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REVIEW ARTICLE

ABUNDANT AND CONTINUOUS: PETROGLYPH FIELDS FROM MULTIPLE DIMENSIONS AND THEIR CHARACTERISTICS — CASE STUDY OF PETROGLYPHS IN BADAIN JARAN DESERT

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ABSTRACT

Petroglyphs are often found in special natural environments. From different perspectives and based on different criteria, petroglyph fields can be categorized into the image field, the material field, the contextual field, the environmental field, the topographic field and the cosmic field, the last five of which can also be called physical fields. From another perspective, we can distinguish them into the reality field with the behavioral field as the core, and the virtual field with the “inner space” as the core. We can further divide the virtual field into three sub-fields: the mental field, the psycho-physical field and the cultural field. The multi-layered and diversified petroglyph fields coexist and reinforce each other. They are interdependent and interact to form an infinite and larger unified field. The various petroglyph fields show four characteristics: solidity, continuity, extensiveness, and plasticity. The fields determine and regulate the petroglyphs, making them dynamic living organisms that are constantly changing.

KEYWORDS

Rock Paintings of Badain Jaran Desert, Image Field, Physical Field, Inner Space Field

1. INTRODUCTION

Unlike other forms of pictorial language in the world, petroglyphs are often found in the remote places or in rarely visited caves. Based on existential philosophy and ontology, petroglyphs reveal two thought-provoking issues in their own objective and natural state of existence: First, the space of petroglyphs is not empty. About the space of petroglyphs, we will not go into details, as some papers have been published to describe the theory. For more information, please refer to another paper of mine “Image Inside a Picture” and “Image Outside the Picture”: Multiple Spaces of Petroglyphs, National Arts Bimonthly, 2018-03-13. When we find a petroglyph at an open space for visual perception, such as a mountain top, and start to appreciate the image, which is usually called a piece of petroglyph, our gaze will inevitably turn to the material that carries it — the cliff or stone, the surrounding rocks, sand, and vegetation, such as shrubs or grasses. We will also see mountain landscapes, even the beautiful pastoral scenery, the fresh blue sky and twinkling stars. Second, the space of petroglyphs is not static, but dynamic. There are complex interactions between the petroglyphs and natural forces and people. Their weathering is part of the natural cycle of the world. As time passes by, petroglyphs are affected by the natural erosion and weathering as well. Erosion is slowly and relentlessly taking a toll though. Water and wind, to a lesser extent, slowly erode some panels. Others disappear with the sudden collapse. Petroglyphs exist

in a multidimensional space of interdependence and interaction, some of which are visible, and some are invisible. Therefore, using “space” to summarize this characteristic seems inadequate. The French scholars found that the research of prehistoric art, especially petroglyphs, was “a discipline that needs to consider regional characteristics. All rock art sites exist in and form an integral part of the wider landscape.” (Emmanuel, 2007). Petroglyphs are natural objects. When we analyze petroglyphs from the theory of real existence, we need to focus more on their properties in geography or physics. However, the academic communities both at home and abroad have produced very few works on this subject. In this paper, we have applied the latest field theories from geography, philosophy of physics and Gestalt psychology, and borrowed the term “field” from physics and Gestalt psychology and formed the concepts of “the physical field the image field the psycho-physical field” and “the topographic field” to describe the places where petroglyphs exist. To better understand the nature of rock paintings, this paper has investigated the categories, characteristics, functions and meanings of petroglyph fields and their relationships, with the main focus on physical properties of rock paintings.

2. THE IMAGE FIELDS AND THE PHYSICAL FIELD

The ancient Chinese believed that “The space surrounding us is called ‘Yu’ The word “space” here implies “boundary”, “field”, or “area”. Thus,

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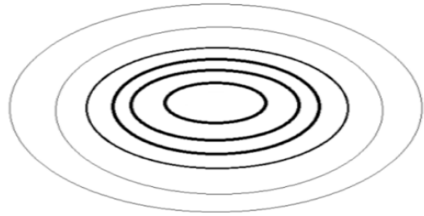


Figure 1: Diagram of petroglyph fields



Figure 2: Fossil

the rock paintings that exist in the nature are inherently bounded “lands” or “territories”, which has another word “field” to define. If we take petroglyph images as the center, we can further divide the space of petroglyphs into six fields: the image field, the material field, the contextual field, the environmental field, the topographic field and the cosmic field (Figure 1), from inside to outside, from small volume to large volume, as what we measure in physics.

