the times. The referencing of tradition does not mean directly copying it. Instead, contemporary designers need to consider, analyse and recognise the art and background of the past civilisation. Thus, tradition is the obligatory resources for Chinese contemporary designers.

1.5 Introduction to Han dynasty jade carving

The design of jade carving in the Han dynasty has a great influence on the design of contemporary jade carving. The essence of jade carving design in the Han dynasty is a window into understanding Chinese culture. This section introduced the typical factors of Han dynasty jade carving that inspire contemporary jade carving design, including jade culture, philosophy and aesthetics, social meanings and techniques.

1.5.1 Han jade history and culture

Jade is distinctive not only because of its origins but because of the way in which it is both a manifestation and reflection of Chinese culture. The art of Chinese jade carving has developed continuously over seven thousand years. The time span alone gives us an idea of the extraordinary significance of jade in the history of Chinese culture.

Jade carving epitomised the arts and crafts of the Han dynasty, as it not only shows the level of skills achieved in the arts and crafts, but also represents the level of civilisation and cultural thought in that era. The history of jade in the Han dynasty has always been associated with Huang Lao thought, Confucianism and Taoism. Under the influence of these philosophical systems, the Chinese people have given this material great cultural significance, and treated it as a distinctive feature of Chinese culture that is unique in comparison to other civilisations. Jade culture appears throughout the history of Chinese civilisation. It has evolved into a national awareness at the behest of the political hierarchy, and contributed to the promotion of its social civilisation. It has also influenced the Chinese people's ideas and spirit, and eventually has become an indispensable part of Chinese culture. This pivotal cultural position has had a far-reaching impact on jade carving culture and determined the directions of jade carving design in the Han dynasty.

To better understand the jade history and jade culture in ancient times, it is necessary to look at the adjacent dynasties of Han, such as Xia, Shang and Qin. In accordance with historical chronology, any new design is established on the basis of criticising and reconstructing the previous ones ([C. Li 2011](#)). The essence of the Qin and Han dynasties' jade carving culture is "transmitting the spirit ([L. Luo 2007, p. 33](#))"; the creative principles and methods are derived from this foundational point. According to the principle of "transmitting the spirit", subsequent designers that followed would have to redesign the original elements rather than directly changing the artistic elements of the Qin and Han dynasties. This design approach ensures the preservation of the ancient style while injecting new vitality into jade carving over time. Therefore, the development of jade carving not only reflects the impact of the

most recent dynasty, but also retains the unique design characteristics from prior dynasties.

1.5.2 Han jade carving aesthetics and design

Jade is a path towards beauty. Knowing the Han jade carving aesthetics and design ideology is important because it aids in understanding how the ancient craftsmen transferred many design determinants into jade carving. However, the reasons for changes in aesthetics are quite complex, having to do not only with the refinement of jade-carving technique but also with broader social and historical developments, as well as the influence of variations in artistic style. Thus, the study of changing aesthetics taste in jade is of value to both art scholarship and the understanding of Chinese culture ([M. Weisbrod 2019](#)).

“The jade-made figure of a dancer was a popular wearable jade accessory of the Han dynasty ... the jade dancers were mostly found in female burials, and were the most prevalent type of wearable jade among noblewomen ([Lu 1996, p. 6](#))”. The remaining large number of cultural relics of jade dancers that provide an important basis for understanding the aesthetic changes of jade carving in Han dynasty ([Bao 2008](#)). The **figure 6** shows the design form evolution of the jade dancers, which reflects the change of aesthetics. On the one hand, the refinement of jade carving technique improves the aesthetic level, for example, the design style from simple to complex. The figurines became more with elegant face and tranquil expression, and wear typical Han-style robes with right lapels and fastened around the waist with a sash. On the other hand, adding greater depth and detail to the ornamental engraving reflected the skills in jade carving progressed. However, no matter how the design evolution, the jade dancers have always retained the fixed design elements and modelling features, namely, the design element of long-sleeve, S-shaped carving form and modelling features of long-sleeve over the top of the head. The fixed design form may be related to the wearing function. Therefore, there is an inevitable connection between aesthetics and technological development, and the design will be restricted by the function.



Figure 6 Artist unknown, Evolution of jade dancer design. 2013

Images reprinted from L, Zhang (2013, p. 192-193)

1.5.3 Han jade carving technique

Jade carving is a time-honored skill, it falls under the hardstone carving category - a form of artistic carving of predominantly semi-precious stones that incorporates both jewellery making and sculpture. The main carving techniques of the Han dynasty consists of rotary techniques (drilling, wheel-cutting and rotary sawing) and non-rotary techniques (sawing, flexible string sawing, riffling, point (or blade) abrasion). The methods used to shape and decorate a material as tough as jade (nephrite and jadeite) relied upon the use of time-consuming abrasive processes rather than techniques of flaking. The abrasives were mixed with water and applied to tools, some of the grit embedding or ‘charging’ itself into the surface of the tool while a slurry remained on the surface, to be worked against the jade ([Sax et al. 2004](#)).

The one of the main reasons for why the Han dynasty jade carving techniques developed rapidly is that the Han dynasty entered the Iron Age ([Kong 2007](#)). The smelting of iron accelerated the development of jade carving tools and advanced equipment. Early pieces have engraved simple linear designs, but the invention of Shui Deng⁴ (**Figure 7**) helped craftsmen improve the quality and achievement of

⁴ The primitive jade carving equipment is called Shui Deng ([J. Wang 2007](#)), that is, carving with a manually operated equipment. Shui Deng equipment offers a relatively faster carving speed than hand carving, as it is powered by human hands and feet simultaneously. The Shui Deng is suitable for making small and medium-sized jade objects, as well as for the fine details of objects.

their jade carving works. A more sophisticated appearance of jade carving was achieved by improvement of jade carving equipment and technique so that the object had many contours, niches, and points which were highly polished. During this period, China entered the first peak period of jade production.



Figure 7 Han jade carving equipment - Shui Deng.

1.6 Conclusion

The introduction of several designed contemporary works from different social backgrounds shows that tradition can be borrowed from and used for reference in contemporary design. Without tradition, contemporary design, like a tree without water, cannot survive. The development of contemporary design is often marked by tradition and culture. Tradition provides direct material for the present and is straightforward, in particular for the design of cultural identities. However, in the contemporary artistic context, such ‘take-ism’ will not necessarily resonate with people in the contemporary cultural context. Tradition, culture and the contemporary are interconnected. The contemporary is developed on the basis of culture and tradition. Therefore, tradition and culture can adapt to the contemporary aesthetic and understanding only if they conform to the contemporary context. For example, through the case analysis of the 2008 Olympic Logo Chinese seal, it has been demonstrated that traditional design culture plays the guiding role in contemporary Chinese design, and that tradition and culture are important for contemporary design.

Tradition undoubtedly provides a link to the past and offers useful ideas for designers ([Temple 2010](#)). Jade carving in the Han dynasty epitomised Chinese traditional art, and it was connected closely with Chinese philosophy. This chapter introduced the cultural properties of jade and the necessity for a contemporary design to refer to the associated aspects of philosophy, aesthetics, jade culture and techniques. In order to study jade carving design in the Han dynasty, it is not only necessary to systematically examine the selection of the materials, forms of artworks, decorative patterns, and characteristics of the technology, but also to investigate the social and cultural background behind them. Full and thorough understanding of these aspects of jade carving design can help designers in better understanding the traditional and applying this to contemporary design.

In the following chapters, a new perspective on the fusion of traditional Han dynasty jade carving and contemporary jade carving is offered, and a reference for contemporary creative practice is provided. The study of Han dynasty jade carving will help designers to understand the spirit and tradition of the Han paradigm and its applicability to contemporary jade carving. The main objective of this thesis is to draw from theory and put it into a creative and practical dimension. Two inspirations could be obtained from reading this thesis. Firstly, ancient design patterns can be used as a symbol or form, and applied to modern jewellery design in such a way as to evoke a cultural response from the wearer. Secondly, designers employ cultural connotations to invigorate their ideas. The creative production work described in the latter part of this thesis aims to break the traditional conception of jade carving design with the creation of new jade carving cultural cognition and design. In so doing, the thesis is also proposing a novel aesthetic through the employment of the traditional principles of Han dynasty jade carving design.

Chapter 2 Research Methods

2.1 Research methods

This chapter describes the overall methods that have been used to investigate the influence of the traditions of Han dynasty jade on contemporary jewellery design. A very important factor in choosing the following methods is my own artistic research experience in creative design. I am a true fan of Chinese jade ([Lyons 1978](#)), having been surrounded by jade toys and told stories about jade since I was very young. Thus, jade product observation and documentation study (fieldwork) ([Crabtree, Rouncefield and Tolmie 2012](#); [Crouch and Pearce 2012](#)), as well as the making of new jade objects (creative production), are completely normal and natural to me. From the scientific research point of view, doing research in design is not possible unless a comprehensive literature review is carried out to know what has been done in this field ([Downton 2003](#)). Hence, both academic training and personal experiences with artistic study help to complete this research. They are all positive factors. Meanwhile, a structured, empirical and historical comparative analysis was employed in this research. This enables the researcher to draw out a logical flow and balance personal understandings with the results of scientific experimentation.

Additionally, historical documentation is of great importance for both understanding jade culture and providing inspiration for new design ideas. The points of connection between ancient Chinese jade designs and contemporary culture had to be found and then enlarged by using methods of creative production on top of the literature research. At the same time, the referential significance of jade carving in the Han dynasty had to be clearly shown by making jade samples directly inspired by traditional philosophy, aesthetics and jade culture. Therefore, in this chapter, the main three research methods to be discussed are literature research, fieldwork and creative production. Furthermore, the research resources and jade sample materials will also be described, including what and how case study samples were chosen, as well as decisions about which jade to use and what artworks to produce.

For this research, resources like the literature and studio space were acquired through four sources: internet public resources; Curtin library documentation and

electronic resources; fieldwork data; and studio space at the university. Resources on the historical relics were mainly accessed from museums during the fieldwork research.

2.1.1 Literature research

My background study on the Han jade involved extensive interdisciplinary research. Literature research was used to sort the published data, which includes ancient and modern books, periodicals, journal articles and essays. The literature research started by collecting and analysing a large number of relevant art and design disciplines as well as relevant literature from other disciplines (such as archaeology, philosophy, iconography, semiotics and cultural anthropology).

(1) Iconology and semiotics

Iconology is a branch of semiotics. Semiotics not only treats symbols, images, languages and other specific symbols as interpreted texts, but also as cultural phenomena, where the whole world is regarded as a text, and people's meaningful behaviours can be interpreted by semiotics ([Z. Zhang 2017](#)). Therefore, it is significant to study the design of jade carving (image, design elements, form, and so forth) and the formation and integration of jade culture in the Han dynasty by using the methods of iconology and semiotics.

(2) Holistic thinking in cultural anthropology

Holism is one of the most basic and important research methods in cultural anthropology ([Ferraro 2008](#)). From the perspective of holism, when we study any cultural phenomenon, we must put it into the context of the cultural whole, and see both its influence on the cultural whole and the cultural whole's influence on it. At the same time, we should also look at its interaction with other cultural phenomena in the culture as a whole. In other words, we should not only look at its position in the cultural structure but also examine its function in the overall culture.

This thesis uses the holistic thinking of cultural anthropology to conduct an overall and comprehensive investigation into Han dynasty jade carving (involving

the economy, politics, culture, and so on), and discusses the status and role of Han dynasty jade carving design in jade culture when investigating the cultural relics of Han dynasty jade carving .

The literature research contents broadly divided into two categories. The first category focuses on the interpretation of the related theories, mainstream philosophies, jade culture, and design ideologies of Han jade carving. The second category focuses on the interpretation of contemporary jade design, and how to draw lessons from tradition for contemporary jade design.

The literature research followed a particular historical timeline (**Figure 8**) in order to fully reveal the significance of Han jade – starting from the integration of the mainstream philosophies of the Han dynasty, followed by analysing the influence of different philosophical schools on the formation and design of jade culture in the Han dynasty, and then striving to grasp the cultural development context of Han jade carving design. The selected literature mainly focused on the three major Han dynasty philosophical schools, namely, Huang Lao thought (Taoist thought), Confucianism and superstition (derived ideas).

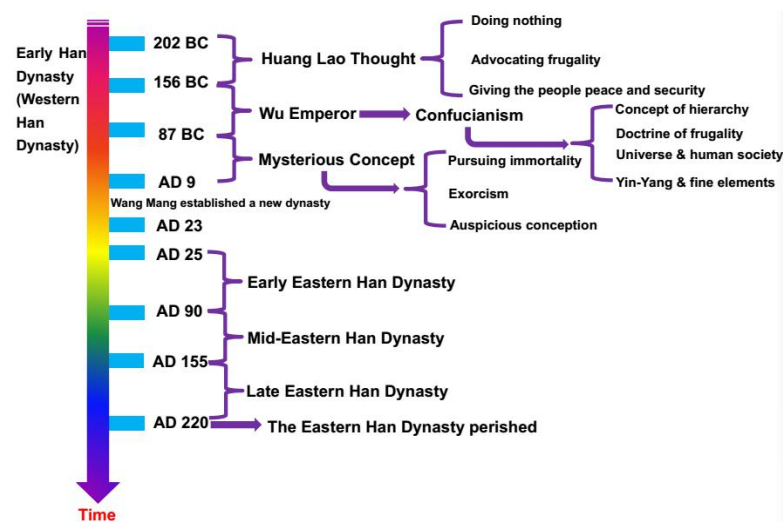


Figure 8 Historical timeline of the cultural context in the Han dynasty. Data collected from the literature (Sung et al. 2016).

The literature research revealed direct and indirect relations between the philosophical thoughts and the Han dynasty jade carving design in the specific

historical context, as well as the exact design principles and rules of jade carving in the Han dynasty. In addition, contemporary design principles, art and design theories, and design techniques were drawn upon in the research, such as chromatology, material collocation, connotative understanding (conceptual understanding) and expression (design integration), form design, symbolic design, indirect expression, metaphor and reconstruction. The literature research also explored the possibilities of combining these design techniques with jade carving design. In this research, the theory was linked to practice, and practice was guided by theory.

2.1.2 Fieldwork research

The following are the main components and objectives of the fieldwork research:

(1) *Studying Han dynasty jade carving relics in museums.* The aim was to classify the cultural relics in order to better understand the design categories and forms of the jade carving in the Han dynasty. The information collected on the design elements and the aesthetic analysis of visual symbols in Han dynasty jade carving was then applied to the subsequent creative production.

(2) *Selecting jade materials.* This activity took place in Qinghai, China's largest Hetian jade mining area. The purpose of doing fieldwork research in Qinghai was to select jade raw materials with appropriate colour and quality because the colour and texture of materials are related to the material language of the design works and the artistic information conveyed by designers.

(3) *Developing jade carving technology.* Craft and technology are the keys to the production of jade carvings. The development of jade carving technology has a very profound impact on carving design. Therefore, the fieldwork research also served as a process of learning the traditional and modern technical methods of jade carving, and analysing both the advantages and disadvantages of modern hand carving and digital technology carving. This was conducive to the selection of different materials of jade and time, choice of appropriate carving techniques to complete the work, and quality improvement of the creative productions.

2.1.2.1 Studying Han dynasty jade carving relics in museums

Fieldwork is the core method of cultural anthropology research. Anthropologists usually enter the actual society of the object of study to observe and participate in the activities so as to obtain first-hand research materials. The fieldwork that I carried out was exactly the same as anthropological fieldwork in terms of methodology, that is, I went to the place of the research object to conduct an investigation. However, the subjects were different. The objects of anthropological investigation are normally human beings, living societies and cultures. The object of my research was ancient cultural heritage – specifically, the unearthed jade artefacts.

Fieldwork was carried out along with the documentation research. The purpose of the fieldwork was to observe and collect information on Han jade form (including the formalised symbols, as well as mortuary, display and decorative jade), colour, size, function and pattern. This fieldwork also included a visit to an excavated Han dynasty site that had jade carvings. The fieldwork was conducted in museums in China, France, Italy, Egypt and Turkey where Han dynasty historical relics and archaeological materials are collected. **Table 1** lists the museums I visited for this fieldwork research.

Table 1 List of museums where the fieldwork was conducted.



	Museum	Theme area	Dynasty	Location	Visit date
1	Xuzhou museum	The Tomb of Chu Emperor	Western Han Period	China	13/11/2015
2	Hebei Provincial Museum	The Tomb of Liu Sheng (Prince of Zhongshan)	Western Han Period	China	16/11/2015
3	Hubei Provincial Museum	The Tomb of Zeng Hou Yi	The Warring States	China	23/05/2016
4	Louvre Museum	All	Comprehensive	France	02/06/2016
5	Vatican Museums	Wall painting	Comprehensive	Italy	07/06/2016
6	Nanyue King's Tomb of the Western Han	Tomb of the Nanyue King	Western Han Period	China	26/03/2017
7	Anadolu	Metal, bronze,	Comprehensive	Turkey	02/04/2017

	Medeniyetleri Muzesi	porcelain, textile, stone carving			
8	Egypt Museum	All	Comprehensive	Egypt	05/04/2017
9	Xitang Museum	Ancient jade	Comprehensive	China	02/05/2017
10	Anhui Provincial Museum	Ancient jade and jade in Han dynasty	Ancient times to Han dynasty	China	05/05/2017
11	Kunlun Jade Museum	Contemporary jade carving	Modern times	China	28/06/2017

(1) Categories of jade carving in the Han dynasty

The shapes and functions of Han jade can be broken down into four categories: ritual objects, burial pieces, ornaments, and sculptures. **Table 2** presents the historical relic objects studied in this thesis. They have been selected because they are strongly representative of Han jade culture ([X. Wang 2014](#); [Ma 2007](#)). The comprehensive classification of jade carvings is presented in Appendix A.

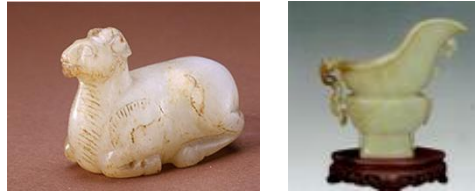
Table 2 Historical relics from the fieldwork.

Objects	Photo examples
Ritual jade	
Burial jade/ jade suit	

Jade ornaments
(X. Li 2007)



sculptures
(Yan 2002)



(2) Animal elements in Han dynasty jade carving

Whether imaginary or real, animals are a recurring decorative and symbolic element of Han dynasty jade carving. The application of animal elements as inspiration for contemporary design is the most direct way to make the past serve the present. There are various design elements of jade carving in the Han dynasty, but almost all types of Han jade designs involve animal elements (**Table 3**). Animal symbols contain a wealth of meaning in both social and religious contexts, which was in turn an important reference for my creative production design.

Table 3 Animal elements in the historical relics.

Objects	Photo examples	
Ritual jade		
Burial jade		

Jade utensil



Decorative jade



(3) Features and development of Han dynasty jade carving techniques

Carving techniques were the basis for jade carving in the Han dynasty. Han Ba Dao and You Si Mao Diao are two carving techniques that have referential significance for contemporary jade carving. Han Ba Dao is the most unique carving technique, which is the product of the burial jade culture in the Han dynasty. Its characteristic is that each line is straight and powerful, like it has been cut out with a knife. By contrast, You Si Mao Diao is a fine and clear intaglio carving technique that produces a uniform arrangement of lines.

Table 3 shows the carving form of jade carving with animal elements gradually evolving from two-dimensional carving to three-dimensional carving with the development of jade culture and carving technique. The two-dimensional carving of animal elements jade is simple in shape with fine carving lines. By contrast, the three-dimensional carving of animal elements jade has realistic modelling, and highlight the concept of “form and spirit”, especially in the eyes, chest, belly, leg and crotch, thus showing the distinctive cultural characteristics of the Han dynasty. For example, the animal’s eye socket is often carved with a slanted angle to highlight the spirit conveyed by the bulging eyes. Thus, these jade carving techniques have referential significance for both the two-dimensional carving and the three-dimensional carving with animal elements of contemporary jade carving.

2.1.2.2 Artwork study and jade materials

Following integrated consideration of the nature of the material, cost, colour, production feasibility and design conception, Hetian jade was chosen as the main material of jade study and artwork making in this thesis. The main reasons are as follows: Firstly, the nephrite of Hetian jade has strong operability, and for a jade carving novice like myself, it is easier to work with this material rather than jadeite. Secondly, Hetian jade is rich in colour and can meet the requirements of different design themes especially the persimmon elements in the theme of auspicious culture. Thirdly, Hetian jade material grade is divided into various types, and it is suitable for different projects and research budgets. Therefore, in the end, green-white jade and green jade were selected as the main materials. However, some other kinds of stones were used as well when working on other themes because of their colours.

In my fieldwork, I went to Qinghai province, the most famous jade production site in China, and collected Hetian jade systematically. The nephrite of Hetian used in this research are white jade, green-white jade, yellow jade, purple jade, ink jade, jasper, grey jade, and so on. The colours of the selected jade are extremely rich, including white, violet, green, and so on. These jade materials are categorised into four types: white jade, green jade, yellow jade and black jade. They are introduced below and in **Table 4**, as well as with more photos in Appendix A.

White jade: The colour of white jade ranges from white to green white. The name is also varied, often accompanied with figurative description; including, seasonal white, paraffin white, the whitish colour of a fish's belly, pear white, moon white, and so on. White jade is the highest grade in Hetian jade, but the size is generally small. White jade can also be subdivided by colour into mutton-fat jade (Yangzhi jade) and green-white jade.

Mutton-fat jade (Yangzhi jade): The exquisite texture of mutton-fat jade conveys a kind of feeling of softness and strength, as the "white is like mutton fat". This is the best variety of jade in the white jade category. Nowadays, Xinjiang is the only place in the world where this jade can be sourced, but the output is very low, which makes it extremely valuable.

Green white jade: This is the basic tone of white jade that faintly shows the colour green or grey. There are also colours, such as light blue, powdery cyan, or

grey-white, which belong to the transitional varieties of white jade and green jade. All these colours are prevalent in Hetian jade.

Yellow jade: Yellow jade ranges from yellowish to deep yellow, chestnut yellow, autumn sunflower yellow, sunflower yellow, egg yolk yellow, tiger skin yellow, and others.

Green jade: The colour span of green jade is from light green to dark blue. There is a wide range of colour depth: light green, deep green, blue, grey, deep grey, green, and so on. Green jade is common in Hetian.

Black jade: The colours of black jade range from ink to light black. Generally, the intensities of ink are different and the distributions of deep light are uneven on the jade body. The colours include general black, black (Ju Mo), and point black. Ju Mo refers to the black colour on black jade or white jade, and it can be used for ingenious design. In point black jade, the ink is scattered into points and this affects its use.

