

**IMAGERY FROM BUDDHIST THOUGHTS
ON CERAMIC WARE
DESIGN RESEARCH SEMINAR
PDSPL - 144**

BY
DATTARAM CHARI
146130003

GUIDE
PROF. RAJA MOHANTY



INDUSTRIAL DESIGN CENTRE

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Design Research Seminar

IMAGERY FROM BUDDHIST THOUGHTS ON CERAMIC WARE

Dattaram Chari | 146130003

GUIDE : Prof. Raja Mohanty

Approval Sheet

Design Research Seminar
PDSPL - 144

titled "**Imagery from Buddhist thoughts on Ceramic ware**"

by Dattaram Chari
M.Des. (Industrial Design 2014-16)
146130003

is approved for the partial fulfillment of the requirement for the
degree of "Master of Design" in Industrial Design.

Guide

Date:

Declaration

The content produced in the project report is an original piece of work and takes due acknowledgement of referred content, wherever applicable. I also declare that I adhered to all principles academic honesty , integrity and have not falsified or misinterpreted data in any form. The thoughts expressed herein remain the responsibility of the undersigned author and have no bearing on or does not represent those of Industrial Design Centre, IIT Bombay.

Dattaram Chari

146130003
2014-16 Batch
II Year M.Des. | Product Design
IDC, IIT Bombay

Date:

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I am thankful to my friends Amit Wani & Chetan Dusane for giving me insights on some important facts on the life of Gautama Buddha.

I would like to also thank all the other members of the IDC studio space, who provided a great environment to work in.

Abstract

We all love beautiful ceramic artifacts and a decorative surface, of course, is the first thing noticed about any piece of ceramic ware and as with all things made with hand, the right concept makes all the difference.

I have delved into exploring the virtually limitless world of ceramic art in the project. From the history to the abstract there are endless possibilities of expressions. The project focuses on philosophy behind the Buddhist Art forms and thoughts and exploration of imagery & details thereby breaking them into a structured reality with more simplistic details.

With this project I have made an attempt to open up the creation of movement with the flow of shapes, lines, textures which delivers the beautiful imagery in the material. The theme, Gautama the Buddha, with its mystical presence, can be interactive in the sense that can invite the viewer to participate and interpret the piece of art.

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01 Introduction

The Buddha

(Gautama Siddhartha)

"Buddha" means "the awakened one"--that is, someone who has woken up from the dream of being a separate ego in a material universe. Gautama Siddhartha, whom we affectionately, [mistakenly], call the Buddha, taught for forty-five years. In all those years, and in the hundreds of thousands of teaching words that he uttered, his message was simply this: "You are all Buddhas. There is nothing you need to achieve. Just open your eyes."

•Stephen Mitchell

The central point of these accounts is the experience known as his enlightenment--his experience, after many years of intense meditation practice as a monk, of deeply understanding the habits of mind that create suffering and, through that understanding, freeing his own mind of those habits forever. As per the accounts , the Buddha's life begin with his birth as Siddhartha Gautama in 563 B.C. in northern India, and continue with accounts of his childhood, his marriage, his renunciation of his life as a prince in response to his awareness of life's suffering, his vision of a monk free of suffering, and his own desire for that freedom.

The Buddha called his understanding Dharma, and he taught it for 45 years by travelling around northern India. Over the centuries his message spread through Asia, became incorporated into the religious understanding and practices in many countries there, and served as the basis for the different forms of Buddhism that have continued to develop throughout the world.

As per the accounts, in the night of his 29th birthday, Siddhartha gave up his life as a prince and secretly left the court while everyone was asleep. The Bodhisattva, who once lived in luxury, became penniless and homeless wanderer. Once, he gave up the ascetic life as he got disillusioned with the Indian caste system, Hindu ascetism & other religious doctrines during his time in the region. He continued his search for truth through the practice of meditation.

He spend seven weeks meditating in the vicinity of the site of Bodhi tree & attained the status of a fully realized Buddha at the age of 35 after experiencing the state of enlightenment.

3 Universal Truths of Buddha:

1. Nothing is lost in the universe. Matter turns into energy. Energy turns into matter.
2. Everything changes. Life is like a river flowing on and on, ever-changing.
3. Law of cause and effect.



Karma & Rebirth

What is Karma?

Karma is a Sanskrit word that literally means "action". The word is used to refer to volitional acts as well as the fruits or consequences that arise from these acts. The idea of karma had existed in ancient Indian philosophy before the time of Siddhartha Gautama, and it became an important element of Buddhist philosophy.

Action springs from volition, which springs from intention, which springs from thoughts and so forth. A wise person at a high level of mental development can clearly discern mental activities and actions in an ethical dimension, while a deluded person has difficulties or is even unable to do so.

Emptiness

What is Emptiness?

The concept of Emptiness (sunnyata) in Buddhism must not be confused with nothingness. Emptiness is not non-existence and it is not non-reality. In the case of human beings, there is a body, a mind, a character, a history of actions, habits, behavior, and other things we can draw upon to describe a person. We can analyze the mind and see that there are sensations, cognition, feelings, ideas.

In the Art of Living (2001) the 14th Dalai Lama says "As your insight into the ultimate nature of reality is deepened and enhanced, you will develop a perception of reality from which you will perceive phenomena and events as sort of illusory, illusion – like, and this mode of perceiving reality will permeate all your interactions with reality. Even emptiness itself which is seen as the ultimate nature of reality, is not absolute, nor does it exist independently. Then we are to take that emptiness itself is an object and look for its essence, again we will find that it is empty of inherent existence. Therefore, the Buddha taught the emptiness of emptiness".