2.1 The Image Field

The image field refers to the materialized and bounded area where the visual language of rock paintings appears. As shown in Figure 2, the image space has the abstract and pictographic mahout and several dots below him. The academic circle often analyzes the pictorial language conveyed by the rock paintings. When scholars talk about the rock painting shown on the right side of Figure 1, they usually mean the image and space shown on the left. That’s why people often call the replica a piece of rock painting. However, the replica does not reflect how large the actual territory is, nor does it show the actual boundaries. The image field of petroglyph, which is shown in Figure 2, refers to the irregularly shaped but generally trapezoidal rock surface, where the rock painting (right in Figure 2, This petroglyph is located at Mandela Mountains. The right-side picture is a rubbing of the original image. Although it is not collected from the wilderness, it preserves, to the largest extent, the original appearance of the petroglyph. The author has not applied for patent for the rubbing method yet. In the future, the author will write a thesis about it so we will not go into details here.) appears. In other words, the concept of “image field” refers to the materialized place. From the perspective of the physical reality, a petroglyph is never an empty linguistic structure but supported by physical objects. The term “field” is used to describe the visual language of the rock painting. This is because the rock surface has a clear boundary that not only shows the outline and location of the rock painting, but also indicates inter- and intra- image relations. Just like a painting surrounded by a frame, the rock surface and the image field share the same boundary. When we use the image field to interpret the petroglyph (left in Figure 2), we mean both the perfect and holistic linguistic form conveyed by the image of several dots and a mahout, and the trapezoid stone that carries it. The two parts are inseparable and they reinforce each other, jointly forming a materialized, larger, and holistic form — the image field. This “form” is what psychologists call the “Gestalt” or perfect “form”, which “is like an electromagnetic field” (Jean, 1999). As there is a gravitational force of attraction between every object in the universe, the interactions between images form the image field. The image field is different from the “graphic field” and “background field” from the Gestalt psychology, which only represent the petroglyph space shown on the right side of Figure 2. In addition to the “graphic field”, the image field contains the entire rock background shown on the left side of Figure 2. Kurt Koffka,



Figure 3: Fossil

who was responsible for the development of gestalt psychology, argued that “the image is either darker or brighter than the background” and that “the graphic field is better organized than the background field” (Boring, 1981). However, rock paintings show the opposite pattern: the tangible boundaries outlined by the natural borders of the stone are far better organized than the invisible boundaries formed by the interaction of images. Therefore, the image field can more accurately demonstrate the objective existence and the essence of rock paintings. The author has another thesis to discuss this topic, so we do not go into details here. In the case of the rock paintings of the Badain Jaran Desert, a relatively complete and independent image field can have one or more images.

2.2 The Material Field

The material field refers to an independent and complete visual perception field formed by the primitive material that carries the visual language of petroglyphs. The “visual perception field” mentioned here is a concept of Gestalt psychology. The responsible person of this project has published paper that elaborates the visual perception field of rock paintings, so we will not go into details. For more information, please refer to another thesis of mine “Goat Script: A Form of Pictorial Drawings on Stone”, The Commercial Press 2012 version, Chapter One. The material fields of the Badain Jaran Desert can be categorized into three types: First, stone, which is the most commonly used material field. For example, the objective stone that carries the image of the mahout (right side of Figure 2) constitutes the material field of the mahout petroglyph. Second, rock wall. Rock wall usually contains a large number of petroglyphs, the number of petroglyphs in this field is just second to those in the stone field. Zuojiang Huashan Rock Art Cultural Landscape and the Rock Paintings of Longshou Mountain are perfect examples. Thirdly, cave, in which petroglyphs are chiseled on stone walls and surrounded by enclosed cave space, for example, the Cave of Altamira and the Cave Art Paintings of the Lascaux Cave in Europe. This type of material fields can be found in caves around the world. As in the case of the handprint petroglyphs in Badain Jaran Desert, some of petroglyphs are located in caves formed by several huge stones clamped between rock gaps. Others are found in the bottom end of a canyon (Figure 3): one handprint petroglyph is hidden below a triangular rock with many holes on it (Left). Its material field includes both the rock wall with handprint petroglyphs on and the large triangular stone.