The raw materials for creative production were collected from Qinghai China. **Figure 9** presents some examples of jade raw materials. They are grouped by type and quality. Moreover, jade raw materials can be categorised into the mountain materials, the mountain and stream materials, and the river materials ([Springer 2009](#)).



Figure 9 Raw jade materials, Photo taken by Tian Bingrui in 2017, Qinghai province, China.

Table 4 Hetian jade materials that have been studied and used in this thesis.

Categories of Hetian Jade	Nephrite Classification	Graphical Representation
White Jade	Mutton-Fat Jade (Yangzhi jade)	The ‘white is like mutton fat’, which gives people a feeling of softness and strength. This jade is the best variety of white jade. It is only found in Xinjiang province with a very low output rate, therefore it is extremely valuable.
	Green White Jade (light blue, powdery cyan, grey-white)	Green jade is the basic tone of white jade which faintly shows the colour green or grey, very light blue, powdery cyan, or grey-white. This belongs to the transitional varieties of white jade, and is very common in Hetian jade.
Yellow Jade	Deep Yellow	Yellow jade colour varies from yellowish to deep yellow, chestnut yellow, sunflower yellow, egg yolk yellow, tiger skin yellow, and others.
	Chestnut Yellow and Sunflower Yellow	
	Egg Yolk Yellow Tiger Skin Yellow	
Green Jade	Light Green Jade Deep Green	Green jade’s colour varies from light green and deep green, to grey, deep grey and dark blue. This type of jade is common in Hetian jade.
	Grey Jade	
Black Jade	General Black Jade	Black jade’s colours vary from light to ink black. Generally, the intensity of ink is different and the distribution of deep light is uneven on the jade body. The colours include general black, black (Ju Mo), and point black. Ju Mo refers to the black colour on black jade or white jade. It can be used for ingenious design. In point black jade, the ink is scattered into points and this affects its use.
	Partly Black Jade (Ju Mo)	
	Point Black Jade	

2.1.2.3 Artwork making techniques and equipment

Working with jade is not just therapeutic, but also allows the carver to create a piece that is durable enough and unique to be passed onto many generations. These characteristics make jade truly, in the words of the Chinese: more valuable than gold. The understanding and learning of traditional jade carving techniques is helpful to create of new jade carving art, so this section of artwork making techniques listed and introduced the various basic traditional jade carving techniques, tools, their characteristics and the representative achievements of jade carving in the Han dynasty.

The artwork making techniques and equipment used in the jade carving creative production research include hand carving and machine carving. Hand carving is a traditional handmade process, while machine carving refers to a process that is based on mechanical and computer carving. Computer CNC jade carving is the most fashionable machine jade carving method at present; it applies the modern numerical control technology to the traditional carving field.

(1) Hand carving

Most gemstones are priced in terms of their carat weight. Jade, however, is unique in that it is traded by the piece. From what the ancients often said, ‘jade is not awkward, it is not a device’, so the value of a jade object depends both on the quality of the jade material and the level of the carving techniques.

Ancient jade were shaped using a cord and sand acting as an abrasive⁵ before being more precisely carved using a drill and then polished. The one of main tasks for contemporary jade craftman is perfection of traditional carving techniques based on understanding and learning the ancient traditional jade carving techniques. Various jade carving techniques, tools and their characteristics are shown in **Table 5:**

⁵ The abrasive is the intermediate between the carving tool and the jade in the process of carving jade, which is called Jie Yu Sha (解玉砂) in China. There are six different abrasives used for carving jade: Quartz, Almandine Garnet, Corundum, Carborundum, Diamond, and abrasive for polishing. Polishing, done using a combination of Carborundum, silt, water and applied to bamboo wood or leather tools.

Table 5 Summary of jade-working techniques, tools and their characteristics (Sax 2004).

Technique	Characteristics of tool	Characteristics of features and figure references		
		Shape in plan view	Longitudinal profile of depth on artefact	Surface texture
Drilling (Figure. 10 a, 10. b.)				
Rotary technique, the tool rotating about an axis that is essentially perpendicular to the surface being worked	End or point of a solid tool-head, usually used with abrasive. It may be variously shaped. Burrs have rounded or spherical sides.	Circular	Conical to straight-sided	Circular grooves
	Tubular or hollow tool-head	Annual or circular	Straight-sided to slightly tapered	Circular grooves
Wheel-cutting and circular sawing				
Rotary technique, the tool rotating about an axis that is essentially parallel to the surface being worked	In wheel-cutting, the rim of a disc is used, usually with abrasive, for secondary shaping and incising. The diameter and thickness of tools may vary; the sides of tools, e.g. a spherical burr, may also be used.	Linear or curved	Linear to pronounced concave curvature (occasionally convex)	Parallel longitudinal grooves, usually faint

	In circular sawing, the rim of a circular blade, which is usually thin relative to its diameter, is used, for the primary shaping of jade blocks.	Curved or linear marks, related to the profile of depth along the bottom of a cut, and curved grooves on the side of a cut may survive; however, the characteristics are often modified or erased by subsequent working.		
Sawing (including filling and rasping) (Figure. 10 c.)				
Hand-held tool, moved backwards and forwards	Tools with a long straight rigid working edge (including metal wire strung rigidly between the ends of a bow), used for primary and secondary shaping. Files or small saws are also useful for incising edges or convex surfaces. Rasps contain sharp inclusions; other tools are charged with abrasive.	Linear	Linear or convex	Parallel longitudinal grooves, may be pronounced
		Characteristics produced during primary shaping, i.e. linear to convex marks, related to the profile of depth along the bottom of a cut, and linear grooves from the side of a cut, may survive; however, they are often modified or erased by subsequent working.		
Flexible string sawing (Figure. 10 d.)				
Hand-held tool, moved	Tools made of flexible material such as hemp	Linear	Convex	Smooth or faint longitudinal

backwards and forwards	rope, leather or sinew (or a flexible length of wire) and charged with abrasive.			grooves
Riffling				
Hand-held tool, moved backwards and forwards	Tool has a short working edge, which may be specially shaped; used to work flattish surfaces away from edges.	Linear or curved	Usually linear to concave	Faint to pronounced parallel longitudinal grooves, diverging from ends of features.
Point (or blade) abrasion				
Hand-held tool, drawn in pencil action	Tool with a very hard and tough point or blade like a burin or a knife. Used without abrasive.	Narrow	Regular or irregular	Relatively smooth and ungrooved

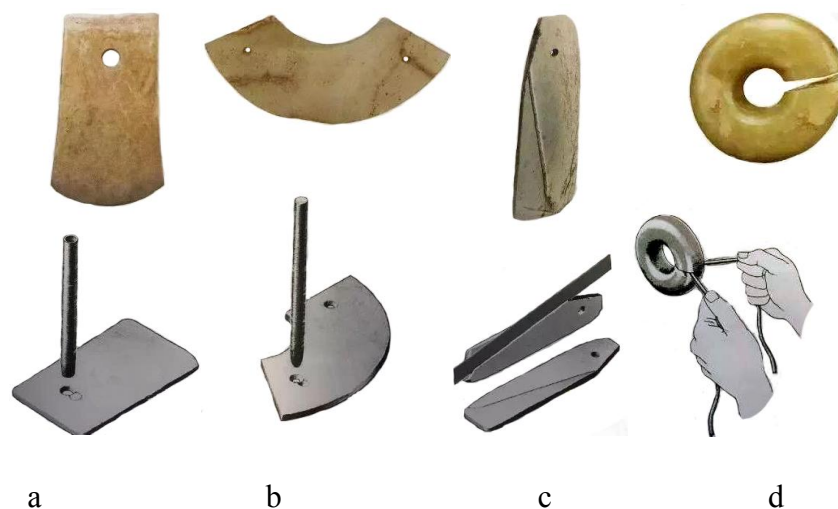



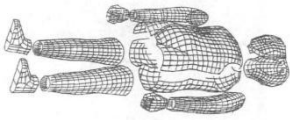




Figure 10 Ancient jade carving techniques and tools.

Jade carving techniques are mainly divided into two categories: rotary techniques and non-rotary techniques. The representative achievements of jade carving in Han dynasty are shown in **Table 6**:

Table 6 The representative achievements of jade carving in Han dynasty.

Technique	Type of jade carving technique	Figure references	Characteristics of jade carving technique
Rotary techniques	Han Ba Dao		The characteristic of Han Ba Dao is that each line is straight and powerful, like it has been cut out with a knife.
	You Si Mao Diao		The You Si Mao Diao carved lines as fine as human and animal hair.
Non-rotary techniques	Precious metals inlaid jade		Among the precious metals inlaid jade in Han dynasty, the most common ones are the copper inlaid jade sword and the iron inlaid jade sword.
	Zhui Lian Technique		The process of assembling the parts of jade pieces is called ZhuiLian Technique.

	Round carving		The primary process of round carving based on materials selection. The composition design must be viewed from all angles to examine the spatial changes of the form and structure
Comprehensive process	Hollow out engraving skill		Similar to the round carving, but the hollow out sculpture only needs to be engraved on the front and back.

An understanding of the origins of jade carving techniques provides the historical commentary and referential materials necessary for innovating contemporary jade carving through cultural inheritance. It opens up possibilities for excavating the corresponding forms of design work according to traditional philosophical thoughts. At the same time, it would be helpful for designers to refine these traditional design techniques, ideas and rules for contemporary jade carving.

The modern hand carving used in jade carving is not equivalent to the traditional understanding of ‘manual’ production because it uses a high-speed motor to turn the diamond-head burr to cut the jade. Therefore, the modern hand carving of jade is defined in a broad sense; that is, the production process of jade carving that largely relies on manual production is called hand carving. Hand carving has both advantages and disadvantages, which are described in **Table 7**:

Table 7 Advantages and disadvantages of hand carving.

Advantages	Disadvantage
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a. High flexibility in repairing or hiding dirt, cracks and grain on the material.	a. Time-consuming and laborious.
b. Smooth, vivid and exquisite carving lines.	b. The surface polishing process is always associated with significant roughness on the edge.
c. Valuable uniqueness; no two identical works exist.	
d. High controllability in carving.	C. Quality control.

Overall, hand carving can be used to produce different themes according to the characteristics of the material, with different carving methods and carving skills to avoid cracks and imperfections. Moreover, hand carving can be used for highlighting the prominent or special parts, for general expression, and for making fluent carving lines. In addition, hand carving creates uniqueness. A perfect jade carving work is excellent in every aspect encompassing the technology used for processing it as well as the cultural connotations and characteristics of the material. Finally, hand carving enables a good jade artisan to create spiritual works more freely.

(2) Machine carving



Machine carving, also known as computer CNC jade carving, is the most fashionable jade carving method used at present. In order to save manufacturing costs, jade merchants make works by using these machines. Numerous jade merchants have begun to adopt the computer CNC carving techniques to jade manufacturing. With the premise of guaranteeing the design and carving effect, computer CNC carving greatly improves the efficiency of jade carving. The advantages and disadvantages of computer CNC jade carving are outlined in **Table 8**; while the machines that have been used in this research are listed in **Table 9**:


Table 8 Advantages and disadvantages of CNC machine carving.

Advantages	Disadvantages
a. Low labour cost and time saving. It allows	a. Produce a lot of the same

for quick engraving and mass production.	pieces which potentially reduces their value.
b. High precision of polishing.	
c. Applicable for embossed carving production.	b. Stiff appearance because of no hand carving knife work.
d. The scope of engraving can be applied to various materials that can be carved by the needle.	c. Limited themes and forms.

Table 9 Machine carving equipment that have been used in this research.

Categories	Equipment	Equipment Picture	Efficiency	Features	Manufacture
Mechanical Carving Machine	Crane		Manual operation plus electronic control. Lower rotation speed than the horizontal machine.	Suitable for small objects and fine detail carving of jade and metal.	Feiliwang KYG0022
	High-Speed Jade Carving Machine (Horizontal Machine)		Manual operation plus electronic control. Higher rotation speed than the crane. This is also the most commonly used carving machine at present.	Suitable for small to large-sized jade objects.	HongCheng YD-1002

<p>Computer Jade Carving Equipment</p>	<p>Numerical Control Equipment</p>		<p>Electronic control. It has the fastest operating speed among all kinds of jade carving equipment.</p>	<p>Suitable for surface patterning, fine detail carving, and shaping of any materials that can be cut by the machine needle.</p>	<p>Hongcheng HC-4040</p>
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In summary, both the hand carving and computer CNC carving methods have their particular advantages and disadvantages. Hand carving is useful in superfine artistic production and is still used by jade carving artists. The computer CNC carving is helpful when precise digital control of the surface carving is required, and it is an indispensable tool in the modern jade design field. Considering that the creative production designs in this research vary from small to large samples, and from sketchy shaping to fine carving, both hand carving and computer CNC carving were used to achieve the desired artistic effects. There was flexibility in choosing the most appropriate carving method according to the design themes and various materials. This flexibility also effectively helped to save time and cost.

2.2 Creative production

2.2.1 Design direction decision

Guided by the knowledge gained from the literature review and fieldwork, I engaged in creative production that aimed to explore the inheritance of traditional jade culture and its combination with the contemporary aesthetic. The creative production focuses on the design and implementation of independent practical artworks. The creation approach was divided into the following three main steps according to creative themes, materials, craft, aesthetics and culture.

(1) The combination of the traditional theme and contemporary aesthetic. The aim of in this step was to re-visit some Han jade designs and to make new designs accordingly.

(2) The combination of the traditional theme and contemporary techniques, such as the combination of materials and the combination of new jade carving techniques. New visual characteristics were combined with different materials, traditional theme, and the traditionally hand-made jade carving was rendered by the traditional horizontal machine and CNC computer carving.

(3) Cultural refinement. This step involved finding the point of connection between traditional philosophical thought and contemporary culture. It was explored to expand the influence and acceptance of jade works on the basis of preserving Chinese jade culture.

2.2.2 Summary and creative production scope

Table 10 briefly records and summarises the influence of the four aspects of philosophy, design, materials and techniques on the design of jade in Han dynasty, and the details of the jade that can be used to the present. These aspects will be described, discussed and analysed in detail in chapters 3 to 5. This summary lays the foundation for the design of the final creative production.

Table 10 Summary of literature and fieldwork research.

Categories	Details		Impact on jade carving design
Philosophy	Huang Lao Taoist thought	'Unity of man and nature'	Conforming to nature: Design based on raw material form, colour and harmonious aesthetic.
			Diverse design themes
		'Form and spirit', Yin-Yang and Five elements	Conveying spirit through form on jade carving.
		'Advocating frugality'	Simple shape, with either less or no pattern, that aims to pursue the use value of goods.
	Confucian ideas	Hierarchical thought	Jade Pei ornament set and ritual jade.
		'Doctrine of the Mean'	Symmetrical form.
	Superstition concepts	Pursuing immortality	Burial jade.
Divination		The vivid artistic form, ideal type and	

		thought	auspicious characteristics.
Design	Element		Real-life animal images served as the main design elements and inspiration sources in Han dynasty jade carving.
	Form		Minimalism; highlight spirit.
	Function		Sacrifice, burial, wearing and decoration.
Material	Single material		Consideration factors: lustre, colour, texture and sound
	Various material combinations		Jade and knots, metals, gemstones, wood.
Techniques	Handmade		Han Ba Dao
			You Si Mao Diao
	High-Speed Jade Carving Machine		Suitable for small to large-sized jade object
	Numerical Control Equipment		Suitable for surface patterning, fine detail carving

Following **Table 10**, the creative production method was divided into five steps to investigate how the design method extracted from the design of jade carving in the Han dynasty can be applied to contemporary jade carving design. The five steps are as follows:

- (1) Create new designs inspired by Han dynasty jade carving;
- (2) Select continuing contemporary design styles that are under the influence of Han dynasty philosophies, including traditional animal elements;
- (3) Select the auspicious theme and complete the jewellery creation and production, including typical subjects such as the persimmon and vases;

(4) Provide discussion on the contemporary design perspective that relates with the Han dynasty jade carving art form;

(5) Find new trends for contemporary jade carving design.

Therefore, the creative production approach is a visualised method to reveal the contribution of the Han jade carving by creating contemporary art pieces. The wide acceptance of the materials in modern jewellery design is apparently increasing. Appropriate usage of metal materials can be an innovative way forward for jade carving design, even though there were not many metal designs in the early jade market.

Chapter 3 Taoism, Confucianism and Han jade

3.1 Overview

In the Han dynasty context, the Taoist philosophy of Huang Lao gradually became the mainstream philosophy which, in turn, had an impact on Han dynasty jade carving design, whereby the concepts of the ‘unity of man and nature’ and ‘form and spirit’ were the most far-reaching Taoist philosophical influences on Han dynasty jade carving. Moreover, under the influence of Taoism, the development of jade carving had always been accomplished with a strong philosophical underpinning, specifically the dialectical thought of the unity of heaven and man, and the theory of the five elements of Yin and Yang.

The hierarchical conception, jade virtues doctrine, and ‘Doctrine of the Mean’ proposed by Confucianism also provided theoretical support for the continuous development of jade culture. By analysing the influence of Confucianism on jade carving in the Han dynasty, the origins of jade carving design can be traced and the design principles of jade carving can be understood. This chapter explores the relationship between Taoist and Confucian philosophies, Han dynasty jade culture and Han dynasty jade carving design. This study provides a theoretical basis for the continuation and development of contemporary jade carving design with Chinese cultural connotations. The essence of this study supports contemporary jade carving’s innovation in maintaining the cultural inheritance.

3.2 Taoism

Taoism, Confucianism and Buddhism are considered the ‘three pillars’ of ancient Chinese society. Taoism is a catchall system that encompasses various ancient practices and schools of thought ignored or rejected by Confucianism. Apart from the purely philosophical component based on the books of Lao-tzy and Chuang-tzu, it has components of shamanism, magic, alchemy, medicine, various primitive cults, and organized religion ([Jiang 2008](#)). Taoism does not have strong political characteristics compared to ritual and music in classical Confucian thought ([Lai 2008](#)). The biggest difference between Taoism and Buddhism is that Taoism pays close attention to the

private 'life' than to societal life and emphasises the pursuit of life and faith, whereas Buddhism focuses on Nirvana and the karma after death ([Smart 1989](#)). Taoists believe that the individual is precious, not in its perfect virtue, but because every individual is a unique life. Taoism realises that righteous specifications lead to the assimilation of personality, so Taoism focuses on the cultivation of personal character and opposes the imposition of righteousness in changing individual character. This, along with associated values about the individual, is proof of the positive attitude of Taoism.

Taoists have unique understandings of jade that is mainly focused on the mystery of jade (the function of enlightenment in resurrecting the dead) and its utility (the function of prolonging life and expelling evil influences and invoking blessings). Firstly, Taoists believe that jade is the essence of nature which can be invested with a variety of supernatural beliefs ([Olson 1992](#)). Through the beautiful divining jade people received wisdom from spirits, engaging dialogues with heaven and earth. Secondly, due to Chinese Taoism emphasises the concept of 'rebirth' and that 'life is to be valued' ([Weisheit and Morn 2015](#)), so Taoists believe that jade has psychic energy which can help people soar to heaven. Thirdly, Taoist association of jade with the body incorruptible that led to the professed use of jade as an elixir ([Fong, W and Watt 1996](#)). Lastly, Taoists believe that jade is a symbol of auspiciousness, which can expel evil influences and invoke blessings. This collective understanding of jade from Taoism gradually made the design and development of jade more secular. Once traditional Chinese jade worship was absorbed by Taoist thought, the religious explanation of Han jade was clearly revealed. Put simply, jade became synonymous with the Taoist belief that 'life is to be valued' and became part of the Taoist regimen ([F. Guo 2004](#)).

The relationship between Taoism and jade carving art has a long history. The many traditions within the Taoist framework gives priests the tools to carry out the conventional tasks of any religion: worship, healing, exorcism, intercession, purification, divination and so on. Thus, the decorative pattern of Chinese jade reached a pinnacle in the mystification style of decorative arts, following the Taoist pursuit of religiosity and deities. This Han jade decoration artistic style is reflected in the frequent use of the pattern of animal totems, such as the dragon, phoenix and Chi tiger.

3.2.1 Huang Lao Taoism thought on jade

Huang-Lao Taoist thought - a political philosophy guided by Taoist principles; a mode of thought rich in its theoretical aspects yet also highly practical. Huang-Lao Taoist thought presented a holistic approach; it grafted aspects from the school of names and Legalism onto the main trunk of Taoism, with the School of Yin-Yang providing structural elements (Cao 2017). The influence of Huang Lao Taoism thought have far-reaching effects on social culture and art that cannot be overlooked (Abuaku et al. 2010). The following sections introduce that how the typical Huang Lao Taoism thoughts in the Taoist system to impact on jade carving design.

3.2.1.1 “Unity of human and nature”

“The Tao, or the Way, is the approach in accord with the flow of nature. The basic idea of the Taoists is to enable people to realize that, since human life is really only a small part of a larger process of nature, the human life which makes sense are those which are in harmony with nature (Su 2019)”. Huang Lao thought emphasised the ‘unity of human and nature’ - a concept with ancient roots in Chinese thought (Chen and Wu 2009). Taoism unified people, heaven and earth into the same universe, which is consistent with the unity relationship among people-object-environment (Dellios 2001). The symbiotic interplay between human beings and natural objects are the status of ‘there is still a bit of you being in me and a bit of I being in you’ (Figure 11).



Figure 11 Taoist meditation and the ‘unity of human and nature’.

In the design philosophy of ancient China, the dialectical relationship between nature and human is the logical starting point of the ancient design value system. When it is embodied in the art of jade carving, fitting the design to the material and its inherent

property is the guiding principle. In short, the principle means that the natural hues or forms of the material in use induce the theme and designs of the work to be rendered. This kind of works are considered very ‘smart’ and called ‘smart carvings’. Meanwhile, the concept of the ‘unity of human and nature’ runs through jade carving aesthetic culture. The ‘cute use of tints’ makes precisely the best of colour variations and distribution in a given piece of jade the medium, adapting the shape and composition accordingly, so as to deliver an integrated visual message in the final work of art. The good smart carving work embodies a perfect three-in-one union of intrinsic nature, human creativity, and symbolic significance, indeed a paramount beauty illustrating the Oneness of Nature and Human.

In conclusion, Taoism emphasises the harmony of human and nature, and requires people to avoid contradiction and struggle with the nature of heaven and earth. The unity of nature and human thought has been regarded ever since as the end-result of thought in Chinese traditional culture as a whole (Qian 1998). It is representative of the main tone of Chinese ancient philosophical thought (Ji 1996). It not only affected ancient Chinese politics and ethics, but also deeply influenced the construction and development of traditional aesthetic culture and design.