Pic : Ref, <http://introductiontoappliedbuddhism.blogspot.com>

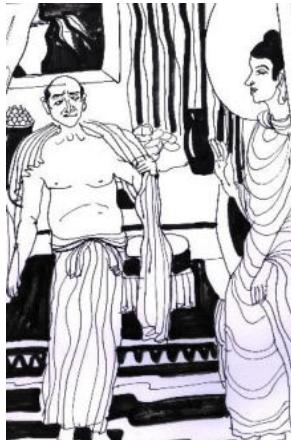
02 Dhammapada Stories

An Inspiration

The project initially started with the aim of depicting the Dhammapada stories on the final artform. In the Dhammapāda, behind each verse there lies a story which bears a lesson of great moral value whether they concern such human flaws as pride and greed, or such virtues as compassion and generosity. It is primarily for this reason that for centuries throughout Southeast Asia. In addition, the Dhammapāda stories are a valuable source of information regarding the personality of the Buddha himself: his temperament—the Buddha was always calm, patient and compassionate.



Dhammapada Stories



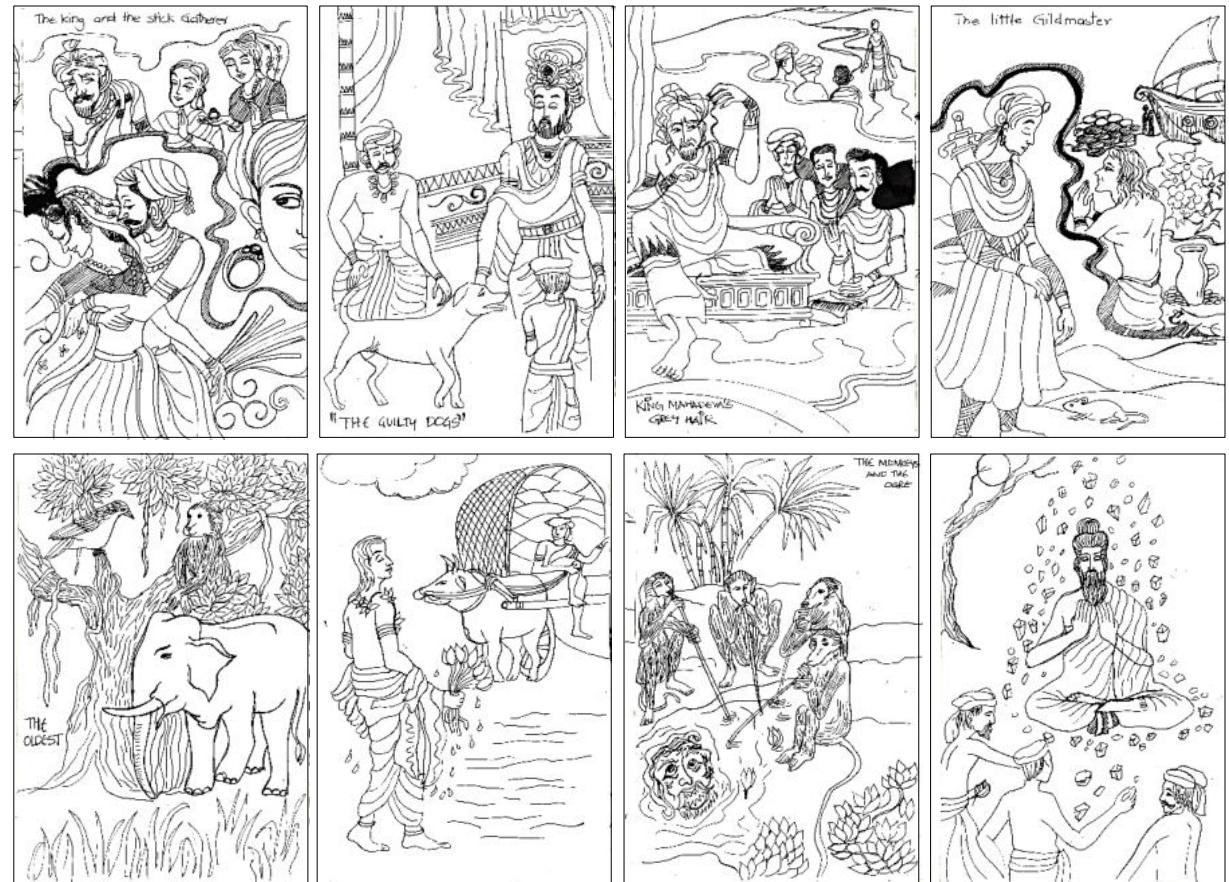
03 Jataka Stories

Inspiration

The Buddha's adventures in his former existences are narrated in the Jatakas .It is said that Buddha sat under the Bodhi tree and & started narrating his previous experiences to his disciples which have been recorded and these stories made light of otherwise heavy sermons, and the introduction of these fables and popular tales unfailingly roused the flagging interest of their devoted listeners.

The inspiration from these stories were taken into consideration to abstract out the features in the final artwork.

Ref: Jataka Tales, H.T. Francis & E.J. Thomas



04 Buddhist Symbols and Mudras

In Buddhism, the making of human images was considered sacrilegious for a long time, Buddhist visual art has produced an elaborate vocabulary of symbolic and iconic forms of expressions. A great variety of Buddhist symbols is found in temples and in Buddhist visual art and literature. The following eight figures are among the more common ones. One can understand these symbols as visual mantras.

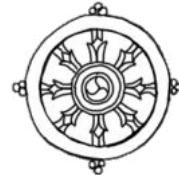
These Buddhist Symbols were considered for further inclusion in the final art form & derive at more simpler details.

Ref. Thich Nath Hanh, The Five Mindfulness Trainings, www.Plumvillage.org



Lotus Flower

Padma- Symbol of Purity. Can be of any colour except blue..



Dharmachakra

The wheel of the law. The eight spokes Represent the eightfold Path.



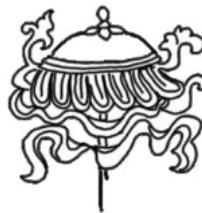
Stupa

The stupa is a symbolic grave monument where Relics or the ashes of a Holy monk are kept. It also symbolizes the Universe.



Triratana

The three jewels-the Buddha, the Dhamma, and the Sangha.



Chatra

A parasol- protection Against the evil; high Rank.



Dhvaja

Banner- the victory of The Buddha's teachings



Deer

The deer usually in pairs symbolizes the First sermon of the Buddha which was held In the deer park of Benares.



Naga

The snake king. Vestige of pre-Buddhist fertility rituals and protector of the Buddha and the Dhamma.

