Time and Space Reconstruction: Teaching Research to Inspire Students’ Imagination and Creativity

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Abstract
As a kind of formal conception, time and space reconstruction reflects painters’ free imagination and creativity. The key to teaching using time and space reconstruction is to develop students’ imagination, inspire their creative potential and cultivate them into creative artistic talents.

Key words: Imagination, Creativity, Time and space, Reconstruction

INTRODUCTION
Painting is a means of expression of people’s understanding of the world. Finite as men’s lives are, their exploration into the world is infinite. What realistic painting, which is based mainly on the theory of imitation, explores is the real objective world. The generated perspective, optics, chromatics, anatomy, etc. are results of artists’ exploration of the world. As reproduction of nature is stressed, imagination and creativity of painters are restricted. Different from realistic painting which is mainly based on theory of imitation, time and space reconstruction “reveals world-wide truth learnt by the subjectivity rather than objectivity universe recognized through science. It speaks of a world for people, a world seen internally and a world which cannot be duplicated”.

(Dufrenne, 1985, p.278) It is against the order of nature and logic of science with no intention to loyally represent the nature. Through painters’ individual exploration of world order and structure, painter’s inner world and human beings’ exploration of the unknown world is represented. Compared with realistic painting, time and space reconstruction enjoys more freedom. Human beings have powerful spiritual power and infinite imaginary space. Free imagination in inner world makes it infinitely possible for painters. For artists, “To creating artworks is to create the world”. (Kandinsky, 1999, p.289) The creativity of artists gives full play in free imagination. Time and space reconstruction drawings are a reflection of free imagination and creativity of artists. Time and space here is “not subjective and rational concepts, nor property of objective things or priori of cognition which is perceptual and intuitive; here space and time is sentient: its spreading or pause, existence or vanishing are closely connected with sentiment, which includes human beings’ conquest and surpassing of physical world as well as human beings’ free feeling and imagination”. (Li, 1999, p.270) Time and space reconstruction is a kind of new formal conception. When artists are seeing the world with a new formal conception, completely new visual experience is brought to us at the same time. When artists are using their imagination, our imaginary spaces are expanded, too. Creativity is brought by construction of time and space renovated our existing visual experience and made us shocked and surprised during our watching. Time and space reconstruction is a reflection of artists’ creativity, leap of imagination as well as the paradise of spiritual freedom.

1. CREATIVITY INSPIRED
The purpose of our research on time and space reconstruction painting in teaching is to develop students’ creativity and imagination, manifest their awareness
of creation as subjects and avoid banal repetition. As innovative talents are required in our society, it is particularly important to develop creativity of students. Creativity is inseparable from imagination. Airplane would not be invented without human beings’ imagination to freely fly in the sky and there would be no artificial intelligence without imagination to imitate the complexity of the human brain. Miguel Dufrenne once said: “The whole world is imaginary… it was always referred to as an anticipated possible world… to be closely connected with the perceived object. Only imagination can separate the object and natural background and connect itself with inner realm”. (Dufrenne, 1985, p.82) Einstein also said: “Imagination is more important than knowledge. Knowledge is limited, but imagination can sum up everything in the world. Imagination promotes the progress and it is the source for knowledge evolution.” (Xu et al., 1976, p.284) Time and space reconstruction are a reflection of Creator’s freedom in imagination, which is an exploration of the infinite inner world. In long time exam-oriented education system, students usually have strong inertial thinking, memory visual thinking and logical thinking abilities. To imagine an apple, the first reaction of most people would be round, red and sweet. Is there anything else? Could prove to be in any other shapes except for being round? Is the color necessarily red or green? Is the taste necessarily sour and sweet? Thinking of questioning mind, and you will find that there are actually multiple possibilities for objects. In paintings by Leonardo da Vinci, the apples we see is fruit of wisdom which shapes Adam and Eve’s sense of shame; in Cezanne’s paintings, apples are shape symbols; in paintings by Magritte, apples can be sentient images fully covered in cracks and sadness, and they can also be pent-up images with metaphorical space which fill the entire room; Newton discovered universal gravitation through apple…imagine with divergent thinking and reverse thinking, we will see that our world is not what we previously saw, rather, it is full of novelty and terra incognita. Our education for students shall be conducted through guidance in a student-centered way. What teachers do be based on respecting students’ individual awareness, as individual awareness is different for each student, then their imaginary world shall also be different. Teaching time and space reconstruction is to develop students’ imagination, activate their creative potential and make students to see and think about the world from a unique perspective.

2. METHODS OF TIME AND SPACE RECONSTRUCTION

Time and space reconstruction painting borrows the technique of expression of surrealism painting. There are 2 kinds of surrealism: one is inward expression, represented by Dali and Magritte, that is, to create a kind of illusory and dreamy scene to express suppressed subawareness of painters in memory, dream and reality through recognizable, reconstructed images and scenes. The other kind of surrealist painting is outward exploration, represented by Miro and Masson. It expresses human being’s research on the universe, nature, life and other abstract forms, the image of which is abstract. In our teaching, we advocate students’ using the first kind to set about imaginary creation with recognizable images and avoid going extremes of abstraction. The use of surrealism made image of painting exquisite and real and the scene absurd, ridiculous and novel. Art was upgraded from “accidental” and “abnormal”, thus producing a fairy and fantastic effect. World created by time and space reconstruction is subjective.