2.3 The Contextual Field

The contextual field refers to the context shared by a rock painting and its surrounding objects within a complete and independent visual perception field. As conservation methods have been taken to protect the rock paintings on rock art sites, some artificial objects may appear near the petroglyphs. When we say “surrounding objects” we only include things from the natural world, not the artificial ones. The contextual field of the rock paintings in the Badain Jaran Desert is both in complex and in simple forms: (1) “complex” means that the scenes in the contextual field are very complicated and vary according to the location of the rock paintings. For example, the hand stencils of the Badain Jaran Desert caves are distributed in the rock canyon. Their contextual field is the integrated, large and complicated landscape consisting of sky, vegetation, rocks and land. The petroglyph material field at the top of the mountain is also surrounded by diverse natural landscapes. (2) “Simple”

means that the scenes in the contextual field have few factors. Some petroglyphs on mountain cliffs or stone walls are only surrounded by cliffs and sky. Despite the cliffs appear craggy and rugged, they are made of the same stones and the weeds. One example is the contextual field of the famous hand stencils of the Elesenhutele cave (Figure 3).

2.4 The Environmental Field

The environmental field refers to the geographical location where a certain number of petroglyphs concentrate, within an independent and complete natural environment. For more information, please refer to the appendix. Archaeologists or rock art scientists also call it the "rock art site". The purpose of naming rock art sites by their geographical features is to differentiate a complete and independent environmental field from various natural features on the landscape and create identity for petroglyphs. The environmental field can be manifested as a cliff, mountain, a valley or a canyon, and a desert cave, etc. As of 2014, 69 environmental sites had been discovered in the Badain Jaran Desert. The naming of rock art sites basically adopts the original names created by people in local communities. Such names often reflect local geographical features, such as Rock Paintings of Mandela Mountains, Rock Paintings of Xia D. Mountain, Rock Paintings of Hulaba Kouzi Mountain (literally meaning: rock paintings near the blowing horn-shaped hole in the mountain), Rock Paintings of Bubu Cave, and so on. Some of these names cannot be literally interpreted, such as the Rock Paintings of Liguquan (literally meaning: rock paintings upon the spring water) situated on the top of a small hill rather than near a spring.

2.5 The Topographic Field

Topographic field refers to the broader natural landforms where many rock art sites are distributed in. Such field is also in a relatively complete and independent natural environment with grand geomorphic features, such as mountains, major rivers, deserts, etc. Among hundreds of discoveries across the five continents, most of them are near the dominant topographic forms locally. For example, the Cave of Altamira, the first cave in which Palaeolithic cave art was identified, is located in Northern Spain, midway along the coastal strip, in the province of Cantabria, with the majestic Pyrenees Mountains to the north. Facing the vast Bay of Biscay, its topographic field features craggy with deep canyons and ravines, interspersed with high Cantabrian Mountain peaks reaching 2000 meters above sea level. Rock art researchers often name petroglyphs after their most prominent topographic features, or the topographic field. Examples include the Saharan Rock Art, Petroglyphs on Lake Baikal, Rock Paintings of Yinshan Mountains, Rock Paintings of Helan Mountains. Similarly, since 34 rock art sites are scattered in the hinterland of Badain Jaran Desert, Alxa League, they are collectively named the Rock Paintings of the Badain Jaran Desert.