3.2.1.2 ‘Unification of form and spirit’

There are many outstanding artworks that convey the spirit through the form in the Han dynasty. Jade carving designers believe that this kind of creation idea and the Huang Lao thought of ‘conveying spirit through form’ are inseparable (Z. Zhao 2007). From a philosophical ontological level, this illustrates the fundamental law of all things and lives, that their relationship with the spirit is one of mutual interdependence. Thus, on the basis of Huang Lao thought and Taoism, a unique art style was created in the Han dynasty via the concept of ‘form and spirit’. People not only became aware of the combination of shape and spirit during the process of designing, but also paid great attention to the spirit depictions of objects. This is a salient feature of Han dynasty jade carving.

The relationship between form and spirit is the main issue in Han dynasty art design research. There are two ways to describe the relationship between form and spirit in the art. First, “spirit is more important than form, so the spirit should control the form” recorded by the ancient book *Huai Nan Zi: Quan Yan Xun*. Second, form and spirit are

indivisible. They are linked to each other, and function as the opposite and contradiction to each other. If there is no spirit depicted in the artwork, any good work of art will lose its soul. Correspondingly, too much emphasis on depicting the form will result in a lack of spirit ([Z. Zhao 2007](#)). Consequently, ‘energy, spirit and form’ are important factors that can be determined the life of any artwork. The form is clear to see, but the energy and spirit refer to the connotations of the art piece.

The concept of form and spirit embodied in the Han dynasty jade carving in two aspects: inspired by nature and spirit transmission and meaning conveyance.

(1) Inspired by nature

In 1986, an exquisite jade bear was unearthed at the Xuzhou Beidongshan tomb. This bear is carved in the round from greyish jade. Recumbent on its four limbs and staring directly ahead, the bear is finely articulated, with a short nose and short upward-pointing ears. The jade bear is portrayed with a collar and hair detailed with short incised lines. The designer had grasped the overall form and an honest expression accurately. Even though he had only used relatively little carving, he nonetheless successfully conveyed the lively and vivid characterisation of this bear (**Figure 12**). An artist who is designing to focus on natural characteristics is not depicting the nature of the external forms but realising the natural spirit with the natural material in order to show the artist’s own spirit, ideal, emotions and feelings. In other words, it is a process to spiritualise the materials ([Zong 1981](#)). This implementation is an accurate portrayal of “spirit” in accordance with nature.



Figure 12 Han jade bear, c. 200 CE, China. Image reprinted from Chen and Wu (2009).

(2) Spirit transmission and meaning conveyance

Han dynasty jade carving aesthetics focus on expressing the spirit, either by depicting people or animals. The interdependence of form and spirit determines the manner and form of how the artworks should be interpreted. The human spirit is regarded as more important than the body, shape and outward expression ([Z. Zhao 2007](#); [Kern 2010](#); [Robins 2017](#)). As an analogy, clusters of leaf veins appear to have no shape, but the natural piling up of 3,000 leaf veins forms a shape. It is intangible but also tangible ([Chan 2017](#)). Taoists put forward a kind of aesthetic concept, which aimed at promoting the beauty of nature. Grasping the essence of things to emphasise the most beautiful part was a unique design aesthetic pursuit in the Han dynasty. A good example of this is the jade bull of the Han dynasty unearthed in Douma village in the Shanxi province (**Figure 13**). The bull is made of brown jade with distorted and extremely vivid modelling. Overall, this jade bull is a dynamic object. Its left front leg is attached to the abdomen, while the turned back body is only supported by three feet, emphasising the strength of the muscular bull. The dynamic shape is attractive, showing the bull's angry eyes and a slightly opened mouth. Through this precise characterisation of the bull, one can easily feel that it is an obstinate fighter.



Figure 13 Han jade bull, c. 200 BCE – 200 CE, Shanxi province, China (Aurora Museum 2014).

Han dynasty artists and philosophers thoroughly explored the concept of ‘spirit and form’, and its wide practical significance. “Not only does it create a path to the innovation of the Han dynasty art design, but also laid the metaphysics in the Wei Jin

dynasties. It laid a good foundation for design methods to fuse the form, spirit, energy in an art piece ([Z. Zhao 2007, p. 16](#)). Therefore, the concept of ‘form and spirit’ not only helps people today to understand the essence of Han dynasty art and to consider mining this Han art design idea, but also to scrutinise that traditional culture, and the national heritage of art and design.

3.2.1.3 Yin-Yang and the Five Elements

The Yin-Yang and Five Elements theory was produced and formed gradually in ancient art design activities. The Yin-Yang and Five Elements theory is an original dialectical materialist thought ([Strickmann 2009](#)). On the one hand, the concept of physical diversity and connection in the Yin-Yang and Five Elements theory helped to promote the rapid development of science, technology and design. On the other hand, the theory also advocated treating problems by using a connective viewpoint. Ying-Yang theory is suitable for the application of the subjective initiative, which coincides with creative design. It has become a very important way of design thinking, and was a core element in Han dynasty design. It can be said that the Yin-Yang and Five Elements theory in ancient China created a totally new design philosophy.

In Han dynasty jade carving design, craftsmen paid attention to the harmony of Yin and Yang, whereby the so-called purpose of Yin and Yang was to coexist with each other. The relationship between Yin and Yang reflects oppositions in the universe, that is, all things have two sides. This concept also extended to jade carving design in the form of principles such as complication and simplicity, coarse and delicate, and dynamic and static. A distinctive artistic style of Han dynasty jade carving is its focus on dynamism, such as designs encapsulating flowing clouds, wild running rivers, dynamic animals and birds, and a storyteller, singer, dancer or horse rider. Han dynasty jade carving designers deliberately sought a moment of movement from dynamic speed and momentum to show the force of movement. In addition, Han dynasty jade carving art emphasised the performance of the ‘image type’, which had a stronger focus on the image appearance and dynamism, but ignored other details. The most prominent representative is the jade dancer. The form of the jade dancer is more planar with intaglio lines. A large number of jade dancer artworks show their rich dynamic characters, but do not get bogged down by details. They constitute a form of opposition and unity by the curve and linear elements in

the modelling. In terms of image processing, Han dynasty arts highlight the point of change, probably in pursuit of dynamism or achieving the full composition. In short, the Han dynasty jade carving artisans often designed by means of exaggerating and deforming the jade carving image. As a result, jade pieces may seem clumsy and childish at first glance, but they also show great simplicity. This might be one of the most charming aspects of artistic design in Han dynasty jade carving.

3.2.1.4 Wuwei-'Doing nothing'

Early Taoists promoted a philosophy of government by nonaction (Wuwei). This meant instead taking no human action contrary to the natural fluctuation of the cosmic Way (Tao) ([Stefon 2011](#)). Confucians want us to change the world and be proactive, that is, to act intentionally and deliberately to set things straight. Confucius admonishes his disciples to make something out of themselves, to cultivate themselves by carving themselves like fine jade. However, Taoist texts admonish the perfected person to be like uncarved stone, a newborn infant, or flowing water ([Littlejohn 2020](#)).

Philosopher Alan Watts believed that Wu Wei can best be described as “Not-forcing ([Watts 2000](#))”. This view of ‘not-forcing’ is also reflected in the jade carving: the Taoists promoted uncarved and less carved to keep the the natural shape and colour of stones. The wuwei point of view also gave rise to the simple form of jade carving in the Han dynasty. While doing nothing seems like a cop out or just plain lazy, it is still a kind of action. Lao Tzu said, “nature does not hurry, but everything is accomplished”. With wuwei craftman carve jade without effort or struggle but shows the natural beauty of the stone. Thus, Taoism is really simple in some ways. It is about letting go ([Kassulke 2016](#)).

3.2.2 Impact of Taoism on jade design

Advocating nature and ‘conforming to nature’ is at the core of Taoist craft thought. Under the influence of Taoist philosophy, Han dynasty jade carvings changed the rigour and rationality style, and created various artistic images that were full of passion. The concept of the ‘unity of man and nature’, ‘form and spirit’, and ‘doing nothing’ are the main influential factors of Taoism on the design of jade carving in the Han dynasty.

(1) The influence of the ‘unity of man and nature’ on the diversification of design themes, elements and forms of jade carving in the Han dynasty

Generally speaking, the ‘unity of man and nature’ idea shaped both the social thinking and the design of jade in the Han dynasty. With the infiltration of this concept, Han dynasty art developed beyond reality and rose to the ultimate infinite level of the universe. Han art enriches this connotation, and its theme is represented as reaching back from the kingdom of heaven to the earth. Although these artistic images refer to the abstract realm, they ultimately relate to the idea of the unity of nature and humanity. The jade carving design theme consequently became broadened with the inclusion of the sky, stars, immortality, beasts, and hunting and other human activities. The universal concept of the ‘unity of man and nature’ resulted in Han dynasty art becoming full of combinations of artistic approaches such as realism with romanticism, which is an artistically vivid style with grand characteristics and an artistic language that is more concise in order to show the vigorous vitality of art. Thus, the Western Han dynasty witnessed many peculiar modelling forms, such as presenting the human face on the body of an animal or beast with wings. A special case of these are the images of the Bixie and Pegasus (Tianma), beasts that stem from nature, but are not of the real world. The emergence of these new forms of jade carving design was closely related to the thoughts and beliefs of the society at that time.

The design elements of jade carving in the Han dynasty have semiotic significance. Under the influence of the concept of the ‘unity of man and nature’, these animal images still have corresponding realistic references, although their forms are different. Moreover, with the addition of various magical powers attached by people, all of these images are more abstract and are grafted composites. For example, the dragon is a combination of a variety of animals. Nevertheless, most of these design elements still have indicative symbolic value ([P. Zhang 2011](#)). Behind this kind of design thinking is the apparent understanding that human beings could not completely dominate nature. In order to create the connection between human and nature, the design pattern of the totem type came into being, and accordingly, new animals with special abilities were designed and combined together with the previous designs by jade carvers. These new animals were divine animals that had the ability to reach heaven and earth. People in the Han dynasty offered prayers and sacrifices with the help of these divine animals (for example, when praying for rain, fighting floods, and asking for blessings). Therefore, it can be said that these animals created by people’s imaginations have resulted in the production of new

types of images and symbols. Over the course of successive dynasties these patterns have been handed down to the current Chinese culture, and they have become rich with the symbolic meaning. Under the influence of Taoist romantic thinking, jade carving in Han dynasty thereby created a specific design template that now provides a reference for contemporary jade carving.

The jade Bi and jade Cong are the perfect examples of the unity of nature and human in jade (**Figure 14**). Ancient people thought that heaven is round, so the form of the jade Bi is round; and they thought the earth is square, so the shape of the jade Cong is a cubic shape. The jade Cong is a flat, short, square cylinder with a hole in the centre of the Cong. Looking down at both ends up and down, it is as symmetrical as the jade Bi. Each corner has a simplified pattern. For example, the four cylinders have the solar deity patterns in the upper section, the lunar deity and solar deity patterns in the middle, and the lunar deity patterns at the bottom. The design partitions heaven and earth, Yin and Yang, where the lunar deity is the symbol of Yin and the solar deity is the symbol of Yang. This design shows the interchangeable characteristics of these concepts, and is an embodiment of the ancient Chinese dialectical philosophy of nature and environment. It shows the unity of nature and humanity. Bi and Cong are the carriers of this abstract concept. Regardless of whether they are symbolising heaven and earth or Yin and Yang, their external forms and internal meanings have become a conventional composition for these relations. They are typical symbols created under the concept of the “unity of man and nature”.



Figure 14 Ritual jade - jade Bi (Left) and jade Cong (Right).

Pursuing optimal equilibrium and harmony between human and nature has always been a key concept in Chinese aesthetics. Jade carving design is a creative process that

combines humans and nature, especially smart carving. Seeking the balance of design, creativity, materials and its inherent property is the standard to evaluate a good jade carving work. Chinese jade carving design not only expresses the artists' own creative ideas and personal spirit of truth, but also explores the cultural spirit given by jade in the creation process and shows its strong vitality of truth. Consequently, the aim of using jade is to find beauty, reproduce beauty, and create beauty to achieve the aesthetic standard of the unity of nature and human.

(2) Focus on 'form and spirit' and dialectical thoughts

The Han dynasty jade carving is the representative of the unity of form and spirit. 'Inspired by nature' and 'spirit transmission and meaning conveyance' are the two ways to represent the unity of form and spirit by Han dynasty jade carving. Han dynasty jade carving design demonstrated its characteristic combination of realism and romanticism from the spirit, the form or the expressive techniques. Real-life animal images served as the main design elements and sources of inspiration in Han dynasty jade carving. Handicraft is highlighted for the form and spirit of human and animal modelling. In other words, the artistically vivid character is an outstanding characteristic of Han dynasty jade carving.

Lao tzu proposed that "When people see some things as beautiful, other things become ugly. When people see some things as good, other things become bad. Being and non-being create each other ([Stefon 2011](#))". The philosophical concept of Yin-Yang and the Five Elements from Taoism came up with the dialectical point of view that provides multi-angled, multi-analytical and multi-integrated artistic guidance for jade carving design.

(3) The change in the concept of decoration on jade carving in the Han dynasty

The simplicity of the design and decoration on jade carvings in the Han dynasty is basically the result of the need to restore the economy and the policy of 'doing nothing'. The early Han rulers chose Huang Lao thought and Taoism as the mainstream ideas of governance, and the main reasons were because Huang Lao facilitated the policy of 'doing nothing', 'advocating frugality' and 'giving the people peace and security', which conformed to the social background at that time ([Ott 2013](#)). This had significant implications for the implementation of Huang Lao ideology in Han art design.

Firstly, there was the design guidance in the form of the laissez-faire principle and following the old rules. ‘Carry on as before’ refers to following natural law according to the inherent requirement of Taoism ([LaFargue 2000](#)). It is a means of following the laissez-faire principle. The concept of ‘giving the people peace and security’ was an agricultural policy, but at the same time it encouraged the development of industry and commerce while advocating thrift in personal life ([Sichinz 1996](#)). Because of this, the early Han jade carving shows a simple shape, with either limited or no pattern at all, which aims to fully exploit the value of materials.

Secondly, the concept of ‘advocating frugality’ was expressed in the art design of the early Han period. The early Han rulers’ choice of Huang Lao ideology as a policy was due to the fact that Huang Lao thought advocated living like a saint, that is, someone who practised a life of morality, and who was very frugal in every aspect of daily life so as to practice righteousness ([Chilton 2006](#)) and oppose extravagance and waste.

It can be concluded that Han dynasty art design adhered to Taoism, which subscribes to the ultimate universe idea, and the ‘form and spirit’ concept. Following the concept of the ‘unity of nature and human’, Han jade carving design created new themes, elements and forms, which promoted the development of jade carving in the Han dynasty. For the purpose of highlighting form and spirit, the artists sometimes even reduced or abandoned shape in their endeavour to precisely describe the spirit in the art design. Nevertheless, the development of the handicraft industry was restricted under the Han dynasty political system, which was focused on providing the people with peace and security. Consequently, the development of jade carving was very much limited in the early Han dynasty. Despite the limitations in this context, this new artistic style, namely the simple form of jade carving design, came into being.

3.3 Confucianism

Confucianism established the basic framework of the Chinese culture of benevolence ([Kuiper 2011](#)). The concept of benevolence had appeared as early as the Shang and Zhou dynasties and belonged to the category of ethics at that time ([Wu 1982](#)). However, Confucius proceeded to advance the theoretical and systematic construction of the concept of benevolence, and he gradually established the theory of benevolence.

Benevolence means to love others, which is an important idea in Confucian ethics. The doctrine of benevolence includes six parts, including respect, tolerance, honour, sagaciousness, loyalty and filial piety. Confucius' aim in establishing the doctrine of benevolence in the Spring and Autumn Period was to restore the patriarchal order of the Western Zhou dynasty when, in his time, the "rites collapsed and music disappeared" ([C. Tan 2015](#)). Ritual refers to the ethics, ritual doctrine and customs that have been passed down from the Western Zhou dynasty. Confucianism advocates that 'self-discipline fulfils the rites' and 'directs kernel into ritual'. This indicates that ritual is the major form of benevolence, and moral education ranks behind benevolence ([C. Tan 2015](#)). Confucian design ideology is based on the basic concept of benevolence. According to this ideology, chimes, tripods, jade, silks and other ritual objects had to reflect the patriarchal hierarchy, which would enable and achieve the social pecking order of harmonious society.

With the development of the Confucianism, it becomes gradually politicised. At the same time, Confucius also established social ideology on this basis. There are three aspects to this social ideology: promoting Confucian ethics laws; bringing the theocracy, monarchy and patriarchal power together to form the feudal ethics system of the three cardinal guides and the five constant virtues; and emphasising hierarchical order and Confucian education. The resurgence of Confucianism affected all aspects of the society; the art design field was no exception.

Han dynasty Confucianism not only inherited pre-Qin Confucian benevolence thought but also introduced it into the moral system. It also continued the pre-Qin 'grade' concept and put it into the systemic level. The ideas of the 'grade' was reflected in the privileging of seniority in the social order: rulers over subjects, and parents over children ([Hallpike 2004](#)). This grade concept is reflected at all levels of society. For example, from the emperor's to the civilian's were strictly coded in hierarchical terms and could not be overridden, so as to show the superiority of the noble and the lowness of the base ([J. Tan 2007](#)). There were strict specifications on the type of clothing materials, patterns and accessories, which were closely connected with order, morality and dignity. Clothes for particular identities had particular colours, decorative patterns, designs and clothing styles, and could not be arbitrarily abrogated. Moreover, the ancient Chinese had designed a set of complete and systematic hierarchies to reflect interpersonal relationships, which shows the visualisation and standardisation of the etiquette system

([Ames 2010](#)). This strict hierarchy was also embodied in the design of tombs and burial objects, as well as seal designs and logo designs for the army. This hierarchy was also directly or indirectly reflected in the social system, class relations, social economy and ideology, so the Confucian hierarchical culture was the epitome of the etiquette system and social order at this time ([F. Guo 2004](#)).

3.3.1 Confucian thought

The superstitious belief in the ‘spiritual nature’ of beautiful jade held by early people was gradually moralised under the influence of humanism and Confucianism as society advanced. The influence of Confucianism on jade carving design has resulted in the latter’s strong Chinese design characteristics. Three Confucian thoughts were deeply merged with Han jade carving design. They are introduced below.

3.3.1.1 ‘Jade metaphor in the virtue of the gentlemen’

In the words of the wise Confucius: “a gentleman’s virtue is compared to jade, as it is gentle and beneficent, which shows that a gentleman is the model for appreciating the human character” ([Teon 2016](#)). Confucianism used jade as a standard to evaluate gentlemen. Gentlemen had to wear jade to show their virtue if they do not have any compelling reason. It was also accepted in the Eastern Han dynasty that only beautiful rocks with the five virtues⁶ (benevolence, rectitude, good manners, wisdom, and honesty) can be called jade ([Liao 2012](#)). At that time, beauty and virtue were connected. Jade was eventually defined as a symbol of virtue when the jade culture in the Eastern Han dynasty finally became mature enough. The physical nature of jade became linked with people’s virtue, character, spirit and destiny. Confucianism guided the gentleman’s moral accomplishment, standardised his words and deeds, and constrained his behaviour through the concept of jade virtue. Jade had become a moral etiquette measurement tool of benevolence, righteousness and loyalty, and served as a symbol of nobility. Jade was therefore not just a beautiful stone, but a type of material that represented very prominent Chinese jade culture.

⁶ Jade is soft and radiant, the qualities that represent benevolence. It can have a sharp edge, but it will not hurt others, a trait that represents righteousness.

When it hangs on a wall as a precious ornament, it represents proper manners. All jade is solid and dense, the characteristics that represent wisdom. It is colourful, but it is transparent from the inside out, nonetheless, which represents honesty ([Bugani 2019](#)).

Confucians treated jade as an important tool for the gentleman to regulate his behaviour as well as flaunt his ideology and ethics. Confucianism also emphasised the concept of hierarchy through the posture of those wearing the jade. In the Han dynasty, when the ministers met the emperor, they must stand up and let the jade drop down. Because the ministers were not allowed to face the emperor directly, they had to judge the actions of the emperor by relying on the movement of the emperor's jade. When the emperor's jade dipped, it meant the emperor had returned a salute to the minister; therefore, the minister had to bow more deeply and let the jade pendant hang straight down. If the emperor's jade pendant also hung down, this indicated that the emperor was bending down again, so the minister had to stand humbly and let the jade fall to the ground (Puett 2010). In the Han dynasty, the assembly of the jade pei ornament set varied according to the wearer's identity, and it was designed using different forms (J. Tan 2007), combinations and specifications of jade pieces. In the middle-late Han dynasty, the jade pei ornament set already had fixed forms. One was vertically suspended on the body. Another was worn on the sides of the body. The general order from the top to the bottom of the jade piece was the jade Bi, jade Wengzhong, jade Heng, jade Huang, Jade Huan, jade Chong Ya, and jade beads. The jade worn on the sides of the body usually had the jade sword on the left, and jade Huan and jade Jue on the right (Taube 2005). According to the older system of the Shang and Zhou dynasties, the higher-ups carried longer and more complex jade pei ornament sets. Their subordinates wore simpler forms and shorter jade pei ornament set. Furthermore, the jade pei ornament set acted as a tool to control the gentleman's words and deeds; it limited the gait and movement range of the jade wearer. Therefore, wearing jade became a symbol of ethical behaviour for gentlemen.

3.3.1.2 'Doctrine of the Mean'

The 'Doctrine of the Mean' reflects the dialectical thinking of Confucianism. Confucius thought that gentlemen are neither particularly prone to certain aspects of social affairs, nor particularly cold and distant in some respects, but treated all people and things in the same way (Waley 2012). The Confucian 'Doctrine of the Mean' favours compromise and reconciliation. It encourages going from extreme to moderate, from chaos to unity, from the outside to the inside (Rainey 2010). Confucianism emphasises the harmonious and unified view of contradiction and the middle way, which shows the speculative and practical characteristics of Chinese philosophy (Y. Wang 2010).

There are positive elements in the ‘Doctrine of the Mean’. For example, people are advised to choose a middle way in social life, one that is neither too aggressive nor too defensive. Confucian pursuits harmonise aesthetic ideals and aesthetic philosophical bases in accordance to the golden mean, which determines the aesthetic taste of the Confucian who must be in pursuit of the beauty of neutralisation ([Amir 2015](#)). Confucian aesthetics advocates the symmetrical form and the use of not too much decoration, both of which reflect the dialectical relationship of moderation in jade carving. This concept of moderation has had a profound influence on design form, to the extent that the Chinese basic design form was already laid out after the Han dynasty. It emphasised neutralisation, stability and harmony. Moderation was highlighted in the strong sense of symmetry which was reflected in construction, apparel and product design. Even in the case of the complex design form of the jade pei ornament set, the basic design had to be in accordance with these principles in order to achieve the overall balanced vision.