Buddhist Symbols and Mudras

Images of the Buddha were produced from the fifth century onwards. The sacred nature of the representation is reflected in the artistic goal of creating an aura of equanimity, perfection, and holiness. The large number of rules governing the execution of portrayal or a statue require an understanding of Buddhist symbolism. Any Buddha figure made by a skilled artist exhibits a multitude of characteristics that communicate subtle meanings and intentions to the viewer. These are well defined gestures of Buddha that have a fixed meaning throughout all styles and periods of Buddha Imagery.

Ref. Thich Nath Hanh, The Five Mindfulness Trainings, www.Plumvillage.org



Bhumisparsha Mudra

Touching the earth as Gautama did, to invoke The earth as witness to The truth of his words.



Varada Mudra

Fulfillment of all wishes
The gesture of charity.



Dhyana Mudra

The gesture of absolute balance, of meditation.



Abhaya Mudra

Gesture of reassurance, Blessing, and protection, "Do not Fear".



Dharmachakra Mudra

Gesture to interpret as turning of the law of wheel.



Vitarka Mudra

Intellectual argument, discussion. The circle formed by the thumb and index finger is sign of Wheel of Law.



Tarjani Mudra

Threat, warning. The Extended index finger is Pointed at the opponent.



Namaskara Mudra

Gesture of greeting, Prayer and adoration.



Jnana Mudra

Teaching. The hand is held at chest level & The thumb and index finger Again form the wheel of law.



Karana Mudra

Gesture with which Demos are expelled.



Ksepana Mudra

Two hands together in the Gesture of "sprinkling" the Nectar of immortality.



Uttarabodhi Mudra

Gesture of supreme enlightenment.

Buddhist Symbols and Mudras

The lotus flower represents one symbol of fortune in Buddhism. It grows in muddy water, and it is this environment that gives forth the flower's first and most literal meaning : rising and blooming above the murk to achieve enlightenment.

The second meaning , which is related to the first is purification. It resembles the purifying of the spirit which is born into murkiness. The third meaning refers to faithfulness. Those who are working to rise above the muddy waters will need to be faithful flowers.

The color bears importance in the meaning of the lotus flower in Buddhism. A white lotus flower refers to purity of the mind and the spirit. If a lotus flower is red, it refers to compassion and love. The blue lotus flower refers to the common sense. The pink lotus represents the history of Buddha and the historical legends of the Buddha.

The stage of growth the lotus is in represents a different stage of enlightenment. A closed lotus flower represents the time before a Buddhist follower found Buddha or enlightenment. A lotus flower fully bloomed and open represents full enlightenment and self awareness.

The mud represents the world where there is suffering. This suffering is a vital part of human experience, it makes us stronger and teaches us to resist the temptation of evil. The mud shows us who we are and teaches us to choose the right path over the easy one.

Finally, the lotus flower represents rebirth. The rebirth can change ideas, an acceptance of Buddha where there once was none, the dawn after one's darkest night, an ability to see past wrongs. In other words, in a literal sense, the lotus in Buddhism represents reincarnation.

Ref. Thich Nath Hanh, The Five Mindfulness Trainings, www.Plumvillage.org



05 Understanding the Buddha Imagery

The images of Kamakura Buddha in Japan were considered for a matter of study to obtain the visual elements in the Art form.