2.6 The Cosmic Field

Cosmic field refers to the space where the petroglyphs concentrate along with the celestial dome, stars, interstellar and even the universe. Cosmic field is corresponded to the topographic field, as the sky corresponds to the earth. The natural landforms have the vast sky above it. Likewise, the cosmic field has the cosmic field above it, including the sun, moon and stars, as well as other celestial bodies.

In short, the petroglyph fields are essentially a concept of natural physics. They refer to the material that carries the petroglyph and the physical fields in which it is located. The image field takes the stone surface as its scope, and the boundary of the stone surface is the boundary of the image; the material field takes the stone or an independent and complete stone wall within a visual-perception field as its scope, and the boundary of the stone or stone wall is the boundary of the material field; the contextual field takes the visual-perception field as its scope. The boundary of a relatively independent and complete visual-perceptual field is the boundary of the contextual field. The same is true for the environmental field, the topographical field, and the cosmic field. Petroglyphs are nature itself, and nature has the supreme existential value to petroglyphs (Wang, 2017). Petroglyphs are therefore not composed of anything, but rather are produced by multidimensional spatial fields, each of which contains different objects and has its own relatively independent boundary. The concept of "petroglyph fields"

gives us insight into the interdependent relationship between the visual language of rock paintings and its surrounding natural environment. The natural environment of petroglyphs enhances its inherent beauty, and petroglyphs in turn bring the environment to life by deepening its significance. Accordingly, we can categorize the six fields into two types: the image field and the physical fields (including the material field, the contextual field, the environmental field, the topographic field, and the cosmic field). The image field considers the involvement of human creators, while the physical fields are the natural environment surrounding the petroglyphs.

3. THE REALITY FIELD AND THE VIRTUAL FIELD

Classification helps us understand things better. To gain a deeper understanding of the relationship between the image of petroglyphs and the physical fields, we should also include the mental field. Petroglyphs exist in the consciousness of the creator or viewer and the consciousness is produced by the physical object - the brain. As far as we can tell, there is no edge to the universe. Space spreads out infinitely in all directions. The world that is invisible to the human eye, especially the psychological space, is much larger. Therefore, the visible petroglyph fields are smaller in volume than the invisible ones. Although the objects and people within the field can feel their existence, the electromagnetic and gravitational fields in physics, and the psychological fields in psychology, etc., are invisible to the eyes. In contrast, the image field and material field are visible to us. Thus, based on visibility and invisibility, viewers can distinguish the petroglyph field into two major categories: the reality field and the virtual field.

3.1 Reality Field

The reality field refers to the existence of petroglyphs in space and their extension in the natural environment. The term "reality" refers to the existence of all objects, including human beings, and various relationships and events by their interactions. It refers to both individual objects and the specific material system composed of individual objects. The difference in scale, scope and size of this material system determines their positions. Accordingly, we can classify the reality field into the three categories:

3.1.1 The Image Field and Physical Fields

Just like the earth, the universe has been explored by human beings through satellites and spaceships, etc. Strictly speaking, all the six major petroglyph fields we have mentioned earlier based on the size, from inside to outside, (the image field, the material field, the contextual field, the environment field, the topographic field and the cosmic field) belong to the reality field.

3.1.2 The Natural Force Field

This refers to the space formed by the interaction between the petroglyph images and other objective things. Although this kind of field is not visible, we can still see its effects, such as the changes of image field by rock weathering, water damage on surfaces, changes in exposure to sunlight.

3.1.3 The Behavior Field

The behavior field refers to human activities related to petroglyphs, or more specifically, how human behavior influence the existence of rock paintings after they have been created. The behavior field will influence three physical fields:

(1) The image field

The human behavior affects petroglyphs in two ways: First, graffiti/vandalism. Secondary creation is a common phenomenon in petroglyphs. Many Badain Jaran Desert petroglyph image fields are inscribed with Xixia script, Mongolian script, and even modern Chinese characters. The color of the carving marks alone shows that they were added to the original image field by later generations. The true nature of the petroglyphs has been altered. Secondly, they have been selectively removed. The original integrity of the rock art image field is broken up

into two or more rock art pieces for various reasons. For example, the Elesenhutele cave is 5.2m wide and 24m deep, the highest place in the cave is 3.2m and the lowest place is 0.83m, and there are 27 handprints on the top of the stone wall that are clearly visible to date, but people usually extract only one or two for study.