3.3.1.3 ‘Jade-oriented’

The Confucian sense of piety attaches great importance to death. One of the main symbols for filial expression is the funeral rite ([Qin 2013](#)). The custom of elaborate funerals was popular during the Han Dynasty due to the Confucian practice of paying respect to our ancestors. At the same time, the custom of elaborate funerals also enhanced the design of funeral and burial objects. The burial jade, as a shining star in the history of ancient Chinese traditional jade, has left behind an indelible trace in Chinese history. The ancients believed that jade was a symbol of privilege in the world, and therefore it had to be placed in the grave as well. In order to ensure the dead people had a lofty status in the afterlife, the living had to bury many precious jade items in the graves.

The ancients believed that jade had special features which could preserve the skeleton from decay ([Lyons 1978](#)). In order to preserve the body, the ancients devised jade clothes, jade plugs (for the nine apertures in the human body), mouth-jade and jade face coverings. The jade clothes consisted of six parts, including the hood, upper body, sleeves, gloves, pant leg and shoes. Those parts were made of jade pieces along with gold, silver, silk and other materials. The design of burial jade was in accordance with strict “grade” requirements, while the use of the jade connecting material depended on the user’s social status. The jade clothes covered the whole body to ensure that the corpse

would not rot. Jade plugs were designed to prevent the human soul from leaving the body. These included eyelid plugs, ear plugs, nostril plugs, mouth jade, anal plugs and genitals cover. Chinese jade yù han refers the type of jade object placed in the mouth of the deceased, and was most commonly in the shape of cicadas. Facial covering jade was used with fabric to cover the face of the deceased body. Its design was in accordance with the person's face and covered it entirely. There was also another burial jade object called the jade grip. The ancients believed that wealth and power should still be retained in the afterlife. The Han jade grip was commonly a pig-shaped elongated strip because China was a farming nation and, as such, the pig was a symbol of wealth. Therefore, placing a jade pig in the dead person's hands meant that they will be in possession of wealth in the afterlife.

Burial jade did not highlight the beauty of decorative elements ([Xia 1983](#)). Indeed, the design styles were minimalist in form. Almost all the compositions, ranging from simple geometric forms, to the jade grip and mouth-jade with bold styling, were not carved with much detail and ornamentation, but only with a few incised lines to interpret the form. Although the burial jade had a very simple form, it nonetheless represented the Confucian concept of hierarchy and the understanding of death.

3.3.2 Impact of Confucianism on jade

The spread of Confucianism was closely related to the occurrence and development of jade culture. The influence of Confucian culture on the design of jade carvings in the Han dynasty mainly manifested in two aspects, namely, the obsession with hierarchy and the “jade metaphor in the virtue of the gentlemen” thought.

(1) Obsession with hierarchy

Confucius invented the concept of ‘ritual doctrine and customs’ (Li): that is, removing the commercial contents of ritual, and taking benevolence and etiquette as the code of human conduct. Jade became a tool to restrain people's behaviours and, correspondingly, a variety of new jade design forms emerged to service ritual. Li also restrained the design development of jade carving. Under the control of ritual culture, the decorative pattern, colour, grade and quality of jade raw materials had to comply with

etiquette and custom. The jade carving design became the normalised design scheme and can be described as design with the assigned subject.

Under the influence of Confucian culture, the aesthetic value of jade carving design transformed into a focus on virtue and etiquette. Li became the adhesive that closely linked decorative concepts with ancient myths, politics, religion and other ideologies. The decorative colours and patterns had symbolic meanings and became important carriers of powerful discourse. On the one hand, all these aspects restrained the ancient craftsmen from creating freely. On the other hand, in a positive sense, the Han dynasty jade carving was greatly inclusive due to the infiltration of ritual culture.

(2) 'Jade metaphor in the virtue of the gentlemen'

The popularity of jade in the Han dynasty was closely related to the Confucian notion of 'jade metaphor in the virtue of the gentlemen'. As a kind of jewellery material, jade has been humanised by Confucianism. Under the influence of the jade virtue doctrine, jade evolved into a symbol of good personality. Therefore, this has given rise to the conception that people who wear jade must be gentlemen, which brings a very positive moral evaluation to the jade material.

As one of the most profound philosophical influences on jade culture, Confucianism is greatly significant to contemporary jade carving design. Through analysing the jade virtue thoughts, the concept of hierarchy, and the Confucian dialectical thinking, my creative works in this thesis aim to reflect Confucian hierarchical thought in combination with the forms of traditional jade carving and contemporary art language. Roland Barthes said that symbols which have entered the social system convey more meaning by not merely adding up individual meanings, but through different combinations of rules ([Murray 1983](#)). This view is obviously reflected in ritual jade carving, especially the jade pei ornament set. As a kind of special symbolic expression, the jade pei ornament set, reveals the internal structure of social relations. This is an important stylised symbol with extremely clear symbolic meaning. As the symbol of class attributes, the jade pei ornament set (**Figure 15**) was chosen as a basic modelling framework for the creative production design work in this thesis. The jade pei ornament set is representative of supreme symmetry under the influence of the 'Doctrine of the Mean'; it is also a product of hierarchical design.



Figure 15 Jade pei ornament set, Guang Dong province, China. Photo taken by Tian Bingrui in 2017.

3.4 Conclusion

The core philosophical systems in Chinese culture are Taoism and Confucianism. The mainstream cultures of Confucianism and Taoism mutually replenished each other, and they have been penetrating Chinese thought for more than 2,000 years ([F. Guo 2004](#)). They have shaped the Chinese people's world outlook, outlook on life, art ideology and daily behaviour. In the field of art, the influence of Taoism is even more profound than Confucianism ([Ely 2009](#)). The artistic form and style of Han dynasty jade carving were inseparable from Taoist and Confucian philosophy.

This chapter has introduced and expounded on the guiding role of the important concepts of traditional philosophy on the design of jade carving in the Han dynasty from the perspectives of theory and history. It has also illustrated how Huang Lao thought and Confucian ideas have been applied in the design of Han dynasty jade carving. These philosophical principles were readily assimilated into the jade designs during ancient times because of their authenticity as well as the acceptance of these beliefs and social values. They are also significant referential factors which are guiding contemporary jewellery design. More importantly, these principles are of great value to the creative

production practice, which will be further discussed in this study. In the next chapter, the superstition and jade carving design in the Han dynasty will be presented.

Chapter 4 Superstition and jade carving design

4.1 Overview

The subjective viewpoint toward life and death was one of the main reasons why the Han dynasty superstition and immortality thought prevailed. Han dynasty people believed that the soul will leave the body after death and will bring disaster to the living. As a result, people needed to use sacrifices to appease the spirit so as to stop any injurious acts. Because of this reason, there are many complete sets of living rooms in the Han dynasty tombs that were similar to residences that people were living in at the time. Han dynasty people cared in particular about the afterlife; therefore they buried the dead along with their property in order to keep their real-life family status, social destiny, and many other important issues. Meanwhile, with its promotion and development by Taoists in the late Western Han dynasty, the immortality idea eventually became a social custom ([Morrow and Pearlstein 1998](#)). The superstition had a transformative effect on the aesthetic consciousness of the Han dynasty: auspiciousness and disaster had become a standard for judging beauty and ugliness. The superstition also made people have an expectation for life after death. This historical feature created the unique burial jade design in Han dynasty jade carving. Therefore, the objective of this chapter is to understand the leading role of superstition in the thematic and form design of Han jade carving.

The divination as superstitious practices influenced people's acceptance of culture and behavioural models. The popularity of divination helped to establish the auspicious idea in Han dynasty artistic design, which was promoted in the development of the Han dynasty artistic form, decorative culture, and cultural manifestation. At the same time, the necromancers also designed some equipment and patterns as props for achieving their purposes. All of these factors promoted the diversified development of Han dynasty artistic design.

4.2 Chen-Wei theology design for immortality

The popularity of divination during the Han dynasty consisted of two parts, namely, prophecy (Chen) and Wei Shu (Wei) ([Hsu, Baker, and Duke 2006](#)). The so-called Chen is

prophecy and lingo fulfilled for the future. It usually appeared as a pretext for destiny and deity's will. Wei is a concept relative to the case of Jing, which is derived from the classical sense. It refers to the necromancer Confucian scholars affected by Hetu and Luoshu ([Giacinto 2007](#)). This divination science is the basis of a superstition-based theological interpretation of the Confucian classics, with aims of promoting national development, governing revolutions, and claiming that the kings and princes are born as an arrangement of destiny. This divination science can be said to be the study of existing objects which lie in people's hearts, but it eventually became a kind of pseudo-rational academicism instigated by some scholars and creationists ([Sanft 2010](#)). However, this kind of false academic pursuit of the auspicious concept played a key role in the development of artistic design in the Han society.

Auspicious thoughts are not unique to divination. It is a general idea of the ancient Chinese that had previously been realised. After the Han dynasty, auspicious thoughts became closely associated with the development of Chinese intellectual history. It was a part of Chinese aesthetics and under the influence of auspicious thought at that time. People always wanted to do everything they could in real life to build the so-called auspicious atmosphere. Therefore, the Han dynasty artistic design was also under the influence of this thought and showed diverse cultural characteristics.

The immortality idea is core to many spiritual and cultural phenomena in ancient witchcraft, religion, mythology, custom, philosophy, literature and art. This spiritual-cultural phenomenon may not have appeared if the immortality idea did not exist. The Han Chinese pursuit of immortality rose to celestial beings. This mode of thought can be categorised into two types of desire. Firstly, the desire for becoming immortal. This is the pursuit of external spiritual motivation for immortality and for the spirit to be gradually translated into a higher level, that is, the process of immortality. Secondly, the desire for seeking immortality. The pursuit of immortality is not the ultimate goal of pure faith but rather it is to realise secular utilitarian purposes. In order to pass the immortal sacrifice and gain admission into the fairy world, people sought opportunities to acquire the ability of longevity like the immortals. Having the beliefs and desire for pursuing immortality was not enough, Han people also needed to show these desires in the real world. Thus, the feather men, flying horse, and auspicious beast are commonly seen in the artistic activities, as well as a variety of jade pieces which communicated the idea of the celestial,

for example, as seen in the jade immortal riding a horse (**Figure 16**) in the Xianyang Museum of Shanxi province ([P. Qing 2011](#)). The piece consists of an immortal, a horse and a cloud base using white nephrite. This artwork highlights the sculpture of a plumed human who is holding ganoderma. This kind of image features the idea of the fairy from the human heart. With the combination of plumed human and running horse and the clouds, it is a true reflection of the popular ideology of ascending and becoming an immortal in the Han dynasty.



Figure 16 Han burial jade - Immortal riding a horse, c. 200 CE, China. Image reprinted from P. Qing (2011).

Han people advocated Taoism and the immortality idea. The immortality idea offered guidance to the design of Han dynasty jade carving. Therefore, the divine power of jade replaced the traditional ancestor worship, etiquette norms and moral indoctrination since the Shang and Zhou Dynasties, and eventually became a tool to connect with human life and death. The subjective imagination and creation of the artistic image thus roamed widely within the space of Han culture. Subjective imagination with the Han Chinese characteristic of romantic feelings also widely existed. The Han dynasty jade changed the previous strict customs and rules and was henceforth designed with a kind of flow that was full of emotions, which shaped a variety of images in people's minds. The carving was so skilled; there seemed to be no rationality in the rotating jumps in the represented feelings. However, this kind of lively emotion also contained deep and rich spiritual thoughts. This is true especially for those mysterious modellings of the

dragon, pegasus and four gods, although their basic images come from nature. People also tried to make them in reality, such as growing wings on horses, which were able to roam in the sky and become associated with the deity world, thus helping people to rise as immortals. In summary, Han dynasty jade carving art was full of free-spirited people, beasts and deities that coexisted with each other and were capable of romantic and friendly exchanges. Along with the Han dynasty promoting the Taoist thoughts, public consciousness of the mythology of jade also gradually increased. The Han people developed a range of implements that they believed could exorcise evil spirits, such as Gang Mao, Yan Mao, Weng Zhong, and Si Nan Pei. The people regarded these jade types as the symbols of the deities, good things to keep on the body, or to be used as emblems to ask for peace, in hope of warding off disaster and driving out demons.

4.3 Fang Shu design for good wishes

Fang Shu is an important cultural phenomenon in ancient China. Many inventions in the Han dynasty are closely connected with the practical knowledge of Fang Shu. The relationship between Han dynasty artistic design and Fang Shu can be mainly seen in two aspects. The first is the impact of Fang Shu thought (a way of thinking of the Five Elements) on Han dynasty artistic design. The other aspect is Fang Shu's influence on alchemists who considered artistic design as a medium to realise their ideals. Fang Shu includes two knowledge system, Fang Ji and Shu Shu.

Fang Ji is a mixed knowledge system of superstition and science and technology that is related to medicine, health, and the way to becoming an immortal. It was believed that Fang Ji allowed people to achieve immortality by removing illnesses and by enabling people to possess longevity and health. Owing to the emperors' worship of the immortals and the promotion of Fang Ji, alchemists who knew how to utilise the tools for pursuing immortality received much attention from the political groups. After the period of Emperor Wu of Han, the alchemist culture started to spread and change. It was initially influenced by divination thought and subjected to theological transformation, but gradually gained independence before the end of the Han dynasty. Alchemists had a complex kind of official position. They were engaged in academic activities, medicine and astronomy and achieved great success in the Han dynasty. At the same time, they also provided the the potential scope for incorporating their materials and techniques in

artistic design. The Han dynasty alchemists had outstanding achievements in medical theory, pharmacology and anthroposomatology. Han dynasty alchemist clinical treatment is the most distinctive witchcraft therapy. From the viewpoint of the society, the Han dynasty alchemists may have actually hastened the birth of astronomy as they needed to observe and record astronomical phenomena. As a result of this enhanced understanding of the universe, Han dynasty design became full of imagination and mysteriously themed works. In this respect, the alchemists opened up people's understanding in the field of science, while at the same time complementing it with philosophy and artistic design.

Shu Shu is a prototype of numerology. A Shu Shu man had the official position of court historian, one who was solely focused on administering the astronomical calendar. Although there are countless ties between the Fang Ji and Shu Shu, there are fundamental differences between them. Fang Ji's four-category divisions (medical classics, classical prescription, Fang Zhong, and the immortals) are all interpretations of the theory of unlimited birth and unlimited transformation. However, Shu Shu has six types, including astronomy, chronological dating, Five Elements, divination, miscellaneous divination, and the dual simplex method. For example, Fang Ji thought in the medical classic of the Huang emperor reveals that Yin-Yang, Five Elements, astronomy and the knowledge of the lives of living beings go on without end, but separately. By contrast, Shu Shu merged astronomy, chronological dating, Five Elements, divination, miscellaneous divination and the dual simplex method.

4.3.1 Design for divination

The Han dynasty greatly emphasised the pursuit of immortality, which can be found in many divination or ritual activities during this period. Thus, the various instruments for divination became important items in people's daily lives. Jade Bi was frequently used in the Han dynasty, according to ancient records and modern speculations. It was also used throughout the Spring and Autumn Warring States Period. The jade Bi that was designed for divination had a lot of functions. It was a symbol of identity as well as a type of accessory that additionally could be used for balancing weight, or for warding off bad luck. More specifically, though, it could be used for worship, and also served as a ritual object that was used as a sacrifice to the deities, the mountains, the seas, the rivers and the universe. In divination activities, jade Bi mainly acted as a medium of communication

with ancestor spirits. It could also be used for direct divination, as the medium of communication between earth and the deities of heaven. Jade, therefore, had a crucial role in the communication between people and the deities.

4.3.2 Design for exorcism

Jade in the Han dynasty was not only a means of communication between heaven and earth; it was also regarded as a special material to abolish disease, exorcise evil spirits and drive off evil. Therefore, it was endowed with spiritual sustenance by many people. Under the influence of superstition, the jade pendant for exorcism appeared in the Eastern Han dynasty, in the form of decorative patterns with exorcism meaning in the Western Han dynasty, such as Jade Gang Mao, jade Weng Zhong and jade compass pendant.

(1) Jade Gang Mao

Jade Gang Mao and jade Yan Mao (**Figure 17**) is an ancient amulet that generally comes in pairs. They have the same shape with a hole in the middle and can be strung on a rope for wearing. The surface is carved with auspicious statements to drive away evil spirits ([Morrow and Pearlstein 1998](#)). During the Eastern Han dynasty, Gang Mao was popular, and was classified in both the Yu Fu system and hierarchy system ([Huang 2013](#)). It was a type of accessory that could be made from various materials, however jade was the most common. The newly unearthed Gang Mao are all made of Hetian nephrite with engraved inscriptions on the seal character and official script. The inscriptions contain auspicious words for the purposes of exorcism.



Figure 17 Jade Gang Mao and Jade Yan Mao, c. 100 BCE – 100 CE, Shannxi province, China. Image reprinted from Morrow and Pearlstein (1998).

(2) Jade Weng Zhong

In ancient times, Weng Zhong, was one of the main male figures to be carved in jade. He is an ancient soldier who was very skilled at Kung Fu and won many battles. After he died the emperor made a copper statue of him and placed it in front of the Sima gate to his palace so that his spirit could give protection. In the Han dynasty, Weng Zhong became very popular as an amulet that would offer protection. Later generations wore jade ornaments with images of Weng Zhong's face and body carved on them (**Figure 18**) for the purposes of exorcism.



Figure 18 Jade Weng Zhong, c. 200 CE, China. Image reprinted from L. Luo (2007).

It is interesting to note that in the Western Han dynasty, the jade carving of Weng Zhong featured his youthful image, but in the Eastern Han dynasty, it was mostly his older image. This may be explained by the fact that the Western Han dynasty government was governed according to the military officer mode, which contrasted with the civilian officer mode in the Eastern Han dynasty. In the jade carvings, Weng Zhong's facial features and the silhouette of his clothing were made by using the Han Ba Dao oblique grinding technique which cuts out succinct and sharp lines. The Han dynasty Weng Zhong perforation in the form of the “人” glyph tunnel, ran from the top of the head until the abdomen, then split two ways from both sides of the waist. The design fully considered the wearability of the jade. The lace for the jade was convenient for wearing and does not overwhelm the design aesthetic ([S. Li 2010](#)).

(3) Jade Si Nan

The Si Nan (compass) was made of sensitive magnetic materials and used as a north-south direction indicator. The ancient compass needle looked either like a spoon or a gourd ladle. No matter how the orientation plate was placed, the spinning spoon always pointed to the south. During the prevailing days of divination in the Han dynasty, the Si Nan became a tool for measuring fate. The orientation plate depicted the divination images of heavenly stems, earthy branches and eight diagrams. Soothsayers made predictions according to the spoon's direction.

The Si Nan jade pendant is one of the Han dynasty jade designs that was used to ward off evil. The shape of the Si Nan jade pendant is like a “工” (a Chinese character) shape. In the main body, a flat cuboid consisting of two layers is connected to two rectangular prisms. The transverse has a groove. There is a small spoon on the top and a small dish at the bottom (**Figure 19**) ([Yang 2009](#)). The Si Nan jade pendant does not have any decorative patterns. There is a crosswise or vertical hole in the top small spoon handle which can be strung for wearing.



Figure 19 Si Nan jade pendant, c. 200 CE, China. Image reprinted from Yang (2009).

4.4 Discussion

The diverse aesthetics and design forms of the Han jade are great referential resources for contemporary jade carving design. As Han jade carving gradually changed from being the sacrificial vessel to having a more secular function, it became a medium for the thoughts of the ordinary folks. This secular way of thinking pulled jade out of the role of being just a divine material. In return, the social attitude towards life was influenced by the philosophical thoughts on jade art. That is why the design themes of the Han jade focused on becoming immortal with strong romanticism in the design style. There was an interactive effect between cultural inheritance and jade art development, and this interaction is still important in modern times.

This chapter analysed the influence of superstition on Han dynasty jade carving. The following points can be summarised accordingly.

(1) The artistic style of combining realism and romanticism opened up the design boundaries of jade carving. The unconstrained Han dynasty jade carving design is full of imagination and artistic vitality. The unique artistic style of jade carving in Han dynasty breaks through design limitations and presents a new visual experience, providing a freer and more flexible model of comprehensive sensory experience for contemporary jade carving design.

(2) Symbolic meaning: The method of metaphor and symbol in divination is abstract and artistic, shaping various intuitive design elements and jade carving works. The design beauty of jade carving lies in the symbol and metaphor of the image, establishing a unity of material function and spiritual function, which can show the contemporary characteristics of jade carving.

In addition, the relationship between contemporary and tradition Han jade art is also reflected in the secularisation of jade's meanings. Due to the transformations in jade carving's secularisation since the Han dynasty period, the concept of auspiciousness has evolved but continued to remain particularly prominent in jade carving until now. Many of the design themes related to the secular have appeared successively. The rich philosophical thoughts of the Han dynasty not only created a new design theme in the Han dynasty but also changed the design style to a form of romanticism, which can be applied to contemporary art design. An important aim of this thesis is to reveal the connections between the principles of traditional Han jade and contemporary jade design.

Chapter 5 Significance of Han jade to contemporary jade development

Dr Joseph Needham, an expert on Chinese science and civilisation ([Needham 1980](#)), commented that jade art has become a typical characteristic of Chinese culture. For more than 3,000 years, jade's texture, shape and colour have inspired sculptors, painters and poets. Ancient jade carving is a useful cultural heritage, whereas contemporary jade carving is more like art or new creative works which provide people with affective experiences due to the particular design, functions and social meanings.

There are both similarities and differences between ancient jade carving and contemporary jade carving. In many ways, contemporary jade carving art is inherited from, or based on, Han dynasty jade culture. The development of contemporary jade carving has naturally been based on traditional jade carving, which means that contemporary jade works have strong national and traditional cultural characteristics, rather than being random artistic works and cultural accidents. The Han dynasty was the first peak of jade carving in China, it represented the golden age in the all-round development of jade and set a solid foundation for future development. Therefore, the significance of the jade carvings in the Han dynasty appears in multiple aspects:

(1) Han dynasty, as a milestone of the jade culture, is much more important to contemporary jade carving than any other historical periods.

(2) Han jade culture is the foundation of the inheritance and innovation of contemporary jade carving culture.

At the same time, however, in order to facilitate innovation in jade carving, people should not just copy culture, but rather supplement and advance it, and invent new culture. Traditional culture should nonetheless remain the cornerstone of innovation. It is critical for the creation of a new culture to include the traditional culture while keeping with the trend of jade development. Traditional jade carvings include jade culture, philosophy and design techniques, which are the sources of inspiration and design reference for contemporary jade carving.

Thus, the aim of this chapter is to deliver a combined discussion of Han dynasty jade design and associated design themes, design innovation methods, materials innovation,

and other aspects, to find a set of innovative approaches in jade carving suitable for contemporary aesthetic tastes. It will show that the Han dynasty jade design is valuable for contemporary jade design.