Ref. <http://www.sacred-destinations.com/japan/kamakura-great-buddha>

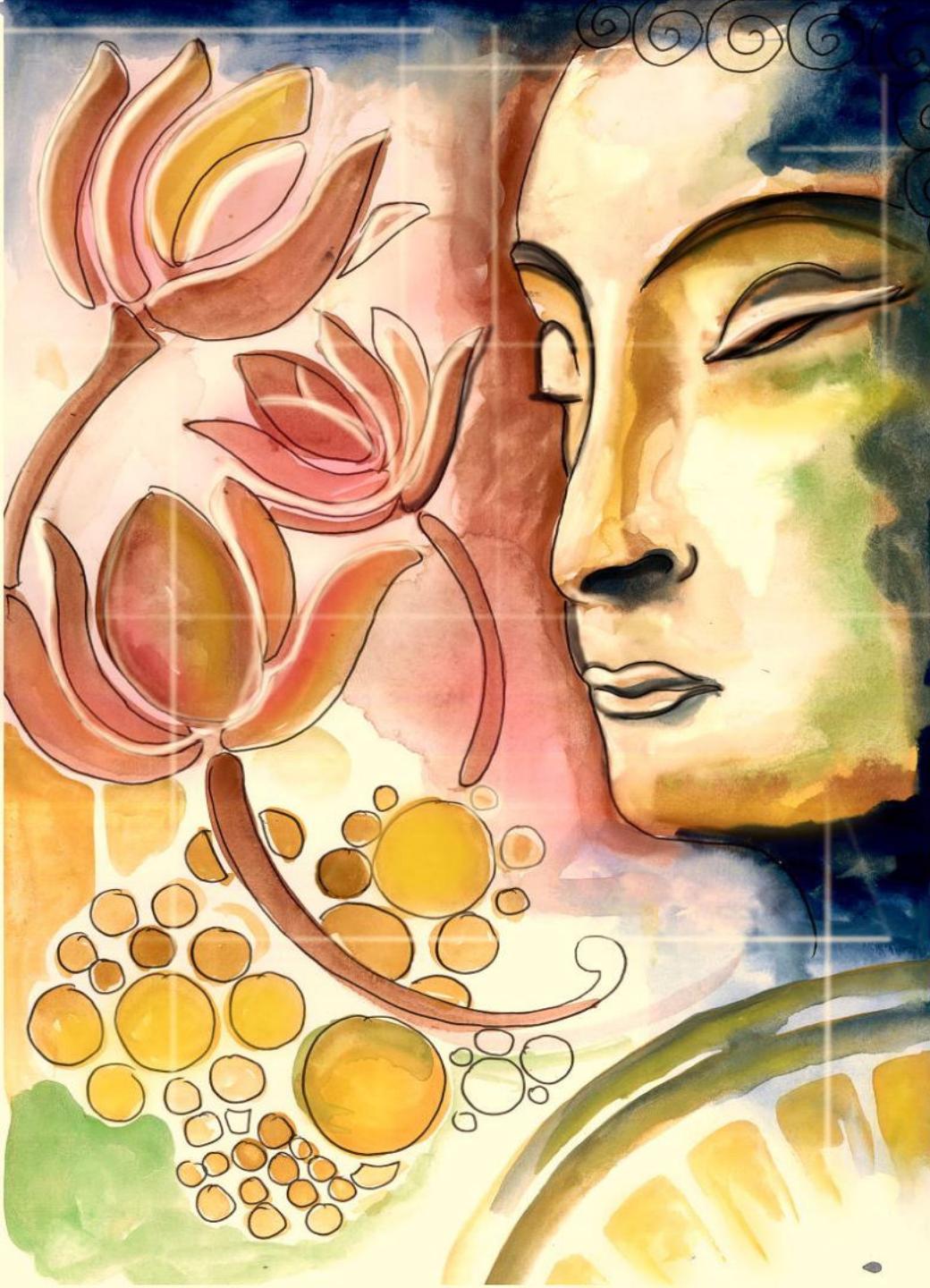


Understanding the Buddha Imagery



06 Initial Ideations

More prominence was given to the serene details on the face of Buddha while doing the initial ideations & sketches. The mudras and symbols were taken for initial inspiration.



07 Final derived Imagery

While deriving at final images, the main focus was to consider the bhava and mudras of Buddhist symbols and break them into single tiles with very simplistic yet prominent details.

For example, the dhyana mudra, the closure of eyes symbolizing the serenity , the blooming lotus symbolizing the enlightened mind had to be captured and made into main elements of the composition.

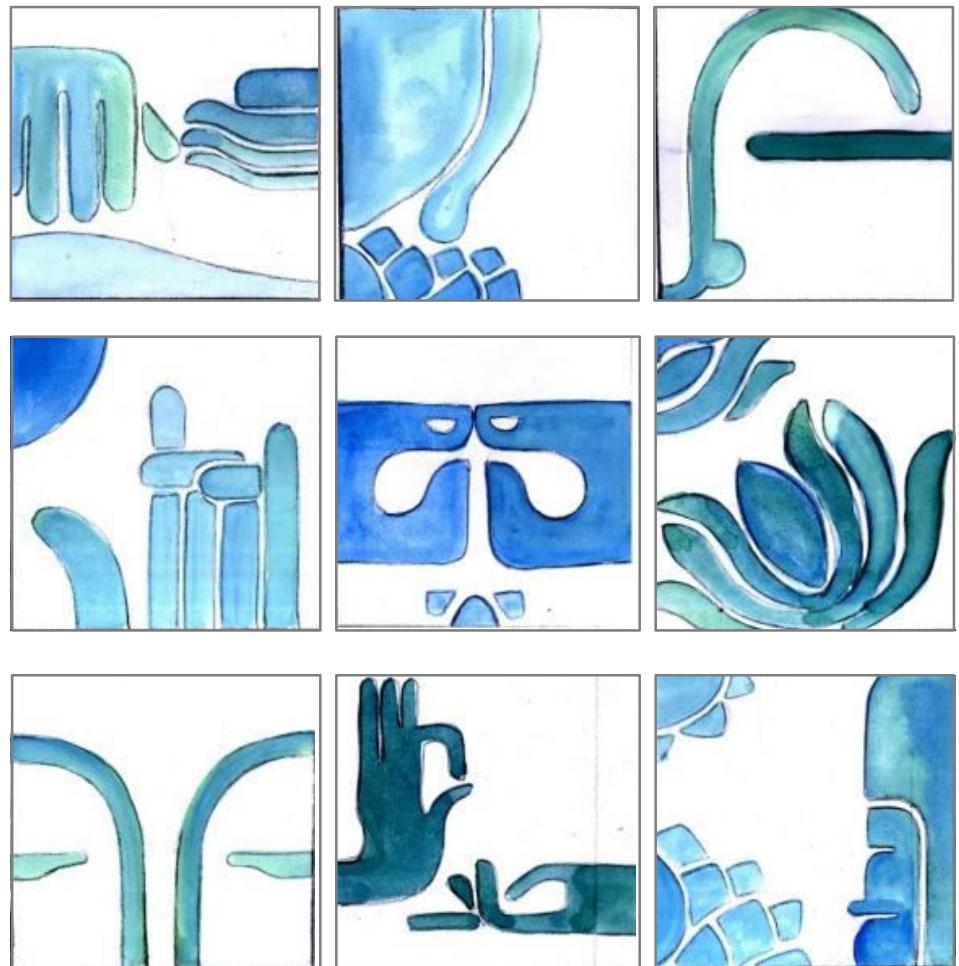


Fig 7.1 : Imagery derived from Buddha symbols & Mudras

08 Understanding glazed ceramics

The glaze coating is comprised of liquid coloured glass and is applied and baked to the surface of the bisque under very high temperatures. The liquid glass coating is what creates the texture, design and colour of a glazed tile and protects the body of the tile from staining. The colours in the glaze come from various minerals, such as zinc, mercury, copper, gold, silver, etc.

Glazing allows ceramic tile to be offered in unlimited colours and designs. If the glazed surface is scratched or damaged you cannot repair the tile, just replace it. Glazed ceramic tile are generally used in residential areas only, such as bathrooms, kitchens, walls and countertops.

Some of the features of glazed ceramic tile are:

- Stain Resistant**
- Scratch Resistant**
- Fire Resistant**
- Fade resistance to direct sunlight**
- Slip Resistant**
- Easy to Clean**

Unglazed tile have no glazing on the surface. The color of the bisque goes all the way through the tile from top to bottom. The through color means the tile won't show wear from scratches like glazed tile. Tiles like quarry tile are unglazed and used in both commercial and residential areas. Depending on the type of unglazed tile you may need a special sealer.