(2) The material field

Human behavior in this field: (1) Moving and destruction. Petroglyphs in the Badain Jaran Desert do not normally belong in museums, however sometimes petroglyphs that are small in size have been collected in the past and become a part of museum collections. Some petroglyphs have been stolen. During the moving and transportation, the material carrier of the petroglyphs - an intact stone - is often damaged to varying degrees and loses its original face. Even if we try very carefully to repair panels suffering from chiseling and cutting, we will never be able to restore the petroglyphs to their original state. (2) Fragmentation. At present, researchers who collect petroglyphs in the field focus only on the visual language of images, but ignore the material field. As a result, replicas and photos published by authoritative publishers rarely show complete material fields along with the images. Most of them preserving only part of a material field that carries the image. Few of them contain the material field as intact and complete as in Figure 2.

(3) The contextual field

This mainly refers to two situations: (1) Destruction. Human population growth and development are having significant effects on the culture of local communities whose ancestors created the rock paintings. The need for rock art conservation attracts little recognition and inadequate support. As a result, some rock paintings were destroyed by later generations. For example, most of the petroglyphs of Longshou Mountain 90 kilometers south of the Badain Jaran Desert are carved on dangerous cliffs at gully mouths, near rivers or riverbeds. Their contextual fields are scattered. In recent years, the local government built roads across the mountains by directly knocking down many of the rock art sites, i.e., cliff walls. When the author was on a field trip in September, 2016, to investigate local petroglyphs together with the Curator Fan Rongnan of Alxa Right Banner Museum, we saw the cliff walls, i.e., the petroglyph field, were torn down to build new roads. (2) Reconstruction. This refers to reconstructing the petroglyph's contextual field for various reasons. For example, at the bottom of Mander Mountain, there are many simple structures such as sheep pens built by shepherds with stones, among which are rock paintings. The material field of rock paintings has left its original contextual field and been placed in another contextual field.

Therefore, if the image field, the material field, the contextual field, the environmental field, the topographic field and the cosmic field belong to the physical fields, then the behavior field can be categorized as the social field. They are all visible and objective entities.

3.2 Virtual Field

Not all spaces of the rock paintings are visible. We use virtual field to describe the etheric space that is opposite to the reality field and the "inner space" of a person (Francois et al., 2006). In 2001, based on the topic of consciousness, Professor Susan Greenfield at Oxford University proposed and proved the inner space of human brain. Etheric space refers to the empty space with materials invisible to the human eye. Such space consists of air, light, waves, and the interaction between two objects or people (e.g., the aura). Inner space refers to the space in which human consciousness, mind, and spirit flow. Although not tangible, the virtual field has its boundary. On one hand, scientists are constantly exploring the boundaries of the etheric space. On the other hand, the intangible "inner space" also has a visible representation: human brain. According to the study on "inner space" of British scientists in the early 21 century, the brain is a remarkable and complex structure responsible for thinking. Human thoughts, feelings, and behaviors are rooted in the brain, which receives information from the internal and external environment, transforming this information into experience (Francois et al., 2006). If the brain is the field of all human activities, then mental and spiritual activities, and their interactions with the external environment, such as nature or culture, all take place in this field. As human brain has certain boundaries, we can further divide the virtual

field into three sub-fields: (1) Mental field: This refers to the imaginary world created by the painter or viewer through images. It is easy to produce in mind the objects that exist in real life, but hard to interpret things beyond the objective world. (2) Psycho-physical field: This refers to the space formed by the interaction between the painter or the viewer with the physical field or the reality field. (3) Cultural field: This refers to the spiritual space of the painter or viewer.