5.1 Impact of traditional Chinese culture on contemporary art design

Chinese traditional culture accumulated rich national cultural materials for the nation over the process of five thousand years of cultural precipitation. The inheritance and development of jade design are consistent with the inheritance and development of traditional Chinese culture. This culture has formed a Chinese characteristics on jade design that different from others. In the current cultural milieu, jade design innovations are being stimulated. The combination of traditional and modern cultures is a trend that is developing in contemporary design not only in China but also in the world. It is also a new concept of design and cultural inheritance.

The more the art is subject to nationalisation, the more cosmopolitan it becomes. Chinese contemporary art inherits the essence of excellent national art; it possesses Oriental identity and artistic characteristics ([Needham 1980](#)). Nowadays, integrating traditional Chinese culture into contemporary art design is an inevitable trend in China's current social development and the mission entrusted to modern Chinese designers by the times ([Gao 2017](#)). Therefore, designers have to firstly understand Chinese traditional culture. Secondly, designers should inherit and develop the essence of Chinese traditional culture. Extending on this point, the preservation of the artistic essence and national aesthetic characteristics of Chinese design and high-level works of real national flavour is strongly recommended.

5.2 Combination of traditional culture and modern aesthetic in jade

Chinese jewellery modelling and technology have never lagged behind any other countries, but the development of modern jewellery is now being greatly influenced by western aesthetics and modern industrial design. The influence of the popularity of western jewellery reflects people's response towards modern cultural change ([Yin et al.](#)

[2014](#)). The combination of traditional culture and modern aesthetic has become inevitable for the development of the contemporary design of jade carving. Contemporary jade carving work, however, has difficulty in reflecting both the modern aesthetic taste and Chinese traditional nationalisation. The traditional culture represents the inevitable relationship with the historical tradition, whereas the current cultural system relies on the generation of original ideas. One simple example relates to flexibility of cultural inheritance. Zhou period bronze pattern is gradually being accepted, along with many kinds of art forms of the Spring and Autumn Period and the Warring States Period, as extensions of the new patterns of the different eras. Traditional pattern development up to today has become a conventional style. It is very hard to change this fully, but there is sufficient aesthetic interest to stay with the traditional culture, design forms and decorative patterns, and for them to be placed in the background of the contemporary aesthetic to be recreated as a comprehensive contemporary design form.

It is hard to ignore the cultural value transmitted through history and make contemporary innovations in design readily accepted by people. Thus, the combination of traditional culture and modern aesthetic in jade needs to address a self-awareness about jade itself as designed by its audiences under the market mechanism. The design of the subject or theme is the core step of jade carving creation.

The content of Han jade used for reference in contemporary jade design is divided into the following points: theme creation; aesthetic form; elements design; and symbolic semiotics.

5.2.1 Theme creation

Chinese traditional jade carving themes are extensive. They have appeared in the Han dynasty jade carvings, such as the religious stories, nature motifs, and exotic animals. Every artwork is representative of the aesthetic meaning and cultural implication of the times. The moral ideology and culture connotation is encapsulated in the jade carving piece with the aid of harmonics, metaphor, analogy and symbolism. For example, one of the Han people's commonly used decorative patterns is called the rice grain, which not only symbolises the crop harvest and respect for food, but also an associated kind of awe and hope. Han dynasty jade carving can be divided into ritual jade, burial jade, and jade

for exorcism. Following the division of types of ancient jade carving, contemporary jade carving design can be classified in a similar way, such as commemorative jade carving, memorial jade carving, as well as jade items used for exorcism, protecting the peace, for wealth, for good fortune, and to prolong life.

The newly designs adopting traditional themes are re-creations of the ancient design themes that nonetheless priorities modern aesthetic demands. For example, the jade cicada design shows in **Figure 20** that keep the traditional Han dynasty jade carving technique of Han Ba Dao with concise and powerful lines, as well as the union of curve and linear elements. The design also obeys the design characteristics of absolute symmetry and the pursuit of design principle of ‘inspired by nature’. However, compared with the traditional jade cicada, the contemporary jade cicada presents a stronger sense of three - dimensional, especially the cicada wings. The contemporary designer attempts to ensure that the works exemplify good visualisation and tactile appearance in agreement with modern aesthetics ([Wujiang Museum 2013](#)).

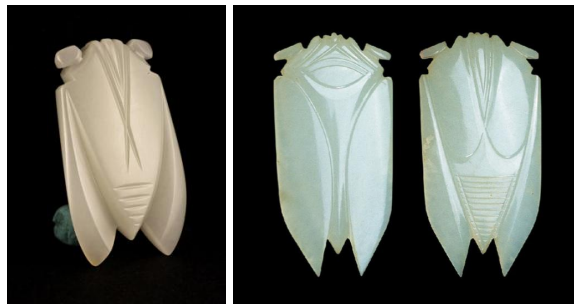


Figure 20 Xi Jiang, Newly design (left) of Han dynasty jade cicada (right), c. 2005-2010. Image reprinted from Wujiang Museum (2013).

Figure 21 is another example shows a contemporary jade Weng Zhong which retains the simple and solid form of the traditional jade Weng Zhong. It pursues the dynamic of the design line with simplicity. A few carving lines show the overall shape of the jade Weng Zhong. This simple carving technique captures the essence of Han dynasty jade carving while conveying the characteristics of the contemporary aesthetic.



Figure 21 Xi Jiang, Newly design (left) of Han dynasty jade Weng Zhong (right). Image reprinted from (C. Shan 2011).

5.2.2 Aesthetic form

The Chinese modern aesthetic has learnt from the traditional aesthetic, and is also influenced by western modern art. New aesthetic forms have arisen with integration of Chinese and western cultures. In the early Chinese jade market, the jade carving culture was not greatly affected by western consumers because of very limited communication ([Versteeg, van den Hoven, and Hummels 2016](#)). In the later times, with the opening up of China, Chinese jade carving became known and accepted by the world. The combination of Chinese traditions and western culture was pushed forward accordingly, driven by the designers' motivation for exploring new ways of jade carving. Modern western painting, sculpture, carving processing and other formal innovations are the main references and techniques that have been adopted and mixed with traditional Han jade culture. The inheritance of ancient jade carving technology was not just academic, but also invested in perusing the flavour of the past ([Demattè 2006](#)). It is critical to acquire the true meaning of tradition. Imitating the shape and decorative pattern is only an initial step. Combining them with the modern market and human needs is the key to creating a new piece of artwork. On this point, Robert Baines⁷ provides an excellent example of how gold materials and traditional goldsmith techniques can be used to produce impressive new design forms (**Figure 22**).

⁷ Robert Baines is a renowned Australian artist-goldsmith, scholar and commentator in the field of contemporary crafts. He holds a doctorate for research into ancient goldsmith techniques of granulation.



Figure 22 Robert Baines, Golden neckpiece, approx. 180 x 175 x 90 mm, 2015. Image reprinted from Levine (2016).

Robert Baines’s jewellery constructs are built entirely of lines. They are like a binary world where space is more predominant than mass. The overall form of his design, with its repetition of line and space, seems rhythmical and elegant. This achieves quite a similar visualisation effect as Chinese traditional filigree inlay art⁸ (Figure 23), in terms of the craft and sense of form. Therefore, contemporary designers need to absorb inspiration from both modern art and Chinese cultural traditions. As Jingyi Bai⁹ says, “the friction between western art and oriental tradition usually creates the most beautiful fireworks (Hsu and Lucas 2013)”. Meanwhile, the combination of Chinese and western aesthetic form in the contemporary context is easily recognised by international consumers.



Figure 23 Chinese traditional filigree inlay jewellery. Image reprinted from Hsu and Lucas (2013).

⁸ The Filigree Inlay, also known as fine gold technology, is a century-long Chinese traditional handicrafts, mainly used for the production of royal jewellery.

⁹ Master goldsmith and chief designer Master Jingyi Bai creates filigree inlay art and trains others to carry on its traditions.

5.2.3 Elements design

Given the diversity of the design language at present, especially with the fusion of old and new, inclusive design orientation has a larger scope. Contemporary design can use the main elements in Han dynasty jade carving as a template, while preserving its traditional implications and adjusting the element's form to meet the preferences and aesthetic tastes of modern people. An appropriate combination of modern aesthetics and tradition elements can enhance the required connotations. This is determined by the demand for diversity and complexity in contemporary design. The nationalisation of design with a special style and rich connotation is impacting on the audience in terms of the visual.

5.2.3.1 Expressing simple form

Simplification is based on people's subjective judgement of daily objects. A good art designer tends to reduce the unessential details of objects and leaves a simple form to achieve the strongest impression ([Jacobs 2012](#)). The simplified prototype of the natural object after continuous filtering, refining and restructuring should be capable of forming that subject's image in people's minds. This simple impression represents the recognition of the subject from the generality of the object. For example, the image of the jade cicada in Han dynasty jade carving provides the most typical cicada characteristics with regards to the simple shape, flat eye, fat belly, and the Han Ba Dao carving technique. This is the beauty of simplification and generalisation.

The main goal in choosing simplicity in artistic expression is to actively influence the audience's visual perception. Designers can present the artwork in a visual format that effectively matches the viewer's habit in accordance with the viewer's visual flow and visual logic ([Jozwiak 2013](#)). Traditional Han dynasty jade carving patterns, designed within the aesthetic creative environment at the time, had functions such as communicating with gods and recording their instructions. However, with the improvement in living standards and increasing aesthetic demands, the rich aesthetic values of jade gradually occupied the previous dominant functions. In other words, jade's metaphorical meanings were gradually weakened, and pure aesthetic values given much more attention than before. During this contemporary period, the processing of simplified artistic expression plays an important role in the stylisation of the elements and the

pursuit of design perfection ([Raunig, Ray, and Wuggenig 2011](#)). Jade designs may change from realistic to abstract, from diverse to convergent, from chaos to neat, from monotonous to rhythmical, from individual to general. They can also move from the original form to a spiritual realm from the point of view of the materials chosen. To some extent, the simplification process is like a refining process that lifts the low-level objective object to a high-level subjective artwork. As an example, the Pingan Buckle in **Figure 24** is a modern design inspired by the modelling of Han dynasty jade elements.



Figure 24 Soco So, Photos of Pingan Buckles. Photo taken by Soco So in 2016.

This kind of artwork retains all the original elements (circular design with a hole) that have been used in the Han jade Bi. However, there are some minor design changes, such as the three-dimensional visual effect compared to the original visual effect of ancient jade Bi, due to the modern appreciation of aesthetics ([Liu et al. 2011](#)). This little change is the expression of the creative inspiration of contemporary designers.

5.2.3.2 Designing with repetition elements and rhythm

Repetition can be useful in jade carving design. It is a very common method for design elements and arrange form ([Strauss and Fuad-Luke 2008](#)). The repeat design elements to provide a consistent visual experience. Generally speaking, inhibiting or weakening one element in the design, other parts or elements are likely to be released or

reinforced. Therefore, a attraction artwork can be use the way to connect all related single elements formed the visual rhythm through repetition or continuation. As a designer, we can use repetition elements and rhythm to create excitement or reassurance. For example, Xiaoxin Wang designed the artwork *Ritual Implement* (**Figure 25**) represented a solemn rhythm by the repetition elements.



Figure 25 Xiaoxin Wang, *Ritual Implement*, 2010. Image reprinted from Xiaoxin Wang (X. Wang 2015).

The inspiration of this artwork from the archaic jade slit disc (Jue) (**Figure 26**). The *ritual implement* referenced the form of permutation with repetition grain pattern carved on the ancient jade disc (**Figure 26**), but the grain pattern was replaced by small human figurine. The repeated the small human figurine elements in *Ritual Implement* have been regularised with a strong sense of order ([LaMore et al. 2013](#)). The repeating elements convey the feeling of a regular rhythm. From this point of view, the repetition effect gives the viewer a strong visual impression.



Figure 26 Jade slit disc (left) and jade Bi with grain pattern (right). Image reprinted from Truong (2016).

5.2.4 Semiotics

Semiotics is the study of works of art signs, symbols, and signification ([Eckert and Stacey 2000](#)). Central to semiotic analysis, in this respect, is the recognition of how visual and material culture is coded. For example, when somebody talks about Sherlock Holmes, and the iconic hat and a pipe comes into people's minds, semiotics and symbolic usage serve to provide direction in art design. Used in conjunction with the form aesthetics and elements design, symbolic usage should create a unique spiritual feeling in the artwork. Semiotics provides a radical and useful means to consider the relation of the form and subject of design to what it means to represent ([Bal 1998](#)). It seems obvious that semiotics has something to contribute to the study of jade carving. The jade carving work *Thousand-Hand Kwan-yin* (**Figure 27**) as an example, this artwork is impressive for integrating so many different buddha hand gestures on a single piece of jade that shows the power of the Kwan-yin is limitless, boundless, and inconceivable. This is a typical symbolic usage which shows the tangible and intangible form aesthetics.



Figure 27 Wang Yang, *Thousand-Hand Kwan-yin*, 2010. Image reprinted from Wang, Gan, and Zhao (2012).

5.3 Inspirations for contemporary jade carving

5.3.1 Colour choice

In the family of jade, either jadeite or nephrite exists in a variety of hues. Nephrite jade, aside from white, also comes in green-blue, gray, black, brown, yellow, green, etc. And the various colours of jadeite include pure white, emerald green, titian red, and mauve. The diversity of different colour of jade has been used for design since as early as the Han dynasty. On the one hand, the colour has symbolic meaning in ancient China. For example, the Chinese ancestors used four different colours of jade to sacrifice the heaven and earth, the four colours of jade associated with the four cardinal directions of the Four Guardians¹⁰. On the other hand, ingenious carvings considered very ‘smart’ design technique because cute use of colours. The artisan fully contemplates the substance and characteristics of the material at hand, which seems to restrict yet actually challenges him and ultimately inspires his creativity. The results are often surprisingly original, but at the same time so aptly natural that works like. Nowadays, jade carving design could benefit a lot from the traditional symbolic meaning of colours and the ‘smart’ design technique. In conclusion, there are clever ways to do the jade carving design by taking advantage of the jade colours. These include:

(1) Colour correlation

Just as the ancients used jade colours to indicate the sacred locations, contemporary art design is inspired by a similar colour correlation design method. The 2008 Olympics Fuwa (good-luck dolls) series, which includes Fuwa Beibei, Jingjing, Juanhuan, Yingying and Nini, is an example of a new subject for jade design (**Figure 28**). The Fuwa series of jade carvings (**Figure 29**) uses five different colours of natural jade, namely, green, black, blue, yellow and brown. Each mascot has particular meanings according to its jade material and colour. This approach of using colour correlation in design potentially enriches the diversity of modern jade carving. Colour correlation is also applicable to jade ornamental symbols or elements. **Figure 30** gives an example that has cleverly utilised the colour distribution of Hetian jade with unique symbolic design.

¹⁰ The Four Guardians (Chinese: 四象; pinyin: Sì Xiàng), are four mythological creatures appearing among the Chinese constellations along the ecliptic, and viewed as the guardians of the four cardinal directions. They are the Azure Dragon of the East, the Vermilion Bird of the South, the White Tiger of the West, and the Black Tortoise (also called "Black Warrior") of the North.



Figure 28 2008 Olympic symbols - Fuwa, 2008. Image reprinted from Fang (2006).



Figure 29 2008 Olympic Jade Fuwa, 2008. Image reprinted from W. Wang (2007).



Figure 30 Artist unknown, Heitian jade, c. 2000-2010. Photo taken by Tian Bingrui from a Chinese street market in 2014.

Figure 30 shows a typical work of ingenious carvings. This jadeite, part green and part white, which is now a wonderful Chinese water buffalos, would be considered mere

second-rate material full of impurities if it was to be made into usual ornaments, because of the blemishes that came with it. However, the artisan ingeniously transformed the green part into a lifelike water buffalos and the white part into water waves, with all unappealing colours now hidden invisible amid the smart design. On the whole, this piece of jade work conveys its vision impact to the viewers by ingenious carving ([Hotan Museum 2017](#)).

(2) Colour contrast

Colour contrast refers to the method that makes full use of the jade material's natural colour contrast to improve the design aesthetics. The fine example shown in **Figure 30**, the white part of Hetian jade are used to carve the orchids and the black part of jade as a background. Black is visually heavy. On the contrary, white is considered clarity, cleanliness and purity. It is important to recognize that although quintessentially opposite in a cultural and visual sense, black and white should not compete, but rather complete when used in this jade carving work. The white colour of jade shows the purity, fresh and graceful orchids. Furthermore, the white orchids contrast strongly with the black background. Using the visual balance of colour contrast with an accent colour leads to powerful messaging and is a helpful strategy when wanting to draw attention to a specific object or part. Therefore, using this colour contrast on a piece of jade carving work is not only helpful for reflecting the designer's ingenuity, but also for creating new visual effects.



Figure 31 Colour contrast of jade carving, c. 2000-2010.

Image reprinted from Ling Feng (2018).

5.3.2 Using new materials

5.3.2.1 Metal

Nowadays, precious metal becomes commonly used materials combination with jade formed a new design style, especially in the design of metal setting jade Buddha and jade Avalokitesvara pendants. The traditional jade Buddha has not changed much in form or style, but the materials have been enriched to keep pace with modern aesthetic. The usage of metal in the jade pendant does not change the character of jade. Rather, the metal part serves as a kind of decoration, and is useful in highlighting the complementary decorative effect. The modern white jade artwork designed by Soco So¹¹ – the cicada in **Figure 32** – has been inspired by the traditional Han dynasty jade cicada. The artwork uses white jade as a main part and combines it with the precious metal into the design. As a result, the metal part enriches the visualisation of the adornment and the gives traditional jade a modern twist.



Figure 32 Image of an example of modern jade cicada with metal, 2011. Image reprinted from R. Wang (2011).

5.3.2.2 Coloured gems

Coloured gemstones and jade have some similar characteristics, especially in terms of the richness of colour. The combination of these two materials will produce a fantastic

¹¹ Soco So is a revolutionary contemporary jewellery designer. He specialises in jade design and combines traditional Chinese design elements with contemporary aesthetics. His artworks achieve a very good balance between commercialisation and artistic quality.

visual effect. At present, there is already a large number of jewellers that combine with coloured gems and jade in the market. However, the excellent artworks are still rare because of lack in good design concepts and innovation ideas.

Compared to the jewellery design works in the middle-level market in terms of expense, the high-end market jewellery design is more mature. The use of coloured gems can be divided into two types. The first type uses both coloured gems and jade as the primary materials of the jewellery design. For instance, the Cartier high jewellery cockatoo ring (**Figure 33**; left) ([Pointon 2007](#)) is made of platinum, jade, obsidian, aquamarine and diamond. The colour combination looks harmonious. The second type uses jade as the main material while the coloured gemstones play a supporting role. For example, the flower ring (**Figure 33**; right) designed by Wendy Yuw ([B. Zhang and Kim 2013](#)) was produced with 8ct platinum, diamond, sapphire, garnet and numerous precious jade materials. The jade carving rose in the middle of the ring, coloured stones surrounded the flower to convey the elegance of the artwork.



Figure 33 Wendy Yuw, Coloured gems and jade in a cockatoo ring (left) and a flower ring (right), approx. 20 x 20 x 20 mm, 2012. Image reprinted from B. Zhang and Kim (2013).

In general, the combination of jade and other materials can be found in a wide range of decorative design works. However, if the combination is not harmonious, the product will rarely be accepted. Therefore, when combining jade and coloured stones, the designers must pay a lot of attention to the colour matching of the precious stones and the proportions of the different materials.

5.3.2.3 Plant materials

In addition to the traditional precious metals and coloured gemstones, some other special materials also offer possible options for contemporary jewellery. Plant material is a very common in antique art. These include woody and herbaceous materials, such as ebony, rosewood, banyan, bamboo, and grass seeds, which are once again being used today. The mixed style of plant material and jade is quite commonly seen in Chinese traditional furniture design. During the Ming and Qing dynasties (following the Han dynasty), wooden cabinets and containers widely employed such a mixed style. Plant materials are good for their natural properties in some cases. Moreover, the essentially gentle character of plant material is similar to jade in terms of Chinese aesthetics. They were highly praised by the ancient people as evidenced in the literature. Even though the combination of jade and plant (**Figure 34**) does not admittedly provide a splendid visual effect, it nonetheless presents a sense of tranquillity and calmness on the whole.



Figure 34 Artist unknown, Plant material and jade, c. 2005-2015. Photo taken by Tian Bingrui in a Chinese street market in 2015.

Furnishing articles used for displaying the jade carvings often used plant material, especially different grades of wood ([Springer 2009](#)). Such a collocation method has become an established design form, so the combination of jade and wood forms accords with contemporary aesthetic tendencies. However, designers need to consider the material proportion of these two kinds of materials; the imbalanced proportion of materials may result in the work being rigid, but ingenious and reasonable material usage will be a plus for the creative work.

In conclusion, jade can be mixed with precious metals, coloured gemstones and plant materials. The combination of several materials facilitates the provision of new creations in contemporary jewellery. However, in the process of the development of contemporary art, matching the many materials has become a major work of design. Contemporary jewellery art is different from commercial jewellery which mostly cares about the product's financial value. Within the field of art, the combination of jade and other materials can be extensive. From this point on, the combination of several kinds of materials is presented as an advanced hypothesis of innovation in jade design, but it is not absolute. The creative possibilities in jade design are extremely broad.

5.4 Contemporary jade carving design approaches

It goes without saying that tradition reference values of the Han dynasty jade carving are important for innovation of contemporary jade carving. However, the modern consumers' changing aesthetic standard requires new demand for jade carving works, so the development of modern jade carving should rely on traditional handicrafts and cultural inheritance, and the value of jade carving works should be promoted through applying modern design ideas, integrating regional characteristic culture and improving artistry ([Huang 2013](#)). The modern design methods include abstract design, indirect expression, metaphor, and restructuring.

5.4.1 Abstract expression

Based on the particular design challenge of innovation of jade carving, designers are grappling with the determination of a proper design language for the sake of cognitive and design direction. There are two main directions for art practice: realistic and abstract art. Accordingly, the classification of realistic and abstract art design language can be very easily found in complex visualisation language. Even though comparable visualisation languages are also commonly discussed in jade carving, while forms of abstract art are relatively uncommon in jade carving. Therefore, abstract expression

becomes an essential and valuable manifestation of contemporary jade carving. If used properly, it may deliver more information than representational visual languages. For example, element extraction is common method in traditional symbolic images of jade carving. The charm of abstraction is to retain only the most simplified image, and to achieve resonance with the viewer. This nonetheless requires research into the details of the traditional patterns.

5.4.2 Indirect expression

Expression of thought in all branches of art can be either ‘direct’ or ‘indirect’. When direct it conforms with concepts such as mimesis, reflection, simulation and imitation; when indirect it engages in concepts like implication, message, association evoking and fantasy ([Kuloglu and Asasoglu 2010](#)). From the technical perspective, the secret of using this method that it does not highlight the object itself. Instead, with the help of analogy, symbolism or associations, the object delivers the theme or design purposes in a relatively unclear manner. Thus, indirect expression provides a broader imaginative space than that of direct expression. It often can be more accurate than the other artistic expression in design when it comes to conveying certain properties, ideas and thoughts.