Ref : <http://www.floorfacts.com/ceramic-tile/glazed-versus-uglazed-tile.asp>



Image Source Ref: www.Pinterest.com

09 Understanding the Traditional Thangka Art

Among the many expressions of Tibetan art that we admire, the paintings are known as "Thangka". Typically, images on Thangka paintings, like those expressed in stone and metal, represent the various deities that populate the Tibetan artistic pantheon. Blazing with symbolism, their purpose is to transport the viewer into the supernatural and paradisiacal world of the deity.

The painting consists of a deity sitting amidst different motifs and flanked by deers, lions & mythical animals & elements like fire, flower images and clouds.

The elements are proportionate, compositional and based upon the artists coloring skills. Mostly the paintings are bright colored and the final artwork is rolled up and can be transferred on the fabric or satin cloth.

Ref :http://www.sacredworld.info/pdf/thangka_article.pdf

Ranjit Makkuni : The electronic sketch book of Tibetan Thangka painting



Pic Credit: Chetan Dusane
Ghoom Monastery , Darjeeling

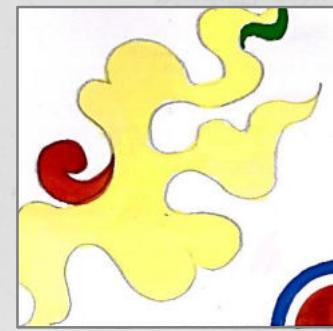
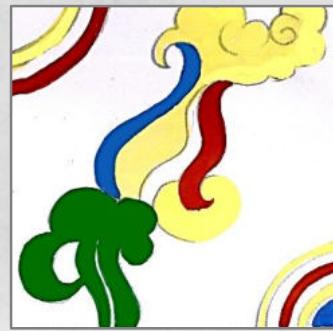
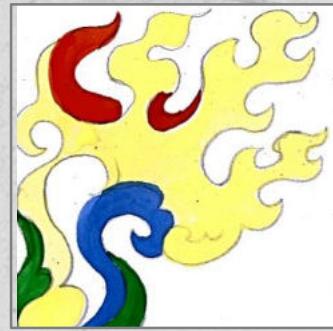
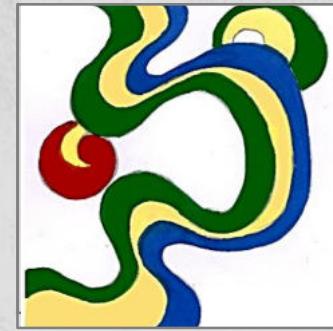
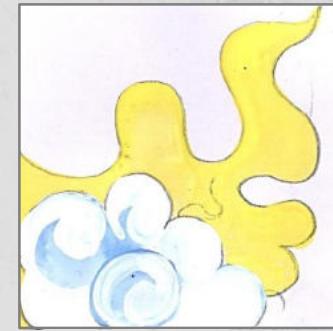
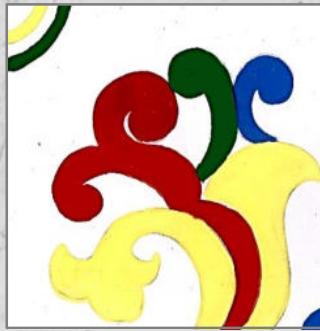


Pic Credit: Chetan Dusane
Ghoom Monastery , Daarjeeling

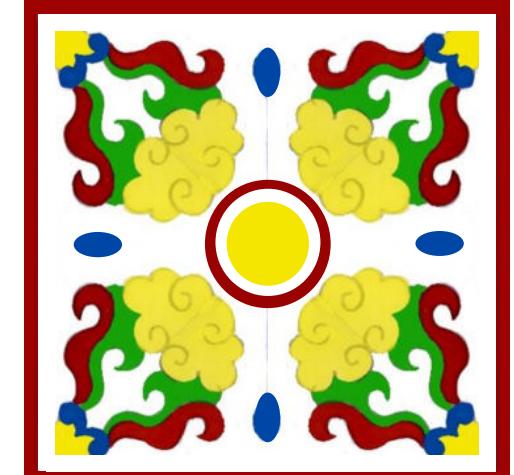
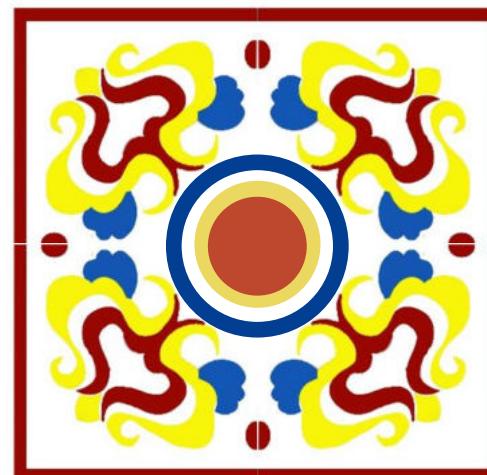
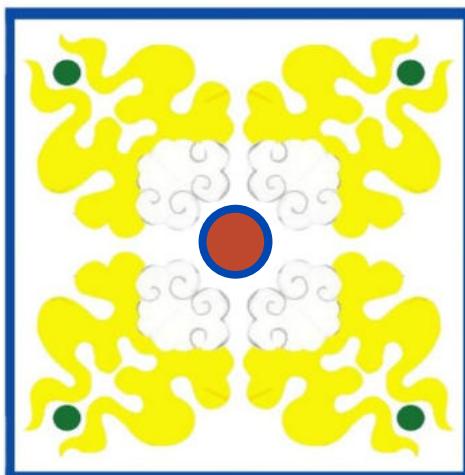
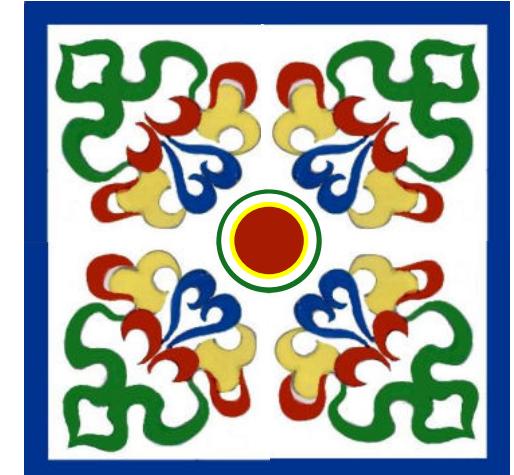
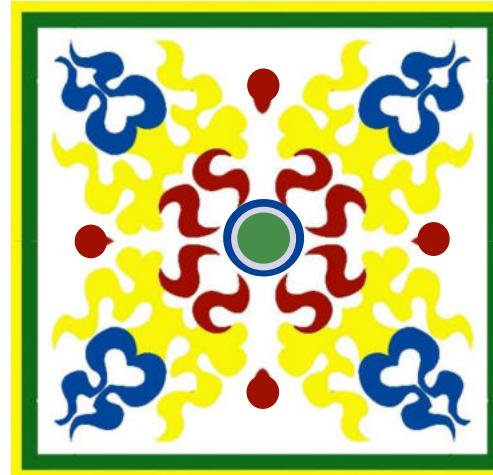
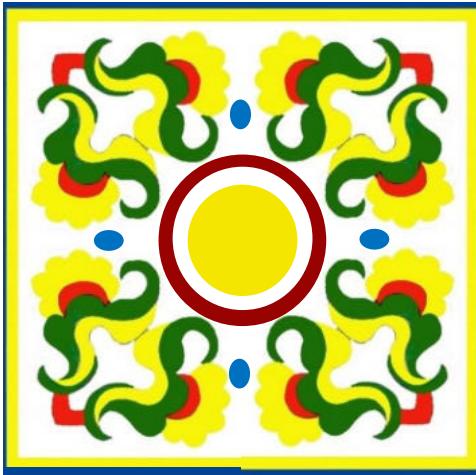