As we have mentioned before, one method to distinguish the reality field and the virtual field is based on whether it is visible. Another method to distinguish the petroglyph fields starts from human brain, the objective bounded field in reality. From this perspective, the petroglyph fields can be divided into two categories: the physical field and psycho-physical field. The physical field refers to objective fields in nature, such as the material field, the contextual field, the environmental field, the topographic field, the cosmic field, and the natural force field. The psycho-physical field refers to the fields from the "inner space", such as the image field, the mental fields, and the cultural field. Each of these fields is manifested in objective elements from a specific time or space: the physical field consists of natural materials, contexts, regions, domes, and natural forces; the image field consists of images; the psychological field consists of the mental activity of the painter or viewer; the psycho-physical field consists of the feelings of the painter or viewer and the objective rock paintings; the cultural field consists of the painter or viewer's historical period, race, religion and aesthetics. Image, mentality, psycho-physical interaction, and culture are closely linked to the objective rock paintings as well as the mind. The term "Psycho-physical field" reflects the significance of human to petroglyphs: petroglyphs belong to the physical field and also the virtual "inner space" of human beings.

Thus, people often interpret petroglyphs from the perspective of "inner space". It is the "inner space" that determines how petroglyphs will appear in the physical field: One characteristic of petroglyphs is their locations, which are chosen by the painters. Petroglyphs located in a particular physical geography were always created by a specific person at a specific time in history. For example, petroglyphs of the Carmonica Valley, San Francisco Mountain and Tsodilo Mountain are all included in the UNESCO World Heritage List, and the oldest of the cave paintings in Bhimbetka is believed to be about 12,000 years ago, even earlier than all the Indus River Valley civilizations. Since most of the world-famous petroglyphs were made in prehistoric times, their creators no longer exist, and relevant documentary and archaeological data are not available now. As a result, although some visible physical fields can be found, the painters' mental field, psycho-physical field and cultural field are lost. Such fields in this paper only belong to the viewers. Therefore, when we try to understand petroglyphs, we need to pay more attention to the physical field, because it is an indisputable fact that an independent and complete petroglyph system is composed of both the physical field and the "inner space" of human beings.

4. THE FOUR CHARACTERISTICS OF THE ROCK PAINTING FIELDS

Based on the distinctions we have made to petroglyph fields under different criteria, petroglyph fields are multi-layered, diverse, and interdependent. This can be clearly seen from the first classification of petroglyph fields — the objective reality. Various petroglyph fields interact with each other and jointly form an infinite field, which presents the following four major characteristics.

4.1 Solidity

Since the 18th century, many "field" concepts and theories have been proposed in physics, such as the electromagnetic field, the gravitational field, the unified field theory, the normative field, and the quantum field. These new concepts have not only brought a revolution for natural science, but also become popular in social sciences and daily life. For example, in Chinese we describe people who look powerful and confident the one that has strong field literally imposing manner. The well-known psychologist Gestalt believed that things can be seen as a complete whole if they're located in the same bounded area or field. The German psychologist Kurt Lewin (1890-1947) introduced the field theory into sociological research. When we use field in Chinese

characters to describe places such as, “market”, “farm”, “playground”, we mean the objective areas. The field will stay there no matter people or objects enter to it or not. In contrast, the “field” in modern physics is not a physical and objective place. It refers to the interaction of objects and material movement. In other words, without the continuous motion and interaction between things, there is no such a “field” in physics. The concept of “petroglyph fields” is different from the “field” for “playground” or the “field” in physics, such as electromagnetic field, quantum field, etc. Petroglyphs belong to the material “field”, so our description of petroglyph fields is based on reality. Petroglyph fields exist in the form of natural matter, an objective material that can be perceived. Therefore, materiality is the most prominent characteristic of petroglyph fields. As Susan Greenfield put, “we can never enter the interior of someone’s brain. The inner space will always be personal”. If this is true, then except for the “mental field” in the virtual field, even the cultural field, the psycho-physical field and the cosmic field are visible to people. We can understand the cultural field based on archaeological discovery. We can perceive the physical part of the psycho-physical field as it is an objective existence. Although the cosmic field is vast and many parts of the universe are imagined by human beings, some of them can still be detected. Many fields exist independently of other objects or people, but petroglyph fields cannot exist without petroglyphs, or precisely the image field. This means that petroglyph fields depend on the image field. Likewise, the image field is supported by the objective and materialized petroglyph field. Therefore, petroglyph fields are in fact a kind of solid reality field.