Analogy, imagination and symbol are the most common forms of indirect expression. Analogy is a rhetorical device used to compare two things, which are alike in various respects. The elements for analogy are often the most familiar and understandable things or events for people. Otherwise, they are unable to resonate with the audience. Imagination relies on using a specific image to guide audiences to think and feel. Symbolism is the mutual combination and transformation of analogy and imagination. It is the most abstract method of artistic expression. As to the meanings of such expression, they are more implicative and obscure. Ideally image as a medium of symbolism, it should be easily recognised by the public. Otherwise, it will lose meaning of indirect expression .

5.4.3 Metaphor

Metaphor is artistic expression widely used in improving the expressive force of art and design. A metaphor uses similarity to connect two different things and to present ideas in a more understandable way by symbols. At the same time, it is also a kind of

rhetorical method - one image replaces another without changing the connoted meanings ([Zheng and Hu 2009](#)).

There are many ways to achieve metaphor, such as replacing or transforming small parts of the whole. In the design of image artistic expression, if the meaning of an image was transformed to another by an expression method, it gains additional potential to make the whole work become fresh and vivid. This is ingenious way to enrich the viewer's visual experience. Therefore, the artistic expression of metaphor helps to highlight the characteristics of things.

The design method of metaphor renders the meanings of the contemporary design flexible. The introduction of metaphor to the contemporary jade carving design will help designers to show their creative ideas better. During the design process, designers use the metaphorical method to express the connotations of the symbols in artwork through shape, colour, image and meaning. It provide the unique expression for designer and also helps more people to understand the designer's intention.

5.4.4 Restructuring

Restructuring is a process of extracting and decomposing to create new forms, features and attributes. Two prominent examples are isomorphism and allomerism. These concepts belong to graphic design, nonetheless jade carving is similar to graphic design in terms of the focus on form design. Graphic design principles and jade carving design concepts are connected. "Homogeneous and heterogeneous composition" in form refers to using the formation elements to break through the limitations of the original form. Then it is reassembled into a variety of new language forms and morphological characteristics. In jade carving design, the idea of homogeneous and heterogeneous composition impacts on many aspects of design, including shape, area, colour and texture. Usage of the restructuring approach in a design series means that the whole design changes and further evolution is needed to follow the design theme.

5.5 Summary

This chapter has investigated the various aspects and possibilities of jade carving design in the Han dynasty. Using the 'when tradition meets innovation' mode of thinking,

the discussion in this chapter focused on two parts: the tradition and the contemporary. The referential points that can be used in contemporary jade design from Han jade are comprehensive. From a traditional point of view, these comprise traditional theme innovation, colour choice, and material combinations of jade, and other materials. From a contemporary design perspective, these include theme creation, form aesthetic, elements design, simplification process, symbolic usage, and so on. These are the many different expressions of contemporary aesthetics. In addition, contemporary design principles (abstract expression, indirect expression, metaphor, and reconstruction) have strengthened contemporary artistic expression forms. The combination of traditional and contemporary aesthetics in different forms not only creates jade carving works for the times but also reveals their traditional Chinese cultural meaning.

In the next chapter, some practice-based demonstrations of design artworks will be shown and further discussion will be provided.

Chapter 6 Jewellery creative practice – let the past serve the present

6.1 Overview

Jade carving represents quintessential Han dynasty culture. It has a significant role in guiding contemporary Chinese jewellery design. As stated previously in chapters 3 to 5, Han dynasty jade carvings can act as references in many ways. Han dynasty philosophy is an invisible hand which manages the development and evolution of the Han jade carving. The thoughts and ideas of the philosophers of the pre-Qin dynasty are great resources for cultural inspiration today.

This chapter mainly focuses on the design and production of independent practical works, by means of reflective practice and its implementation. The main aims of the design and production of the series of practical works are as follows:

- (1) To re-visit selected Han jade designs and make newly designs accordingly.
- (2) To experimentally reveal the relationship between cultural connotations in traditional Chinese jade carving design and contemporary jade carving design.
- (3) To integrate traditions with modernity using two approaches: “traditional design + new material/production/technique” and “traditional technique + creative new design.”
- (4) To expand the influence and acceptance of jade works on the basis of preserving Chinese cultural connotations.

The practical work is based on the historical vicissitudes of the Han dynasty and the investigation of its artistic evolution. More than ten pieces of creative artworks are presented. As the philosophies of the Han dynasty have influenced the creation culture of China, I, like many other designers today, intend to reclaim and transform the originating Han context and design practices to inspire contemporary jewellery. The traditional jade designs are the carriers of oriental wisdom. Jade artists are now integrating the traditional design concepts with contemporary expression and processing techniques to achieve the simple, elegant and profound innovations of contemporary Chinese jade carving and jewellery. This oriental treasure has been brought into a new era of global art blending.

At the same time, jade jewellery holds appeal for modern youth and contemporary life. Therefore, it is also of great importance to further discuss the contemporary significance and development trend of jade in relation to the following aspects:

(1) The spirit of the times and the significance of contemporary jade carving design with Chinese cultural traits.

(2) The reference to traditional culture adds vitality to the contemporary jade carving.

(3) The significance of Han dynasty jade design culture and techniques to the evolution and development of contemporary jewellery design.

6.2 New designs of traditional Han jade

As mentioned in chapter 5, the newly design is based on the understanding of traditional modelling, and the transformation, refinement and application of some elements in traditional modelling with modern aesthetic concepts, so as to make them relevant to the times. It is the appropriation, renovation and transformation of the design form and image of Han jade carving. It is also a combination of the traditional theme and contemporary aesthetic.

6.2.1 Ideas inspired by traditional mouth-jade

The main reasons for creating a new design by referring to the mouth-jade unearthed at the Zeng Hou Yi Tomb are as follows; (1) mouth-jade is a unique design form of burial jade; (2) its design form and the thinking behind it have been deeply influenced by the Confucian and Taoist philosophies of the Han dynasty; (3) the relationship between animal elements and human civilisation.

The burial jade specification and quantity represent identity and grade. What is fully shown in burial jade is the far-reaching, top-down hierarchical influence of Confucianism.

The tomb of Zeng Hou Yi contained a lot of small mouth-jade pigs, horses and cattle and other animal-shaped burial objects (**Figure 35**) ([Jacobs 2012](#)). This conveys the symbolic meaning that the occupant of the tomb still has access to rich food in the afterlife. These jade works therefore not only represent the social funereal belief system of Chinese people under the influence of the Taoist thought in aspiring to ascend and

become an immortal, but also they show the national psychology informing the people's pursuit of life. This kind of design form has appeared under the influence of the cultural milieu.



Figure 35 Han burial jade animals, c. 400-200 BCE, discovered in the Zeng Hou Yi Tomb, Hubei Province, China. Image reprinted from Jacobs (2012).

The relationship between the animal elements of the mouth-jade and human civilisation is another aspect that has inspired me. As an agricultural civilisation, animal husbandry is of great significance in Chinese culture. Apart from the fact that animal husbandry was extremely important in civilisation's evolution and development, human beings also gradually began to use other creatures to conquer and transform nature. People used animal labour to strengthen the development of the economy and by extension their own lives. Over the long course of the development of human history, animals have had a close relationship with human beings, and they have influenced human existence and development profoundly. Poultry and other livestock are to some extent the architects of the progress of human civilisation. That is why the theme of animals and human beings has very often appeared in the artworks of countries that have originated in agriculture-based civilisations.

6.2.2 New designs inspired by traditional mouth-jade

As part of the creative production process, I referred to the design style of jade animals, specifically 'the six domestic animals', from the tomb of Zeng Hou Yi. These historical artworks highlight the simple and repetitive design form, which conveys an

overall grasp of the animals' morphological features and physical characteristics. However, this kind of carving form tended to be informal and neglected many details except for some features such as fish fins and bristles.

In order to cater to contemporary aesthetics, some changes have been made to the original design. Due to the fact that the function of mouth-jade is not as well known in contemporary society, I intentionally enlarged the size of the works for the purposes of wearing, play and appreciation. Following these design characteristics, a cylinder rough blank (a column core) jade was selected. The choice of the jade colour was also based on the jade carving works unearthed from the tomb of Zeng Hou Yi. The jade of a pale celadon-white colour was selected as the final material in order to emphasise the difference between the new jade and the ancient jade. In terms of carving, the modelling of effects accorded with the natural forms of the animal, such as the rounded contours of the pig or the squarer contours of the cattle, which remained identifiable even though there was exaggeration. The practical works were also reserved in selectively details, such as the pig's feet and tail. As illustrated in **Figure 36**, the final works are mellow and full of opulent beauty, which makes them seem more ornamental. The production process, from the sketch outlines on the jade to the semi-finished product photos, are presented in Appendix C.



Figure 36 Tian Bingrui, Handmade jade animal models, approx. 80 x 40 x 30 mm, 2016.

6.2.3 Summary

Traditional jade carving needs to be updated to adapt to the new environment and era. The purpose of such an update is to create new jade carvings that fit the current situation, rather than to make an update that is completely out of context. This was reflected in my chosen approach for making this practical work. My practical work of newly design try to show the expressive force and constructed image by analysing the design form of jade pieces unearthed from the tomb of Zeng Hou Yi and how the Han dynasty philosophy impacted on mouth-jade. At the same time, I started to think from a social perspective, specifically in regards to the relationship between the animal modelling design of mouth-jade and human civilisation.

There are a few things to consider when redesigning according to traditional mouth-jade unearthed from the tomb of Zeng Hou Yi: What are the animal models for “the six domestic animals”? What influences the design form and function of the works, and what modelling features do they have? What modelling features can be referenced and how can they be modified? This section seeks answers to these questions. Firstly, by considering the large number of animal modellings in Han jade, it can be hypothesised that these animals have great significance to people in an agrarian society. China has been an agricultural country since ancient times. Livestock, crops and harvest scenes were all welcomed by the people. Agriculture is the foundation of human existence, and it is the booster of civilisation. In China and other countries, agriculture has acted as an intangible propeller for cultural development. Therefore, the proliferation of “the six domestic animals” modelling elements is logical.

Secondly, the establishment of the design form and jade function was influenced by Confucianism and Taoist philosophy. The emergence of the mouth-jade was mainly influenced by the Taoist thought of ‘regard death as being alive’. The mouth-jade was placed in the mouth of the deceased and symbolised that they still had enough food to eat in the afterlife. At the same time, however, only people with some social influence or who belonged to a higher social class would have enjoyed this kind of funeral treatment. Such extravagant funerals were due to the adoption of Confucian hierarchy in the Han dynasty. Therefore, the design form and function of mouth-jade have resulted equally

from the impact of Confucianism and Taoism. It can be said that the cultural, social and philosophical factors are the main sources that have influenced mouth-jade design.

The mouth-jade unearthed from the tomb of Zeng Hou Yi is tiny in size (the size of rice grains and soybeans) and sparingly carved with extremely fine decorative patterns, such as the duck feathers and bristles. These jade carvings are simple in style, but the modelling of the animals are accurate. In the creation process, I believe that the visual language of animal modelling is the most important aspect, so the design is mainly aimed at expressing the modelling characteristics of animals by using simplified modelling techniques. The design of this series refers to the simple styling of the Han jade. At the same time, in accordance with contemporary aesthetics, the design works are more rounded, with the animal features conveyed in the engraved and carved details.

Apart from referring to the modelling of Han jade when making contemporary jewellery, another design object was also taken as a reference, that is, jewellery adornment worn in the mouth (**Figure 37**). The wearability of these kinds of jewellery is not the first thing that needs to be considered, but rather their conveyed emotions, expression of personal characteristics, and social functions. Suffice to say, the special function and wearing form of mouth-jade has also inspired other contemporary designers and artists.



Figure 37 Contemporary jewellery by Lauren Kalman (left) and Jinzhi Li (right), approx. 890 x 580 mm, 2006. Images reprinted from Pinterest (2015) and Fine Arts Center Gallery (2006).

6.3 Considering the concept of ‘form and spirit’

6.3.1 Inspiration from the concept of ‘form and spirit’

Taoism had a profound effect on the concept of form and spirit in Han dynasty, and its concept of ‘inspired by nature’ and ‘spirit transmission and meaning conveyance’ have made outstanding contributions to contemporary jade carving design, especially in relation to human and animal themes. The designers of the Han dynasty focused on mastering the overall feature and essence of the creative object, instead of emphasising the details. Therefore, Han jade works largely had simple and exaggerated forms with a few details. Given contemporary aesthetic preferences, the characteristics of animal-shaped jade carving from the Han dynasty have been largely applied in the minimalist design style. Animal-shaped jade carving works were popular in the Han dynasty. Those works only have a few carved details which summarise the key features, usually emphasising the animal’s eyes, as well as actions and postures that show the animal’s characteristics graphically (Western Han dynasty jade bear, see **Figure 38**) ([Sax 2004](#)).






Figure 38 Western Han jade bear, c. 200 BCE, China. Image reprinted from Sax et al. (2004).


6.3.2 Conception of ‘form and spirit’ artworks

High quality animal figures created from jade in Han dynastic history represent some of the most powerful sculptures of antiquity, created to embody and pacify the

elemental and supernatural forces of the living world. Animal elements jade carving in the Han dynasty occupies a critical role and has a high artistic status. Han dynasty animal carving design can be divided into two categories, namely, fowls and beasts. The following tables summarised the design characteristics and carving techniques of jade animal modelling.

Table 11 The fowl elements in Han dynasty jade carving.




Title of works	Han dynasty jade carving fowl element	Carving features
White jade bird		<p>Floating bird. The head, chest and abdomen are Z shaped. Round head, pointed beak, the forehead domed in a curve, thick neck and plump body. Wings spread out close to the body. A few parallel lines carved on the wings and short tail. The whole work has no carved decorative patterns.</p>
White jade turtledove		<p>Head slightly up, round eyes, pointed beak, long neck. The shape of the turtledove is curvaceous. Wings folded up. Wing feathers carved with a ribbed pattern. The tail engraved with linear lines.</p>
White jade phoenix		<p>Prostrate with spread wings. Decorated with cloud pattern, reticulation pattern and parallel diagraph lines. The tail is long and drooping, and engraved with linear</p>


		lines.
White jade turtledove		Prostrate with folded wings. Head slightly up, round eyes, pointed beak, short neck. Decorated with cloud pattern, reticulation pattern and parallel diagraph lines. The tail is long and drooping, and engraved with linear lines to show the feathers. Square pattern is carved on the lower part of the claws.

The jade bird figurine worked with a short sharp beak, the sides of the plump body detailed with a large pair of folded or spreaded wings. Integral modelling design is composed of basic form carving and fine carving. The basic form carving is presented with little or no decoration. The above works show the standard form of the birds. The modelling of the abdomen is smooth and slightly bulging, which makes the overall modelling round and concise. The carved parts of fine carving are mainly on the wings, heads and feathers. The main carving patterns are cloud patterns, reticulation patterns and parallel diagraph lines, all using the Han dynasty carving technique of You Si Mao Diao. The meticulous and vigorous engraving between the bird's head to the tail feather is balanced, and the ingenious modelling is a typical style of jade carving in the Han dynasty.

Table 12 The beast elements in Han dynasty jade carving.

Title of works	Han dynasty jade carving beast element	Carving features
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<p>Light greenish white jade sheep</p>		<p>The sheep looks forward. One front hoof raised. The carving is concise and vivid.</p>
<p>Light greenish white jade tiger</p>		<p>The tiger is crouching on the ground, head turned sideways, towards the viewer. Limbs tucked under the body and tail curled up. The body contour is carved using a few lines. The tiger's head is concisely carved, round ears set up, the eyes are piercingly bright. The appearance of the tiger is childish and lovely.</p>
<p>White jade Bi Xie</p>		<p>The mythical beast rendered menacing with the head held high and an open mouth baring its teeth. The horned creature depicted with S-shaped brows and ears detailed with scrolling motifs, the curved contours repeated at the archaic wings. On the head and both sides of the body as well as its back, parallel incised fine lines are carved into the hair. Tail is rolled up, showing a strong dynamic.</p>

White jade pig grip		<p>Jade carvings of pigs rendered with bold angular cuts and in reclining poses were made throughout the Han period and form an important group of jade carvings that were used both in daily life and for burial. Made in the so-called Han Ba Dao (Han eight cuts) style, whereby the design is created by a small number of deep cuts.</p>
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In the design aspect, minimalism and refinement are the main forms of the beast theme design. Han dynasty jade carving form is not a ‘sketch from nature’, but is often based on design methods of high generalisation and refined hyperbole that show the design concepts of ‘inspired by nature’ and ‘spirit transmission and meaning conveyance’. In addition, the animal forms have semiotic characteristics. Symbolic meaning is the most common form of expression in the Han dynasty jade carving. Many animals are given auspicious meanings. For example, sheep (Yang) means auspicious omen. Yang sounds very similar to auspicious omen in Chinese pronunciation, and this form of homophonic design is a very common method to connect animals with auspicious meanings in the Han dynasty jade carving.

In the carving technique aspect, the main technological characteristics of Han Ba Dao and You Si Mao Diao are clearly shown in **Table 12**. Han Ba Dao is a kind of jade carving technique based on making a partial inclination angle by using the Tuo. Tuo is a basic jade carving tool. The side edge of the Tuo grinds the jade as it is being carved. In doing so, the carved line marks will show both a deep side and a shallow side slope. This carving method of Han Ba Dao is suitable for expressing the sense of volume, and it can also create layering and convey a three-dimensional effect. On the other hand, You Si

Mao Diao is mainly used for expressing animal hair and extremely detailed parts. Therefore, the purposes of the two jade carving methods are completely different.

Han dynasty jade animal styling, the Taoist concept of ‘form and spirit’, and carving techniques are all interdependent. The concept of “form and spirit” influences the modelling style, the expression of romantic charm in a natural way, and the momentum of the design works. My design inspiration mainly comes from the concept of “form and spirit”. Analysing and summarising the basic design rules and techniques of jade animal modelling in the Han dynasty have been very useful, as they provide examples and inspiration for my own contemporary jade animal designs.

This collection of creative work contains a large number of jade model works. Therefore, this work requires advanced jewellery material classification skills and carving techniques. The initial preparation was based on the design sketches which were made into corresponding clay models. The material colours ranged from white jade to green jade, where the choice of the design theme determined the corresponding colour of the material. The clay model played a vital role in the cutting of the jade. It showed a complete three-dimensional reference that could ensure accuracy in the cutting process, and avoid unnecessary waste of the jade raw material.

6.3.2.1 Jade cattle

Cattle have a very high status and rich symbolic significance in Chinese culture, it is a symbol of diligence, forbearance and humility. Meanwhile, cattle is the second of the twelve-year cycle of animals which appear in the Chinese zodiac related to the Chinese calendar. Cattle, sheep and pigs are the highest level of offerings in ancient sacrificial ceremonies, which shows the high status of cattle in ancient China. Considering these semiotic meanings, I chose cattle as one of the design elements for this creative series. The chosen jade colour is also full of symbolic meaning. The dark green Qinghai Hetian jade shows the calm and restrained character of cattle and enhances the visual sense of volume.

The detailed processes of the jade cattle making are illustrated in the final artwork shown in **Figure 39** and discussed in the following paragraph. Semi-finished product photos are presented in **Appendix D**.

This piece shows the posture of a ‘pioneer cattle’ with round carving. The cattle is moving forward with its left hoof, head bowed and tail curled up. The modelling design is inspired by the movement of cattle and highlights their role in farming. The body contour of the design draws lessons from the Han Ba Dao carving technique. These cuts depict the muscle movements on the back and legs of the animal, thus highlighting the strong, layered and three-dimensional movement effect. The modelling of the cattle has been exaggerated, such as the towering back, brawny limbs and crescent-shaped horn. The animal’s body proportion was adjusted to emphasise its forward posture, so the proportion of the upper body was enlarged while the lower body was reduced. This work aims to shape the charm of the animal by using the appearance characteristics of the state of motion. This has been expressed with concise craft and goes beyond the natural forms of expression. Although this work is not realistic, it captures the dynamic and visual characteristics of cattle that highlight the artistic effect. The combination of these design methods provides more imaginative space for the viewer, despite the fact that the animal’s eyes are not depicted.



Figure 39 Tian Bingrui, Different views of the final artwork of the jade cattle, approx. 100 x 60 x 60 mm, 2016.

6.3.2.2 Jade swan

The swan is regarded as a symbol of purity, loyalty and nobility in ancient China. Following the jade bird carving style in the Han dynasty, my jade swan is in a prostrate position with open wings. The impressionistic carving style is mainly manifested in impressionistic modelling and the beauty of lines. This piece highlights the swan's graceful posture with a curved neck, open wings, and cleaning feathers. In producing this jade swan (**Figure 40**), white jade with batt-like texture was used as the wings. It can be impressive to use white jade with partly batt-like texture because this contrast highlights how the latter texture can convey the feeling of the feathers on the wings. In order to showcase the highly generalised design form, the traditionally carved patterns on the wings were simplified and generalised patterns were used to express the texture of feathers. Moreover, drawing on traditional hollow-out carving techniques, the hollowed-out parts of the s-shape of the neck and between the two wings make the whole work look natural and elegant.



(a) Final work of jade swan.



(b) Working processes, from left to right: model, cut and carve.

Figure 40 Tian Bingrui, Jade carving working process of the swan, approx. 80 x 60 x 20 mm, 2017.

6.3.2.3 Jade fish

Fish, in China, comes from a homonym that symbolises the abundance of life and the excess of wealth and food every year. Two pieces of jade carving works of fish (**Figure 41**) were made. One was designed according to the characteristics of the fish, and the other specifically in relation to the goldfish (**Figure 42**).

The modelling characteristics of the jade fish include: round eyes, mouth slightly open, two fins positioned backwards, and the tail is up. The fish eyes, fins and tail are carved using the You Si Mao Diao carving technique. The fish eyes emphasise the spirit in accordance with the concept of ‘form and spirit’.



(a) Final work of jade fish.



(b) Working processes (left to right): sketch, model, and carve.

Figure 41 Tian Bingrui, Jade carving working process of the fish, approx. 80 x 30 x 50 mm, 2017.

This design work shows the elegant curves and lines created by the flowing fins of the goldfish while it swim. The details of the body movement and the design of the scales are quite rich. The selected jade with water-like textures are further processed by the ingenuity design: the wave effect on the tail can be clearly seen when the piece is held up to the light and resembles fish swimming in water. This also echoes the Taoist design thought that ‘Nature and Human in unison’. Through clever use of the nature of jade, different design effects are produced.

The final artwork is presented in **Figure 42**. The semi-finished product photos are presented in Appendix E.