Pic Credit: Chetan Dusane

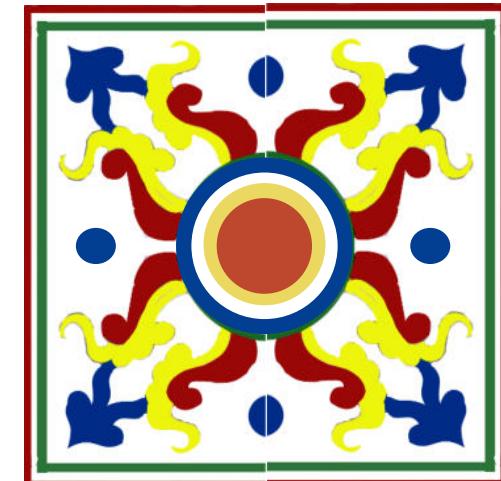
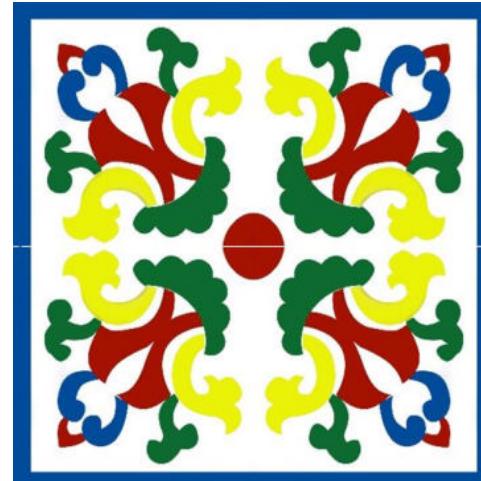
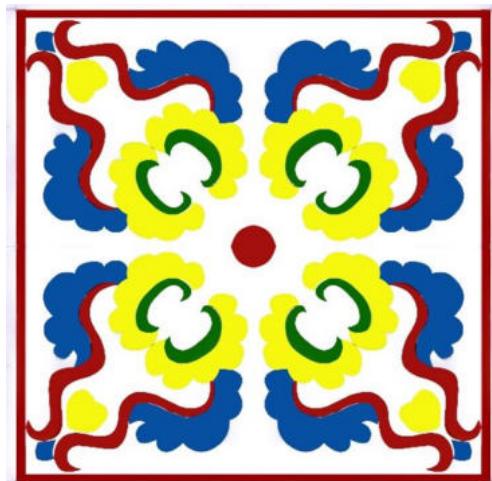
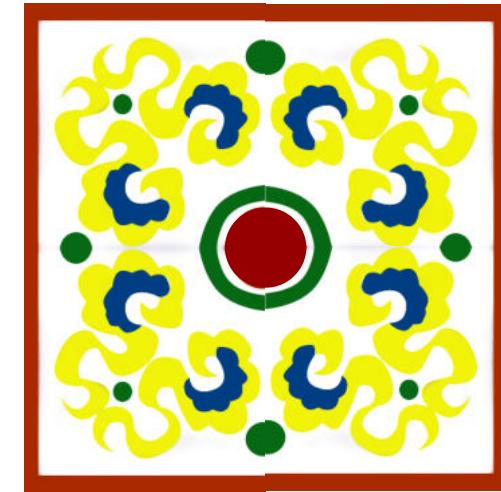
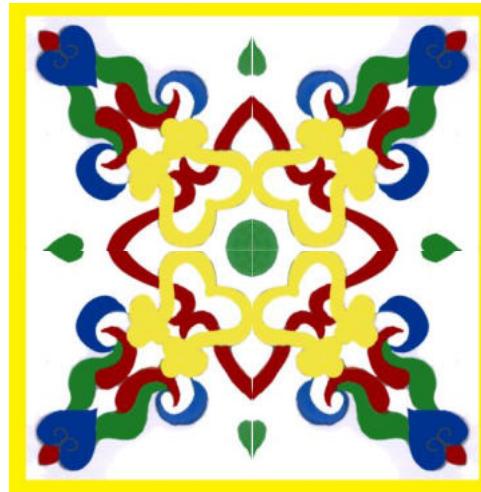
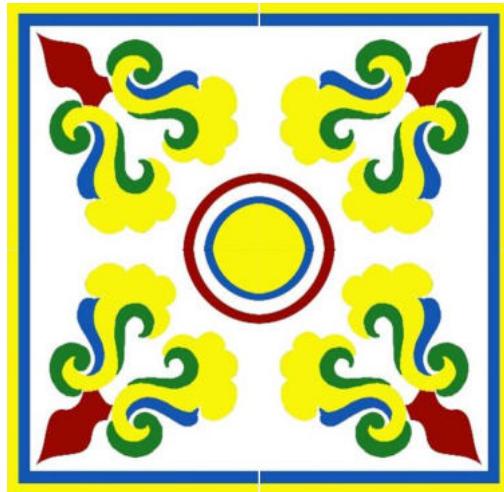
10. Initial derived imagery from Thangka Art