4.2 Continuity



Figure 4: Fossil

The continuity of petroglyph fields and the interactions between them are manifested through three fields.

4.2.1 The Reality Field

The continuity of the petroglyph fields and their interactions can be demonstrated in three aspects: First, the unified reality field, which is completely in the physical world. The image field, the material field, and the contextual field are all interconnected with each other. They are connected into a whole by the overwhelming sounds of nature, which dissolve the boundaries of various fields and blur the distinction between the interior and exterior. Second, if you want to appreciate rock paintings you must go onsite as what we do for other artworks. On the way to the petroglyphs, you will pass through various petroglyph fields in turn: the topographic field, the environmental field, the contextual field, and finally you will arrive at the image field. As we immerse ourselves in the physical space that encompasses everything, the boundaries between the physical fields disappear. What we feel is a continuous natural scene. Third, even when we look at the petroglyphs in the image field, our gaze will inevitably turn outwards and reaching to the material field, the contextual field, the environmental field, the topographical field, and the cosmic field. As shown in Figure 4: our feelings about the rock paintings often go beyond the boundaries of the stone. Distinctions between the image and the context, between the near and the far are blurred. All the fields that we used to demonstrate the physical properties of the rock paintings disappear. The differences are

ignored and the fields dissolve into an all-encompassing space. All the scenes seamlessly integrate into the sky and exist as a whole.

4.2.2 Psycho-Physical Field

The psycho-physical field refers to both the field formed by the interaction between the painter’s emotion when making the petroglyph images and the objective physical field (i.e., the petroglyphs), and the reality field in which the viewer perceives the petroglyphs. It is a combination of the viewer’s perception of reality (i.e., the psycho field) and the perceived reality (i.e., the physical field). In this psycho-physical field, due to the interaction between the individual and the outside world, the creator and the viewer no longer notice the boundary between the petroglyphs and the surroundings in the physical field. They are more likely to see a different field in their stream of consciousness. In this dynamic field that encompasses everything, the distinction between things disappears, and the boundary lines between the ego and the external world dissolve. The inner space and the external world mutually influence each other.

4.2.3 Cultural Field

Cultural field exist in burials and relics of the contextual field, the environmental field, or the topographic field and it is similar to the psycho-physical field. The cultural field is not a physical property that is observable or objective. In other words, it depends on human interactions, including the interaction between the creator and the image, and the interaction between the viewer and the rock painting. The image carries information about the age, psychology, talent, imagination, and ethnicity of the painter. By appreciating the image and feeling the reality field, the viewer further learns about rock painting. In nature, the cultural field is formed by constant psycho-physical interactions, in which the subject and the object understand and learn from each other and after they smooth over the difference and blur the boundaries, the ego intersects in depth with the world, and the cultural field is formed. The cultural field is ever flowing and influencing. On the one hand, when painters were creating the petroglyphs, their categorical associations were endless: “they remained drifting through all the images of the world, even to their limit and brooded thoughtfully on each small realm of what they saw and heard. They sketched qi and delineated outward appearance, as they themselves were rolled round and round in the course of things; they applied coloration and matched sounds, lingering on about things with their minds” (Huang, 1957). On the other hand, when the viewers are appreciating the petroglyphs, “When the eyes have roamed over them /The mind expresses them. /The days of spring pass slowly, /The winds of autumn howl. /Our affections go out as a gift, /And stirring comes back like an answer.” (Huang, 1957).