Figure 42 Tian Bingrui, Final artwork of the jade fish, approx. 80 x 50 x 20 mm, 2017.

Although both works are of fish, one was made from green jade and the other from white jade. The green jade fish appears simple and honest, whereas the white jade highlights the characteristics of the goldfish, using the material character and carved as thinly and as transparently as possible, to represent the scenario of fish swimming in the water. In addition, the depiction of the eyes of the green jade fish is emphasised, thus softening its appearance and the whole style, and only retaining the basic character of the fish without too much ornament and form.

6.3.2.4 Jade butterfly and bird

The butterfly has multiple meanings, and it can symbolise freedom and beauty. The ancients linked the butterfly to death, believing that death is not an end, but a deformity. Death may be interpreted as the releasing of the soul, just as a butterfly flies out of the chrysalis. This is in line with Taoist thought and the yearning for the afterlife.

The jade butterfly was designed to retain the original butterfly spread wings shape and omitted the body of the butterfly (**Figure 43**). Processing the butterfly wings by means of layering not only shows the modelling of the thin wings, but also separates the wings from the front and back. This form of streamlined design serves to communicate a sense of spirituality.



Figure 43 Tian Bingrui, Final artwork of the jade butterfly after polishing, front and back, approx. 80 x 80 x 20 mm, 2016.



Figure 44 Tian Bingrui, Jade carving working process of the butterfly.

The hummingbird is an industrious bird. The ingenuity in the design of this jade carving is in its function as a wearable ornament. This piece aims to highlight the small and exquisite hummingbird in flight (**Figure 45**). This design not only needs to consider the function of wearability, but also its aesthetic property. Thus, the hummingbird's wings are made as a bail, which means that one can hang and show the state of the hummingbird in flight.



Figure 45 Tian Bingrui, Jade carving working process of the hummingbird, approx. 50 x 30 x 10 mm, 2017.

6.3.2.5 Jade rooster

A crowing rooster is a symbol of darkness going away and light coming. The white jade made in the shape of a rooster (**Figure 46**), with a raised head and puffed-up chest and a short sharp beak between a low comb and large wattle. The tail feathers of the rooster are not designed to be realistic. There are not many details in the streamlined shape. The whole work looks like a complete object, and there are no cuts.



Figure 46 Tian Bingrui, Jade carving working process of the rooster, approx. 60 x 40 x 15 mm, 2017.

This series of works draws on the concept of the ‘form and spirit’ in Han dynasty jade carving. However, unlike the static form of jade animals in the Han dynasty, this

series of jade butterfly and bird works mainly conveys spirit through dynamic modelling. The animal form is designed with streamlined lines and represents a moment of movement.

The above animal shape designs are all associated with a particular spiritual or cultural aspect. This series is an example of successional jade culture. In Han dynasty jade modelling, the carving design adhered to Taoist beliefs and showed the ultimate concept of the universe and the concept of 'form and spirit'. What is ultimately revealed in these works of art, which are vivid in description, is inspired from nature.

6.3.3 Summary

This series of practical works demonstrated the Taoism concept of form and spirit can be reference into the contemporary jade carving design. As mentioned in Chapter 3, even though the form is the basis of the work of art, but if artists only paying attention to works with form will lose the soul of the spirit. On the contrary, if artists only focusing on works with spirit will lose the fun in modelling. Hence, it is the concept of form and spirit advocated by Taoism that plays a guild role to the artists who investigate the bilateral relations between form and spirit.

Simple designs tend to be more aesthetically pleasing. In order to highlight the balance between form and spirit, the Han dynasty jade carving often shows the simplicity in design. Hence, the form of simplicity is another major characteristic of jade carving in Han dynasty. In addition, Han dynasty craftsmen sought to create visual movement in limited space of jade carving. They use flowing lines, variable shapes and various colours to guide the viewer through the piece. Using jade modelling to reflect the visual movement is one of the characteristics of the Han dynasty jade carving, so the outlines of Han dynasty jade carving are very rough and bold. The craftsmen focus on the dynamic design of the jade carving, but getting rid of unnecessary details. For example, the pig-shaped jade grip has few carved details, however the whole work depicts the abstract animal shape with straight and curved lines, which can be recognised and allows people to associate it with the pig. This carved style embodies the minimalist style and visual movement of jade carving design in Han dynasty.

The concept of ‘form and spirit’, the form of simplicity and visual movement can be applied to contemporary design. It has extensive and universal significance. This series of works is based on the design characteristics and carving methods of jade carvings in the Han dynasty under the influence of the concept of ‘form and spirit’. This series focuses on the dynamic design and form of simplicity – pioneer cattle, spread-winged swans, swimming fish and flying hummingbirds. Collectively, highlighting the relationship between form and spirit of these design works by use abstract and simple modelling with few details.

6.4 Auspicious implications in jewellery design

6.4.1 Inspiration

Auspiciousness is explained as Xing (happiness in English) and Fu (good fortune in English) in Chinese, the combination of which means ‘propitiousness’ and ‘peacefulness’, that is to say, everything goes well with great satisfaction ([Sun 2010](#)). Auspicious culture grows out of people’s aspiration and pursuit of the happy life since ancient times. The main contents of auspicious involve ‘happiness’, ‘affluence’, ‘longevity’, ‘joy’, ‘wealth’, ‘safe’ and ‘health’. Mr. Zhang Daoyi, an artist on folklore, has ever boiled the content of auspiciousness down to ten Chinese characters including happiness, affluence, longevity, joy, wealth, auspiciousness, peaceful mentality, safe, self-cultivation and completeness of life. In order to reflect the auspiciousness, abundance of auspicious characters, mascots are created along with the auspicious folklore, decorations and patterns ([Zi 2017](#)).

Auspicious culture in the Han dynasty comes from religious concepts and superstitions. In the Han dynasty context, jade carving design have gradually become more secular with the development of auspicious culture. The jade carving design of the auspicious theme become inseparable from life. The auspicious culture of jade carvings in Han dynasty has a distinct philosophical value, which reflects the characteristics of life philosophy in traditional Chinese philosophy, such as the value of the existence of life (longevity and happiness), the value of the continuation of life (good for descendants), and the value of transcending life (thinking rationally about personality and destiny).

My practical work draws lesson from the auspicious culture of Han dynasty jade carving. Taking auspicious implication as the design theme, to show the positive attitude

towards contemporary life under the influence of auspicious culture. Meanwhile, as mentioned in Chapter 5, the combination of more materials and jade has become a necessary result of the development of jade carving. Precious metal is the most popular material in contemporary jewellery. Under the influence of contemporary aesthetics, this series of works combines jade and metal to show the aesthetic characteristics of the new era under the theme of auspicious culture.

6.4.2 Artworks with auspicious meaning

6.4.2.1 Jade persimmon

There are three reasons why I choose the persimmon as design inspiration. Firstly, the persimmon tree is a symbol of life. The life of the persimmon tree is very long, generally reaching over 75 years. Each tree usually produces more than 100 fruit annually. For this reason, the persimmon is also called longevity fruit. Secondly, the pronunciation of persimmon in Chinese is similar to the word ‘fine’. The red persimmon means that something good will come soon and may your matters be safe. Thirdly, the diverse colours of the persimmon correspond to the Five Elements theory of the Yin and Yang of Taoism. The five different colours represent different positions and meanings. They also represent the energy and motivation that dominate the running of the universe. I choose the various colours from white to red to show the fruits at different maturity levels. This implies the inevitable process of the circle of life from birth to death. In the persimmon works, we can see the moral concept of “maintenance of health and live longer”, the philosophical concept of Taoism and the characteristics of pursuing the truth, goodness and beauty of life.

The first task of the persimmon series was to find the appropriate colours of jade to present the different stages of maturity, and to make sure that the colour combination is not only harmonious but also able to communicate a sense of liveliness. The colour of the jade persimmons ranges from white to red. Two kinds of stones were chosen, namely, Hetian jade and Dongling jade. The carved jade persimmons have different shapes from round to elliptical, tall to short, and mellow to thin. The persimmon leaf is made of metal. The textural contrast between the jade and metal enhanced visual effects. The final

artwork is presented in **Figure 47**. Semi-finished product photos are presented in Appendix F.



Figure 47 Tian Bingrui, Final artwork of the jade persimmon, approx. 20 x 20 x 40 mm, 2017.

6.4.2.2 Jade vase

A bottle or vase can represent the meaning of ‘peace’ or ‘safety’ because both the character for vase and that for peace are same pronounced *ping* in Chinese. In the traditional design concept, the vase symbolises safety. It symbolises people’s auspicious desire to pursue a good life ([X. Li 2007](#)). The jade vase series shows a quiet and peaceful atmosphere because the symmetry form and calming colours. The use of metal enriches the visual language and transforms the function of the work from small sculptures to wearable items. Black nylon rope can be attached to the metal frame and makes the work become a wearable art piece. The final artwork is presented in **Figure 48**. Semi-finished product photos are presented in Appendix G.



Figure 48 Tian Bingrui, Final artwork of the jade vases, approx. 20 x 20 x 40 mm, 2017.

6.4.3 Summary

In order to reflect the auspiciousness, abundance of auspicious characters, mascots are created along with the auspicious folklore, decorations and patterns. Both the persimmon and vase collections represent the auspicious meaning of Chinese jade culture. These two series of artwork are definitely not enough to show all of auspicious implications. However, it can be argued that these two series are representative of luck and peace, and more specifically, how people deliver good intentions through the stones that communicate cultural value and spiritual support. This serie also illustrates and explains the inheritance of jade culture and the irreplaceable spiritual value of jade to the Chinese nation. From the aesthetic point of view, the asymmetric modelling, harmonious color combinations, and metal collocation bring new visual aesthetic experiences to the viewers.

6.5 New interpretation of Confucian etiquette artworks

6.5.1 Inspiration

My practical work try to find the connection bewteen anicent Confucian hierarchy and contemporary class. In my opinion, jade pei ornament sets and credit cards, to some extent, have something in common in terms of what they represent. The jade pei ornament sets is identified with Confucian hierarchy in ancient times, while credit card have same function for divide the class in contemporary context. Jade pei ornaments (**Figure 49**) ([X. Li 2007](#)) were very important among the nobles of the Han dynasty. Sun Ji proposed that the pracitical function of jade pei ornament sets was to limit the diatance of each step taken by Han nobility; their ritual function was to represent their status: the higher their status, the longer their body ornament sets were ([Linduff and Sun 2004](#)). By contrast, credit cards are symbols of the wealth pyramid, representing personal credit, social status, economic strength, spending power, credit rating, and so on. In modern times, although the ritual culture is no longer a political necessity, there are still some hidden class differences in daily life, such as credit cards which reflect the class hierarchy invisibly. Practical works are therefore needed to discuss the Confucian culture of class levels by analysing the associated ancient philosophical ideas.



Figure 49 Jade artwork under the influence of Confucianism, c. 200-400 CE, China. Image reprinted from X. Li (2007).

This series of works is a new discussion of Han dynasty jade carving in the contemporary context. The work design combined with the design form of the jade pei ornament sets and common pattern of credit cards. When comparing the jade pei ornament set series and the another series of practical artworks, the biggest difference is the carving technology. Different design types required different jade carving techniques. The CNC computer engraving technology, as a contemporary technology, has been widely used in the production of jade carving. The flat plane carving by CNC computer

carving can effectively shorten the carving time and increase the efficiency and quality of jade carving. Apart from provoking in-depth analysis of the cultural connotation of the Han dynasty, this series of works also aims to explore the role of new techniques in jade carving design.

6.5.2 Artworks with new interpretation of Confucian etiquette artworks

6.5.2.1 Jade Bi bull pattern

The thin, flat plaque is finely carved to jade ornament sets by manual carving technique in Han dynasty. However, the modern CNC digital engraving technology (see chapter 2 for more information) more suitable for making this work. In the first step, in order to see the complete effect of the works, a paper cutting was made using paper imprinted with credit card designs and based on the form of the jade pei ornament set (**Figure 50**). The second step was to search for and arrange the information on the credit cards. They were then accordingly divided into the black card, platinum card, gold card and classic card. The last step of preparation was to make a Photoshop prototype that combined the different types of information found on the credit cards with the individual modelling of the jade pei ornament set (**Figure 51**).



Figure 50 Tian Bingrui, Paper cutting based on the form of the jade pei ornament set.



Figure 51 Tian Bingrui, Photoshop design prototypes, approx. 80 x 50 x 5 mm, 2017.

Based on the Photoshop drawing prototype of the jade Bi (**Figure 52**), the two-dimensional drawing (image) was transformed into the three-dimensional engraving using Rhino. It was then put into the computer to finish the first CNC carving (**Figure 53**). During the first piece of jade carving, there are some problems between the jade carving machine and the design occurred because of a lack of understanding about the material. As a result, the first finished product did not achieve the desired effect of having two levels, concave and convex, with the raised part covering the concave part (with the concave depth of 0.3 mm and the carved numbers reaching the same height as the convex part, the total depth of the carving was 0.4 mm). The carving machine, however, cannot produce two different levels at the same height, resulting in a crack between the two levels (**Figure 54**). At this point, some changes were made in the subsequent design, which reduced the complexity of the works and the excessive details in the concave and convex layers. This avoided the reoccurrence of the cracking. After the CNC carving, the left parts need to be finished by hand to cut the unwanted parts and polish the bottom of the jade Bi (**Figure 55**).



Figure 52 Tian Bingrui, Photoshop design prototypes - Bull (C. Li 2011).



Figure 53 Tian Bingrui, CNC drawing and CNC carving.



Figure 54 Tian Bingrui, The crack on the jade Bi.



Figure 55 Tian Bingrui, Cutting the jade Bi and polishing the bottom of the jade Bi.

To avoid cracking during the carving of the piece, another solution method was carried out: carving the patterns on both the front and back sides on the very thin jade plaque (light can pass through). The front side was carved with raised numbers and words. The back side was engraved with a bull pattern. A light was used to show the transparent effects of the jade piece so that people can see the back of the design, and to achieve the effect of the double-sided patterns overlapp each other. However, the depth of the carved back patterns needed to be deeper. In order to achieve a better effect for the overlapping front and back patterns, the carving depth was set at 0.7 mm. However, because the jade was too thick and depth limitation of the CNC carving machine, this design method did not achieve the desired effect that allowed both sides to show (**Figure 56**).



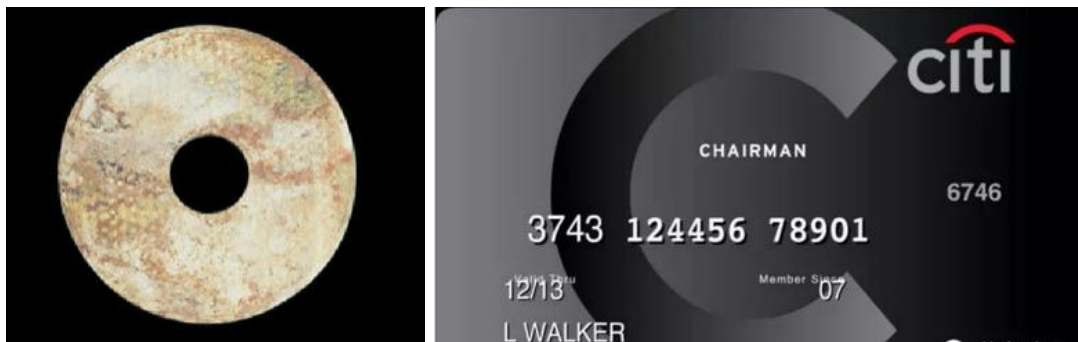
Figure 56 Tian Bingrui, Two sides of the jade Bi, approx. 40 x 40 x 5 mm, 2017.

6.5.2.2 Jade Bi C-shaped pattern

The second piece in this series incorporated improvements based on the lessons learned from the first piece. The connected parts in the design were separated manually (**Figure 57** and **Figure 58**). Moreover, the depth of each jade part was also reconsidered due to the depth limitation of the CNC carving machine. The ‘C’ shape as the main part was set as 0.7 mm in depth and 0.5 mm in depth for the word “citi”. The other parts of the text were all 0.3 mm in depth. Compared to the previous design with a depth of 0.4 mm, 0.3 mm was more conservative and did not easily crack.



(a) Final Photoshop work of the C-shaped jade Bi.



(b) Two raw elements of the C-shaped jade Bi artwork.

Figure 57 Tian Bingrui, The re-designed jade Bi prototype.



Figure 58 Tian Bingrui, CNC drawing and CNC carving.

6.5.2.3 Jade Huang carving

In the process of making the jade Huang, which includes a calligraphic element, the format of the original prototype was changed in order to accommodate the calligraphic part (**Figure 59**). Information pertaining to the calligraphic element was entered into the computer so that the calligraphy could be traced (**Figure 60**). After the CNC carving was completed, the remaining parts needed to be finished by hand to cut off the unwanted parts (**Figure 61**) and the final work was presented in **Figure 62**. The making processes and photos are presented in **Appendix H**.

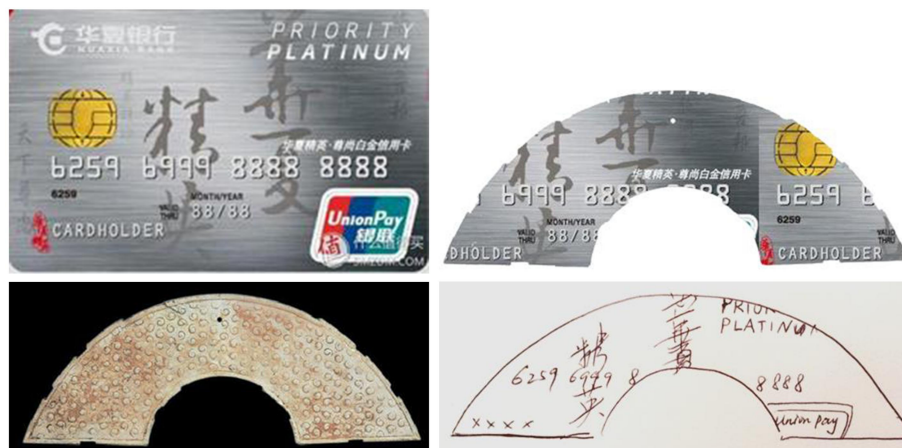


Figure 59 The re-designed jade Huang prototype.

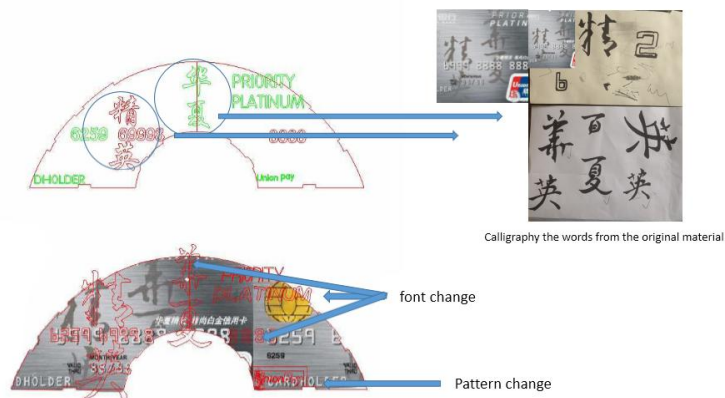


Figure 60 Tian Bingrui, The re-designed calligraphic part.



Figure 61 Tian Bingrui, Cutting the unwanted part of the jade Huang.



Figure 62 Tian Bingrui, Final work of imitation antique polished jade pei ornament set.

6.5.3 Summary

In this artwork, contemporary CNC carving technology played a key role in the making of the fine structures. The development of contemporary new technologies has created more possibilities for jade carving. Jade can be incorporated with new science and technology, such as jade made into intelligent jewellery or electronic (optical) jewellery. The current type of intelligent jewellery can be defined as wearable smart jewellery. It is different from traditional jewellery, which is a kind of “core” product. In addition to traditional materials, precious metals and stones, and even anti-traditional materials, such as wood, silica gel, paper, plastic, and so on, are sometimes used in contemporary jewellery design.

6.6 Conclusion

Traditional jade culture still has great vitality in modern times, especially on design art. My practical works are based on the three mainstream philosophical schools of the Han dynasty, namely, Huang Lao thought, Taoism and Confucianism. Even though superstition and divination ideologies had impacted on the jade design conceptions by the end of the Han dynasty, they did not turn Han jade carving into a chaotic state. On the contrary, they naturally added various new forms of art and design, thus enriching the performance and communicative qualities of the jade carving design of the Han dynasty.

The practical works divided into four themes: firstly, the new designs based on the traditional jade carving of animals, the burial jade form and Huang Lao thought were completed; Secondly, the concept of ‘form and spirit’ in Taoist doctrine was extensively referred to the artistic design. The second series of work focused on the depiction of the form and spirit. A series of different products were designed and produced representing the complex relationships between form and spirit. Thirdly, auspicious culture shows in the third series and new material combination with jade create a new visual effect. Lastly, through the understanding of benevolence and ritual in Confucianism, the relationship between class attribute and human behaviour was discussed. All of these approaches include a modern understanding of traditional design concepts along with a contemporary interpretation of traditional philosophy.

The four series of creative productions can be understood as four design directions, which may be summarised as follows. Firstly, this chapter lists and analyses some representative designs of jade animal elements in Han dynasty, summarises the design rules of jade animal elements, and interprets the concept of ‘form and spirit’. Secondly, the chapter considers the application of the carving techniques of You Si Mao Diao and Han Ba Dao as the quintessence of the jade carving in the Han dynasty. They complement each other and represent the aesthetic height of the Han dynasty jade carving. These carving techniques are also important foundation for the innovation of contemporary jade carving. Thirdly, the combination of new materials and jade carving creates fresh possibilities and new conditions for the contemporary aesthetic design of jade carving. Last but not least, the use of new carving technologies and techniques accelerates the development of jade carving design.

The combination of traditional form and contemporary aesthetics is necessary for transforming contemporary jade carving. In terms of creation, contemporary jade carving can transfer traditional thinking or artistic forms into the current era by means of direct reference and indirect reference, which is already happening in society. The motivation here is to find more traditional and contemporary combination points leading to breakthroughs in using and learning from the traditions. The influence of the mainstream philosophies of the Han dynasty on contemporary jade art is strong evidence of this interrelationship. The philosophies of the Han dynasty have been handed down to the present day. This means that contemporary society still supports the ideas of traditional philosophies. These ideas, to a certain extent, create a culture of art creation. Thus, designers should ‘re-understand’ traditional ideas in a new way. The combination of cultural connotation and contemporary aesthetics that hides behind these ideas is always the most recognised mode of innovation.

Chapter 7 Conclusion

This study analysis the cultural background of the Han jade carving through an interdisciplinary approach. Along with the examination of the political, economic, philosophical and cultural phenomena of the Han dynasty, this thesis has explored the influence of all those aspects on the Han jade carving shapes, ornaments and functions. The design ideas of Han jade were expressed through the diverse usage of implements, decorative patterns, images and symbolisation. Overall, the Han dynasty jade carving reflects the two-way interaction between social philosophy and artistic design.