11. Final Thangka Art inspired Concepts for the Tiles



Final Thangka Art inspired Concepts for the Tiles



12. Patterning of the derived Tiles

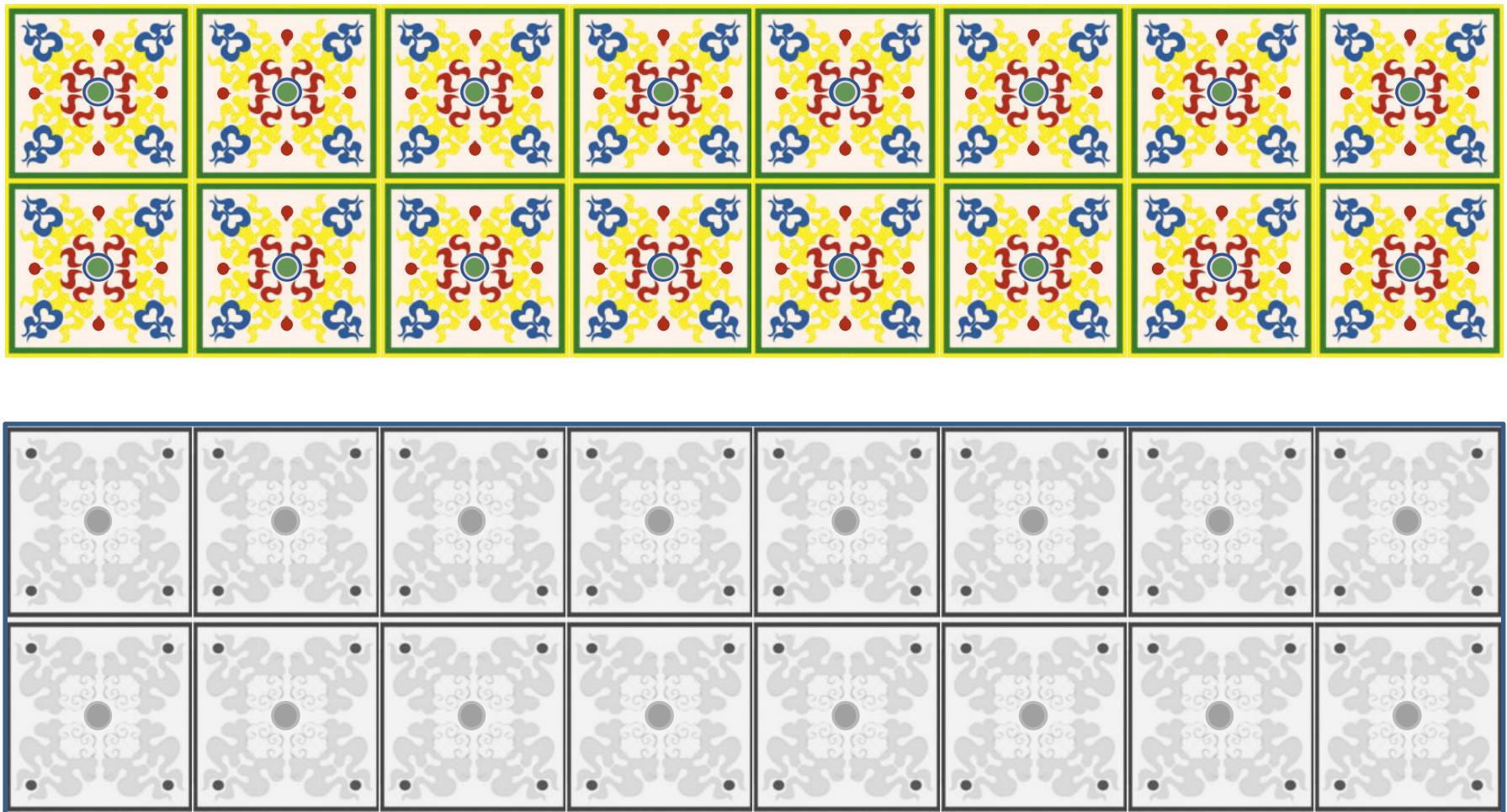


Fig. 12.1 Patterning of tile Imagery. Image Source :Author

Patterning of the derived Tiles

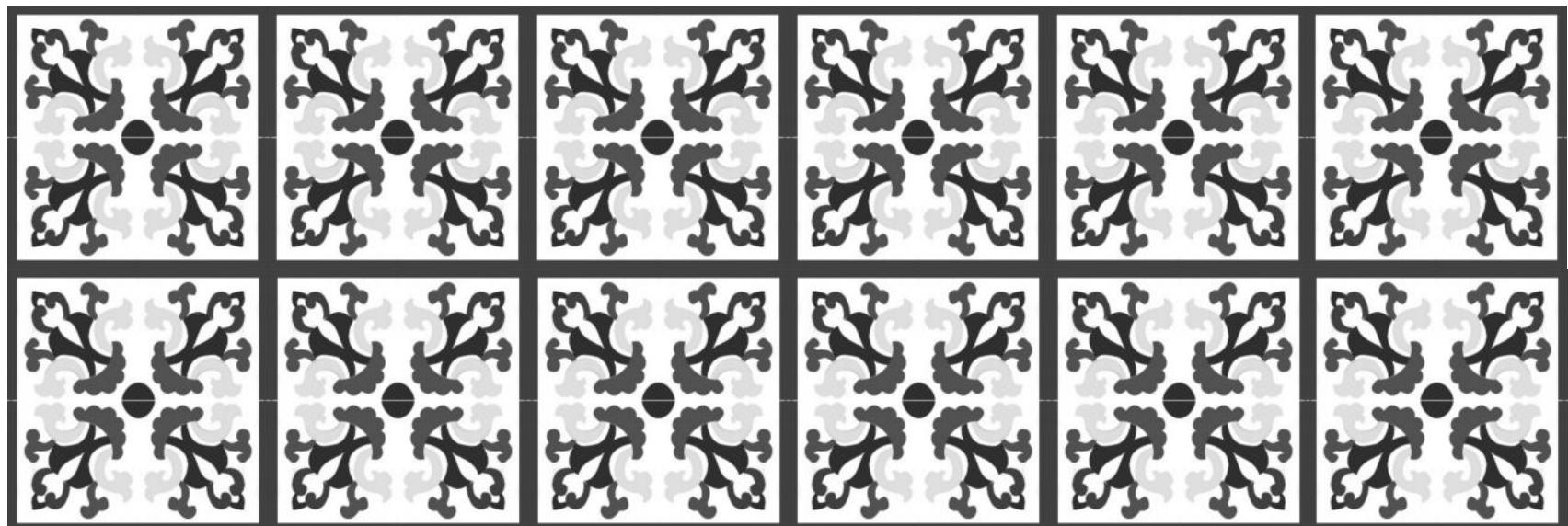


Fig. 12.2 Patterning of tile Imagery. Image Source :Author

13. Working in Ceramic Clay Medium

While working with ceramic clay use the following items

1. Crushed plate and container glass
2. Plaster or Hydrocal
3. Wooden mold forms (fig. 13.3 inset)
4. Gram scale
5. Electric kiln with digital controller
6. Dry clay
7. putty knife (or other troweling tool)

Whiting (calcium carbonate) for mold release.

1. Kneading of clay: (fig. 13.1) involves using a clay that is soft enough to shape with ease. It should be hard enough that it won't stick to your hands when you draw them away from the clay. Thick canvas cloth or dry concrete are suitable kneading surfaces. Canvas will keep the clay from sticking to tables and other surfaces. Ensure that the surface is clean, and is at a height that will allow you to be comfortable when pressing down on the clay. Throw the clay down forcefully onto the kneading surface. Do not flatten the clay completely. Push the clay down about halfway to the kneading surface.

Draw the clay towards you. Pull the clay up into a pile. Push down on the clay until you have flattened it halfway. Ensure that you do not press the clay past the middle section of the lump. Continue to draw and press the clay ten times more.

2. Molding the tiles : (fig. 13.3) The molds used to form each tile are made from 2x2 inch boards, a removable Hydrocal bottom and a piece of screen material that helps the tile release from the mold.



Fig. 13.1 Kneading of clay



Fig. 13.2 Tools used for tile making



Fig. 13.3 (inset) wooden frame for tile making & final tile imagery.

Finishing