To get rid of monotony in daily life and the wish to seek shelter in a world filled with images created by us is the most powerful motive… we attempt to create reasonable image of world where we feel at home and acquire a kind of peace which we could not achieve in our daily lives. (Xu et al., 1976, p.285)

In time and space reconstruction, “time” refers to time and “space” refers to space. Three-dimensional space, namely length, width and depth are generally represented in traditional painting. Freezing of instantaneous scene rather than time is reflected. However, in time and space reconstruction, time is introduced into space, like day and night alternation, change of seasons and the cycle of life and death. As a result, three-dimensional space turns into four-dimensional space and even multidimensional time-space if imagination is added. The addition of time and imagination made time and space subjective. It does not belong to the actual world but can be truly felt by awareness. It is free in time and space and imaginary in the visual field of spirit.

There are altogether 8 methods of time and space reconstruction: space association, time association, the basic form association, meaning association, volume association, subawareness association and positive and negative shape association.

2.1 Space Association

Space in time and space reconstruction is neither our real perspective space nor space with single viewpoint; rather, it is a combination of multiple spaces, such as imaginary space and real space, or flat space and three-dimensional space. Transparent overlapping, dismembering, space crossing as well as anti-perspective method can be used for space association. Let’s have a look at Waterfall (Figure 1) by Escher. It appears reasonable but is actually absurd: with house and pillar as reference, corridor in the painting stretches upward; however, after careful observation we can find out that the corridor is actually in a flat space and waterfall runs in a flat surface, which goes against spatial logic in any way. This is reconstruction of space by Escher. Escher
was a realistic painter in his early period. Afterwards, because of fascist dictatorship, disorder of world, he changed his style. Although works in later period of Escher mainly dealt with building, geometric figure and other abstract subjects, contradiction and absurdity revealed under reasonable appearance was a reflection of distorted world facing artists. In \textit{Falling from the Sky} (Figure 3), a lot of people in black with the same image are placed in the painting, with building and sky as background. These people suspend in the air and space where they originally belong is changed. Although the painting is as confusing as a maze, it is clearly legible. Another example is \textit{Pillar} (Figure 4) by Homer Aguilar, space of a house is displayed in the painting. Although it appears real with use of mirrors, windows, doors and light, you can find that space in the mirror is repeated and unreal, thus giving his painting a sense of magic surrealism.

![Figure 1](image1.png)

**Figure 1**  
Escher, Waterfall

![Figure 2](image2.png)

**Figure 2**  
Magritte, Falling From the Heaven

![Figure 3](image3.png)

**Figure 3**  
Homer Aguilar, Pillar

It is important to select setting and props in space combination. Students can be reminded to select spaces with strong sense of space, for example, corridor, staircase and house with multiple rooms. Meanwhile, props as window, door, mirror and light can be borrowed.

\subsection*{2.2 Time Association}

FigureAncient, modern, Chinese and foreign images at different times and places can be shown in one painting. For example, in \textit{Genesis} by Michelangelo (Figure 4), 7 days created by God according to the Bible story in which God created the world are shown in a large painting of 560 square meters. Extension for a period of time is shown. Although Michelangelo never saw God himself, the painting in which Adam was created by God through blowing is made lifelike and full of vitality with the power of imagination.

![Figure 4](image4.png)

**Figure 4**  
Michelangelo, Genesis

\subsection*{2.3 Basic Form Association}

Combination and imagination of relevant images are adopted to make them novel, absurd and interesting without changing basic form of objects. \textit{Slave Market with Head Portrait of Voltaire} (Figure 5) by Dali makes association on Voltaire and female slaves behind. Peculiarly designed painting makes viewers doubt their own eyes. Viewers cannot be clearly distinguish Voltaire from the female slave and also throw doubt on their locations: Whether they are on the desk or in space in the back? Shape of gun and viscera of fish are adopted in \textit{Soldier & Tears} by modern painter Zhou Song to make grafting and association on the basic form. By putting weapon and bloody viscera together, visual shock is brought to us to provoke our thinking. In assignment on basic form association, students can find combination of image for association, which is the attempt for them to use divergent thinking. Discussions on scheme with students are required and then select feasible ones for deep expression. Students are required to break the routine in their association and come up with unusual but wonderful thinking. For example, in assignment for students \textit{Sunflower} (Figure 7), basic form association of sunflower and cloth is adopted; meanwhile, red hue is used, which can be associated with revolution, life and other meanings. Students are required to consider not only sense of beauty in form but also meanings behind the painting.
2.4 Combination Association

Combine various kinds of objects relevant to the theme to achieve interesting, absurd and rich effects. Combination of images, combination of timing and combination of fragments are generally used. Topics such as the wall in memory, childhood and sound of blossom can be assigned to students. Inspire students according to topics, discuss upon the suggested proposal and then determine the feasible proposal for painting. The paintings of students are required to have fantastic image combination with personal characteristics. Combination association is frequently used in painting by Zhong Biao, a modern Chinese painter. In *Fly Slowly* (Figure 8), a kind of surreal image space is created through repeated combination of images.