Han dynasty jade carving is deeply interrelated with the cultural and historical background of the dynasty. This thesis were introduced and discussed the key mainstream philosophical systems that have impacted on Han jade carving design, including Confucianism, Taoism and mystical thought. The emergence and development of these different philosophical ideas were influenced by the social background of the Han dynasty. The rich cultural meanings of Han jade carving and how they have inspired contemporary art design were analysed through a comparative study between different aspects of jade design.

In order to explore effective methods to mix tradition art and contemporary aesthetics, the practical work drew on the design principles and forms of Han jade. As mentioned in chapter 6, the works were designed based on four directions, which is newly design, the “form and spirit”, auspicious meaning, and new interpretations of Confucian etiquette. My final works also combined tradition with modern design principles (abstract, metaphor, reconstruction, and so on) to achieve the goal of innovation.

7.1 The essence and core of jade culture in the Han dynasty

Jade culture in the Han dynasty, as an important part of Chinese traditional culture, carries rich religious, moral, political and cultural connotations. The essence and core of Han jade culture are as follows:

(1) Comparing jade to virtue

Confucianism had a deep influence on jade culture and the function of jade ware. Han jade had a wide application that ranged from decorative adornment in life, to serving

as funeral ware and symbolic items used in the afterlife, and gradually expanded to the country's political, religious, economic and cultural fields. With the development of Confucianism, the ancient Chinese jade culture went through a period of standardisation and theorisation, and eventually became an independent and complete cultural system. The main embodiment of Confucianism in jade culture is moral culture. Confucian patriarchal thought was central in forming the feudal ethical system of 'the principle of feudal moral conduct' and building the theological system of the 'unity of man and nature'. Confucianism mainly affected Han dynasty jade carving through its concept of hierarchy, as seen in the hierarchical levels of burial implements design and the moral concept of comparing jade to virtue.

(2) Auspicious culture

Auspicious culture is an eternal theme of Chinese traditional culture and an important part of the humanistic spirit. It is characterised by religion and folklore in jade carving design. The religious nature of jade carving is embodied in the ideal of 'avoiding evil and praying'. Folklore was increasingly systematised and became foundational in jade culture. The auspicious culture of jade carving in Han dynasty reflected an important belief of the people, specifically that material life can satisfy the desires of the spiritual soul. This cultural psychology was reflected in the jade carvings of the time.

(3) Equal emphasis on Confucianism and Taoism

An important characteristic of the jade culture in the Han dynasty is the exchange and integration between Confucianism and Taoism. On the one hand, the fusion of Confucianism and Taoism is mainly embodied in the cultural connotation and practicability of jade. On the other hand, many designs of jade carvings in the Han dynasty reflect both the Confucian doctrine of the mean and the romantic style of Taoism. The practicability of jade was gradually valued with the development of society. The practical value and significance of jade carving were greatly improved in Han dynasty, and it became a unique scenery of Han culture and carried forward.

7.2 Main findings

In the background research, Han jade carving design was found to have been greatly influenced by many aspects of Confucianism, Taoism, and other schools of thought. The

major influences of each philosophical system are summarised below. Confucianism attached spiritual meanings to Han jade carving. Under the influence of Confucianism, jade was regarded as closely related to the spiritual world, social behaviour and moral sentiment, which could show the character, sentiment, temperament and manners of the wearer. It was believed that jade's ethical value was higher than its aesthetic and artistic value. Ethical order and virtue were reflected in the jade carving design.

Taoism introduced romanticism to jade. The Taoist concept of life and death in the Han dynasty (and the belief in immortality) accelerated the creation of the style that combined realism and romanticism in Han dynasty jade carving. This conception of 'form and spirit' was an important result of the mutual impact of romanticism and realism. With such a cultural conception, jade was believed to be derived from the medium of 'life'. Under this concept of life and death, unique design themes and functionalities were developed, which in turn opened a new understanding of jade carving design.

Jade took on more secular purposes under the influence of superstitious beliefs. Jade in the Han dynasty gradually broke away from the religion and the etiquette system. This showed people's yearning for a better life, and peace. This way of thinking resulted in the development of the auspicious culture in jade carving.

The characteristics of jade carving in the Han dynasty provide a paradigm for contemporary jade carving. The features are vivid modelling, ingenious design, sophisticated production, exquisite materials, mature carving technology, and rich artistic expression. These characteristics became the referential aspects of Han jade traditions to contemporary jade carving design. They can be summarised in the following points.

(1) *Everlasting traditional themes.* Han dynasty jade carving provides a rich resources for contemporary jade carving design, especially the traditional design themes. Themes of jade carving in the Han dynasty cover virtually every animate and inanimate object known, including legendary figures, birds, animals, stars, clouds, mountains, rivers, trees, grass and flowers. Superficially, Chinese jade carving technique belongs to the realistic school as its portrayal of flowers, birds, and figures and vividly visible. However, contemporary jade carving design can be referenced traditional design themes and modern artistic expressions, such as, realistic, abstract, or impressionist schools. The

mix of traditional jade carving design theme and contemporary artistic expression can be create new visual effect of contemporary jade carving.

(2) *New themes and elements for jade design philosophy.* The philosophical concepts of design have created new vitality for jade carving art. The forms and themes of the jade carvings in the Han dynasty were derived from different philosophical thoughts. For example, the Confucian ethical system created the sacrificial vessel for sacrifice to heaven and earth. Under the influence of the hierarchical thinking, a specific form of jade carving design was developed, as well illustrated by the jade pei ornament set. Therefore, in the contemporary jade carving design process, the creation of new themes can start from the contemporary cultural background, or a new understanding of traditional philosophies.

(3) *Multiple choice of wearable functionalities.* In the Han dynasty, jade functionalities were transformed from sacrificial (furnishing articles), funereal (including mouth-jade, hand grips, and jade clothing), to secular (for wearing). Jade functions gradually evolved from religious purposes to human body ornaments with the development of Han dynasty context. Some interesting jade function can be referenced into the contemporary jade carving, such as, mouth-jade, jade mask, and jade plug. Contemporary jade has wider range of wearable functionalities, depending on the purposes and the form of design. The multiple choice of wearable functionalities of Han dynasty jade carving extend the scope of contemporary jade design.

(4) *The auspicious design ideas and symbolic meanings.* Jade objects have always been symbols of the good and beautiful. The auspicious elements associated with symbolic meanings, which include peace, longevity, wealth, promotion, and so on. For example, in the case of bats, or bian fu, the second character (*fu*) is synonymous with the Chinese word for wealth, and thus became a natural theme of jade carving. The truly deep meaning of the works, however, comes from the borrowing of names for the pronunciation of object ([Zhang 2004](#)). The implied meaning related to homonyms is crucial in comprehending Chinese expression ([Hsieh 2013](#)), especially auspicious meaning works. Therefore, the homonyms technique can be create contemporary auspicious design language.

(5) *An emphasis on the relationship between form and spirit.* The concept of ‘form and spirit’ is a traditional philosophy of Taoism, as well as a useful means of expression in jade carving art. The primary and secondary relationship of the form and spirit can be applied to the design of the jade animals or figures theme. In contemporary jewellery design, regardless of whether it is abstract or concrete, the proportions of the form and spirit expression may be changed according to various design themes. The flexible use of the concept of ‘form and spirit’ could introduce vivid visible to the design works.

(6) *Simplicity.* Carving in high relief in a simplicity, naturalistic and vigorous style was the force of Han jade. The minimalist artistic style that can be learnt by contemporary jade carving. The simplicity not only represent on the design form of jade carving, but also reflect on the carving techniques. For example, the mouthpiece cicada and the pig, are highly stylised with only a few deep lines incised in strategic places.

(7) *Multiple materials assortment.* The jade suit sewn in the Han dynasty was found to have also included gold thread, silver thread and silk thread. From the perspective of materials assortment, it provides direct practical guidance for the collocation of jade and other materials. Therefore, contemporary jade carving designers can try to combine jade and other materials to obtain different aesthetic experiences. This is also demonstrated in practical art design works.

(8) *Han jade carving techniques.* The value of a jade object depends both on the quality of the jade material and the level of the carving techniques. The representative of Han dynasty jade carving techniques are Han Ba Dao (Han eight cuts), You Si Mao Diao (hairline incisions), metal inlaid jade, Zhuilian technique, round carving and hollow out carving. These jade carving techniques are the fundamental of the contemporary jade carving technique. The integration and comprehensive application of Han dynasty jade carving technology can make contemporary works to achieve a refined artistic realm.

(9) *Unity between heaven and humanity and the ingenious carving on jade.* Combining with the natural features of stones and exquisite design, this is the unity of heaven and humanity. The wisdom of ancient jade carvings is embodied in following nature. The ingenious carving is craftsmen design elaborately and carve and polish the jade repeatedly in accordance with the natural colour and shape of the jade materials of various kinds. Thus, it is a good method to create the contemporary jade that the subject

and carving method are determined by the jade materials accordingly, and in particular, the colours of jade are utilized ingeniously.

The above summary is the most representative artistic features of jade carving in Han dynasty that can be used for reference by contemporary jade carving. Contemporary jade carving innovation is based on many aspects, it includes the theme, form, style, carving technology and other aspects. Thus, the use of tradition is not a single issue. As mentioned in chapter 5, the fusion of traditional Han jade design features and contemporary artistic design expressions is the key to create a rich contemporary aesthetic jade carving works, for example, abstract expression, indirect expression, metaphor, and restructuring.

Contemporary jade design is diverse in orientation. In practical terms, it needs to consider how to integrate the essence of traditional Chinese jade culture with contemporary life, and to try to use various forms of expression to create jade carvings with contemporary cultural ambience and artistic aesthetics. On the one hand, the cultural value of jade carving art is diverse. From the perspective of ideological connotation and cultural identity, the traditional ideology and culture of ‘jade virtue’ is still the ideological material for contemporary jade carving. In terms of image and form, the graphic symbols, modelling elements, emotional expression and spiritual appeal of Chinese jade carving art are still the cultural genes of contemporary jade carving art creation. On the other hand, the rich cultural images and deep cultural psychology accumulated in Han jade have also become the spiritual inventory for contemporary Chinese jade carving art to draw lessons from. It is the most direct way to interpret the jade carving art culture of the Han dynasty from the contemporary perspective, and draw contemporary elements from this ‘traditional art gallery’.

7.3 Future work

Contemporary jewellery design that is inspired by Chinese traditions would surely gain additional vitalities, not only in terms of form and expression, but also in terms of its spirit and social meanings. The contemporary market is becoming more and more isolated. Each market is growing with a particular demand on different aspects of jade carving. In future work, it would be of considerable significance to further combine the

traditions and contemporary jewellery design in order to deliver more practical jade carving design works while trying to meet the market demands, both in terms of aesthetics and product values.

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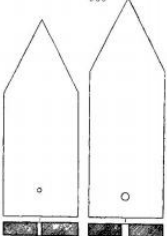
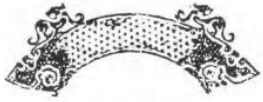


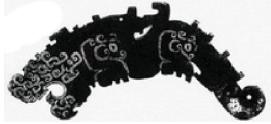
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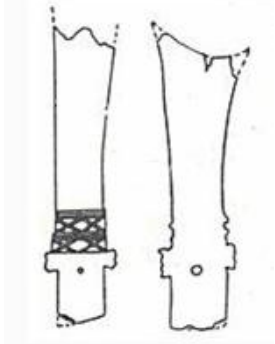
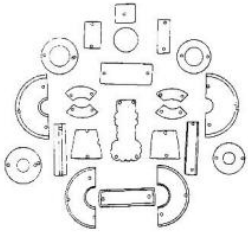
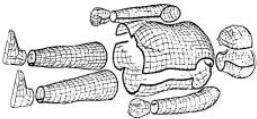

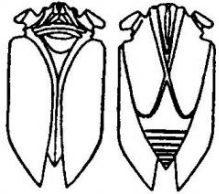
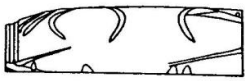
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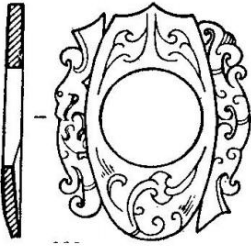


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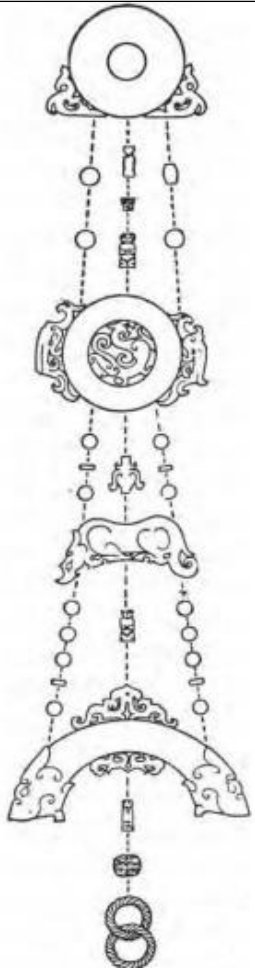

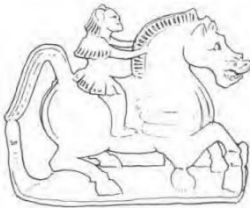

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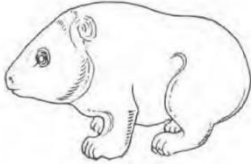
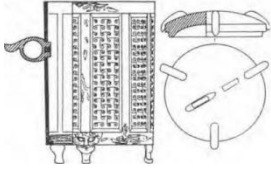
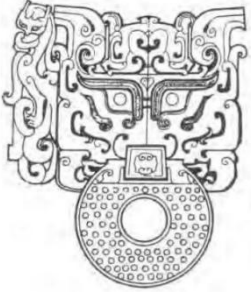
**APPENDIX A ILLUSTRATION OF THE MAIN TYPES OF HAN DYNASTY
JADE CARVING**

Illustration of the Main Types of Han Dynasty Jade Carving			
Ritual Jade	Name	Illustration	Basic Features
	Jade Gui		The basic features are triangle at the top, rectangle at the bottom; different sizes; mostly plain; and a hole in the middle of the bottom.
	Jade Huang		The basic characteristics are narrow arc or semicircle with decorative patterns; it is a ritual jade hanging ornament.
	Jade Bi		Round hole in the middle of the flat round jade; rich surface decoration; decorative techniques are diverse.
	Jade Cong		Cong is a flat, short, square cylinder with a hole in the centre.
	Jade Hu		The basic characteristics are narrow arc with tiger-shaped jade carving.







	Jade Zhang		The basic features are sword-shaped jade carving of different sizes; mostly plain or simple patterns; and a hole in the middle of the bottom.
Burial Jade	Jade Face Mask		It is composed of several pieces of jade similar to human facial features according to the size and shape of the human face.
	Jade Suit		Jade suit and human body structure scale are same. Jade suit consisted of different shapes of jade pieces and connected by gold, silver, and copper wires.
	Jade plugs for the nine body orifices		Jade plugs for the nine body orifices placed in the dead person's ears, eyes, mouth, nose and five other orifices.
	Jade Han		Objects placed in the mouth of the dead.
	Jade Grip		An object in the dead person's hand.




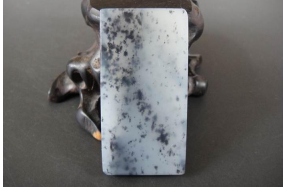
<p>Jade Accessories</p>	<p>Jade She</p>		<p>The main body is oval, the upper part is pointed triangle, the middle part is round hole, the front part is slightly bulging, the back part is slightly concave, one side or two sides are fully carved. For archery in ancient times, it was worn on the right thumb as a hook string tool.</p>
	<p>Jade Dancer</p>		<p>The basic feature is a long-sleeved dancing human figure; waist is slightly bent. Most of these objects can be suspended as ornaments or accessories.</p>
	<p>Jade Huan</p>		<p>The basic characteristic is a circle with animal-shaped carvings.</p>

	Jade Zu Pei		The basic features are composed of many jade articles in a series, with jade Huang as the main body, which is decorated by hanging jade.
Decoration jade	Jade Human Figurines		A variety of human postures with round sculpture.
	Jade Horse		The basic horse form or the horse with wings.
	Jade Eagle		Eagle-shaped jade carving.





	Jade Bear		Bear-shaped jade carving.
Jade Utensil	Jade Zhi		The basic features are cylindrical shape with three legs, a round wrench and a lid.
	Yu Fu Shou		Yu Fu Shou is a door decoration. The shape is rectangular with a round hook.

APPENDIX B PHOTO EXAMPLES OF HETIAN JADE


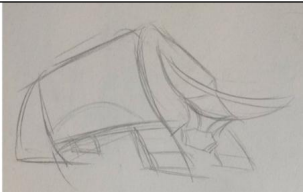




Categories of Hetian Jade	Nephrite Classification	Material Photo Examples
White Jade	Mutton-fat jade (Yangzhi jade)	
	Green White Jade (light blue, powdery cyan, grey-white)	
Yellow Jade	Deep Yellow	
	Chestnut Yellow and Sunflower Yellow	
	Egg Yolk Yellow Tiger Skin Yellow	
Green Jade	Light Green Jade Deep Green	
	Grey Jade	


		
Black Jade	General Black Jade	
	Partly Black Jade (Ju Mo)	
	Point Black Jade	

APPENDIX C PROCESS PHOTOS OF JADE ANIMALS






Process	Graphical Representation
Material selection	
Sketch on jade	
Refining and development	
Cutting the jade	

APPENDIX D PROCESS PHOTOS OF JADE CATTLE






Working Process	Graphical Representation		
Inspiration			
2D sketches			
3D prototypes			
Material selection			
Sketch on jade			
Refining and development			

<p>Cutting the jade</p>	
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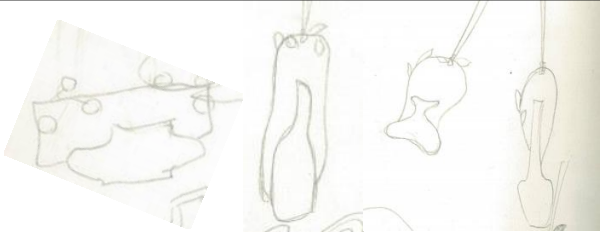


APPENDIX E PROCESS PHOTOS OF JADE GOLDFISH

Working Process	Graphical Representation
3D prototypes	
Material selection	
Sketch on jade	
Refining and development	
Cutting the jade	












APPENDIX F PROCESS PHOTOS OF JADE PERSIMMON

Working Process	Graphical Representation
2D sketches	
Material selection	
Practical work process	
	
	

APPENDIX G PROCESS PHOTOS OF JADE VASES

Working Process	Graphical Representation
2D sketches	
Practical work process	
	

APPENDIX H THE DESIGN PROCESS OF JADE PEI ORNAMENT SET SERIES

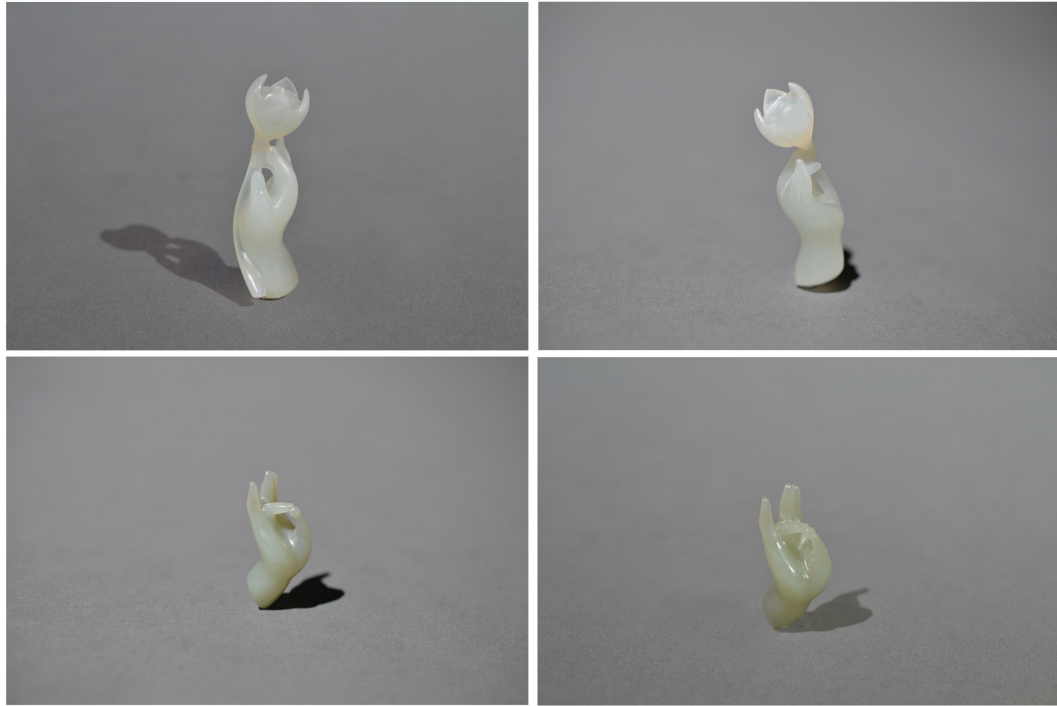
Name	Photoshop prototype		2D sketches	CNC Carving	Final Products
Jade Dancer					
Jade Huang					
Jade pattern					

APPENDIX I SUPPLEMENTARY PHOTOS OF PRACTICAL DESIGN ARTWORKS

This appendix collects further jade carving practical artwork photos, including the Taoist Tai Ji patterned jade watch (**Supplementary Figure 1**), and jade hands (**Supplementary Figure 2**).



Supplementary Figure 1 Taoist Tai Ji patterned jade watch



Supplementary Figure 2 Exquisite jade hands

APPENDIX J LIST OF PUBLICATIONS, EXHIBITION AND SALON

1. Publications

Bingrui Tian. 2016. “Yin-Yang and Five Elements – The Core of Han Dynasty Jade Carving Design Ideology.” *China Gems and Jades* 6: 138–41.

Bingrui Tian. 2016. “The Concept of ‘Form and Spirit’ in the Han Jade Carving Design.” *China Gems and Jades* 5: 149–54.

Bingrui Tian. 2015. “Analysis on the Artistic Communication Mode of Contemporary Jewellery.” *China Gem News* 9.
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Bingrui Tian. 2015. “The New Mode of Jewellery Marketing in the WeChat Era.” *China Gems and Jades* 9: 62–65.

2. Exhibition

Excellent Youth Jewellery Art Invitational Exhibition – “Rong”, Shenzhen, 2016.

3. Academic salon

Shenzhen Jewellery Culture Design Week, Shenzhen, 2016.