In short, the reality field itself is an ecosystem that encompasses all factors. The psycho-physical field and the cultural field cannot be independent of human beings, as they are formed by interactions between human and the objects. In fact, in human’s vision and consciousness, various fields of rock paintings are interrelated and dynamic. The boundaries between them disappear and a continuous petroglyph field emerges.

4.3 Extensiveness

On the one hand, the petroglyph fields are finite, objective and materialized entities. On the other hand, they are infinite, non-materialized and spiritual things, such as the psycho-physical field, the cultural field, and the cosmic field. By “field”, we mean space that is not closed but continuous and open. Petroglyphs are the objective existence of the spirit. Although petroglyphs were created by human beings to convey their thoughts in the physical field, they were independent of human beings once they were produced. This is because petroglyph has a value of transcending time and space. By the same token, even today, the cosmic field is still an unsolved mystery to humans. When people try to understand petroglyph fields, which are objective and materialized with physical characteristics, they will inevitably add non-physical things, such as individual psychology, emotion, aesthetic preferences, aesthetic interests and customs of a particular historical period or nation, and even the elusive dark matter. Therefore, the petroglyph field is essentially a unity of visibility and invisibility, and it can extend to the infinite space.

4.4 Plasticity

The plasticity of the petroglyph field is reflected in two aspects: First, the earth and all things in nature will not be changed by human will. Their existence is independently of human. All the living organisms are breathing and moving all the time. The rock painting fields follow the same rules. Under the universe, the fields are affected by the wind, the rain, the lightning and the thunder. The texts or images of the image field may be impacted (or even erased) by the severe weather; the material field may be shaken or destroyed by natural forces; rock paintings' contextual field, environmental field and topographic field can also be weakened and changed. Secondly, people may change nature and the rock painting fields at will. They may erase the rock painting, or more precisely speaking, the image field (texts and images), from the material field or contextual field. Sometimes, even the material field is removed together. Sometimes, human beings may transfer them to another environmental field. For example, to promote tourism, some of the rock paintings of Mandela Mountains, especially those on smaller and light stones at the top of the Mountain have been moved to the bottom of the mountain. In this way, the material field and the contextual field of these paintings have been altered. For different reasons, they were transferred to some special contextual fields. Some are moved to another topographical field and cultural field. For example, people will transfer rock paintings from their own inherent physical field to museums and various exhibition halls. Some rock paintings of Badain Jaran Desert were moved to Helan Mountains. Some Chinese petroglyphs are transported to foreign museums. In short, both natural and human factors determine that the rock painting fields are constantly changing and keep developing.

5. CONCLUSION: UNIFIED FIELD THEORY

Since the discovery of rock paintings, the academic worldwide focus more on the expressions from the images. But in many cases, when we put the image back to its original environment, we often find that our understanding of the image may be not as precise as what we expected. Like fish cannot survive out of water, the so-called "rock paintings", which are taken directly from the image field, are obviously dead. Thus, the theory of rock painting fields completely rejects the approach of separating petroglyph images from their natural and physical environment. It holds that the fields determine and govern the petroglyphs. From the perspective of a unified field, petroglyphs are alive like humans. Specific rock paintings only appear at special fields and vice versa. Let's take rock paintings of the Badain Jaran Desert as an example. The handprints rock art only appear in arch structures

(material field), which can be represented by shallow caves along the narrow east-west environmental field of the Yabulai Mountain. Similarly, different cultural fields shape dissimilar rock paintings. For example, there are many ancient tombs and burial pits inside the contextual field of the rock paintings of Badain Jaran Desert. Moreover, many inscriptions of the rock paintings are in Tibetan, Mongolian or Xixia characters. The presence of such an abundant rock painting fields serves as a reminder to us. When we think about the image field, material field or contextual field, we should also pay attention to the environmental field, topographic field and everything inside the fields, especially various cultural fields. The physical field and the cultural field are present in harmony. The image field and the non-image field form the two major parts of a unified petroglyph field. The two are closely linked, inseparable, and interact with each other, forming a continuous and abundant spatial field of the rock paintings.

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