2.5 Meaning Association

Association of meaning of painting according to subject figured out by painters. Metaphor or symbolization is usually used. *Guernica* (Figure 9) by Picasso and *Herald of Civil War* (Dali) by Dali are war theme paintings. *Herald of Civil War* reflects panic and fear deep in people’s heart caused by war. Tension and horror atmosphere of painting reaches stifling condition through a dismembered and disrupted woman. In *Guernica*, destructive scene of bombing in the war is reflected through dismembered and broken images: crying mothers, screaming war horse, disrupted person running in bombing and light like eyes. Spiritual shock it brought to us far exceeds the meaning of a painting. Subject of war and disaster are usually used for meaning association. As these subjects share consensual cognition and are convenient for students to give full play to their association.

2.6 Volume Association

New visual effect is formed by changing of the volume. Enlarged or reduced volume of objects commonly seen in our daily lives to produce new aesthetic value is in itself a new method of formal thinking which changes our original view on world and makes our world novel and full of fairyland. In installation art *Clothespin* by Oldenburg, our familiar clothespin was designed to the volume of buildings, which gave us brand new visual experience. It triggered us to wonder whether it was article of daily use or work of art. In *Personal Value*, work of Magritte, volume proportions for normal objects are changed. People would feel illogical and attractive in vision. Because of change in volume, each object is endowed with affective characteristics.
2.7 Subawareness Association

Subawareness is development of self-awareness like dream and fragment of memory. It is with strong personal characteristics. Subawareness fills the painting with visual illusion in combination of blur and reality. Subawareness association often uses certain kinds of props, like mirror, wall, shadow, night, room and door, which make paintings both real and unreal. For example, in *Smiling Masked Man in the Future* by Naranjo (Figure 12), smiling boy, mysterious masked man, wings with blood and hands stretching out from the wall are all seemingly telling us certain kinds of memory. The painting is permeated with misty beauty of illusion.

2.8 Positive and Negative Shape Association

Positive and negative shape is transformed from figure-ground relation. Positive and negative shape association breaks through normal procedure in vision and renders positive and negative shape figurative meaning. It makes people hallucinate and create two feelings. We usually refer to images as positive shape or figure and the surrounding “blank” negative shape or ground. When we learn painting, teachers usually put more energy on portrayal of positive shape, and negative shape is often neglected. In fact, negative shape is also vital to a good work. The completeness and intensity of positive shape can be reflected through negative shape. This is the overall recognition of the painting. Any elements in the painting forms an integral whole, so their positions and relationship between positive and negative shapes shall be properly handled. Rubin was the earliest person who studied visual phenomenon of “figure-ground reversal”. In his famous *Cup of Rubin*, interesting visual phenomenon of figure and ground is presented to us. This kind of change of meaning of image caused by change of viewpoint is called figure-ground reversal. When we are appreciating the shape of positive shape, we at the same time can sense the hidden mysterious and fantastic wisdom between images. Escher created a large quantity of unforgettable artistic works using figure-ground reversal, such as *Day and Night* (Figure 13). We can also see this form (Figure 14) in many works of Dali, master of surrealism, in which painters use duel images of shape and complex figure-ground reversal to express profound
meaning of image. Positive and negative shapes can also be called as false and true shapes, just like diagram of universe in China, in which false and true complement with each other endlessly with profound philosophy. The extension of positive and negative shape was also frequently used in contemporary art. Installation art The harmony of Poetry and Valley of Talent Scout (Figure 15) by Lu Shengzhong, a contemporary artist, were created by positive and negative shapes of paper-cuts, in which circles above used positive shape and those arranged like characters used negative shape of paper-cut. Being and not being, false and true are reflected in his works.

Topic as comparison of civilization in ancient and modern times, fusion of Chinese and western culture, clash between Chinese and western culture, depiction of poem, excavation of subawareness and exploration of paradoxical space can be assigned to students as assignment for time and space reconstruction. At the beginning of assignment, frequent exchanges with students are needed to avoid repetition. In the process of assignment, frequent instructions on students are required to properly restrict their imagination while their imagination is developed to avoid boundless random thinking. Figures 16-22 are assignment for students during creation of time and space reconstruction.

**CONCLUSION**

Time and space reconstruction reflects human beings’ inner world and certain kind of extension and deepening of the process of human civilization. It explores certain kind of fit between artistic creation and life spirit and it is external expression of inherent tension in psychological space-time. In our teaching, our study of time and space reconstruction in painting is to inspire the imagination of students, activate their potential of creative and make them give full play their artistic talents in time and space reconstruction.

**REFERENCES**