Scrape and brush any clay and mold release from the boards and sponge off the mold bottom. Every two cycles, soak the mold bottoms for a couple of hours in clear water, then wipe them off and dry them out a little. Otherwise the sodium solution will clog and degrade the mold.

After about 30 minutes on the warming plate, the tile should seem pretty dry. Pull off the release screen from the tile and rinse it off for another use. Make a solution of dry clay and water and brush the back of the tile. This prevents it from sticking to the kiln shelf.

Brush the top with some of the 10% soda ash solution. The sodium in the tile and the soda you brush on the surface form a continuous surface glaze during firing.

Ref. <http://ceramicartsdaily.org/education/college-level-ceramics-assignments/recycled-glass-and-clay-tiles/>

Bisque Firing

Firing is the most critical part of the ceramics process because it is the one thing that makes clay durable, hence ceramic. Electric kiln firing is one of the most common firing methods because electric pottery kilns are readily available and simple to install. Place the tile on a kiln shelf.

You need to fire these tiles on shelves because they get too soft during firing to be self-supporting. Use the thinnest kiln shelf you can find, to save energy and because thick shelves cause a big lag between the kiln temperature and the actual temperature experienced by the piece. Fire as follows:

**Up quickly to 250°F and hold for 15 minutes
30 minutes up to 1000°F and hold for 15 minutes
30 minutes up to 1760°F and hold for 15 minutes
Cool normally**

This is a total controlled kiln time of just 1½ hours. If you have a slower kiln, try using the same temperature set points. If your kiln is too slow, the self-glazing may not work as well because the glass may de-vitrify.

Image Source:
<http://louieinjapan.blogspot.in/2010/11/glazing-and-kiln-loading.html>

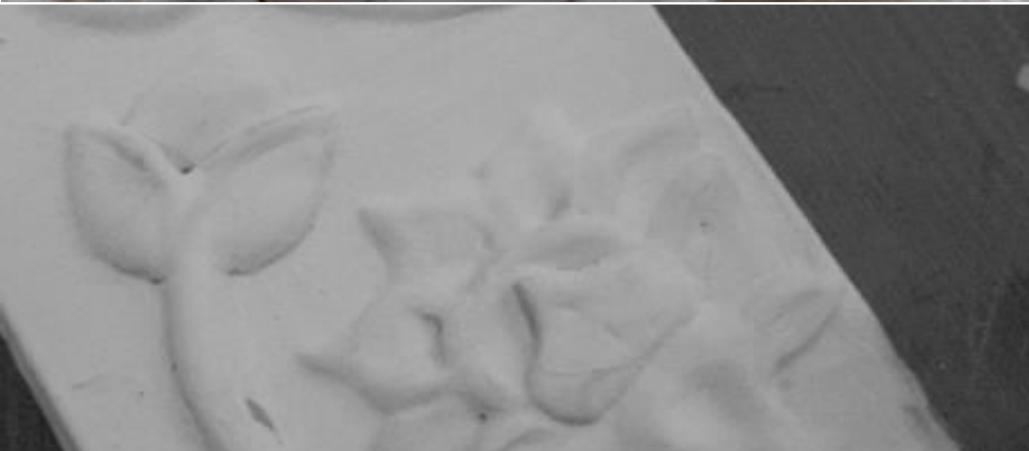




Pic. 13.4 Initial Buddha imagery work. Image Source :Author



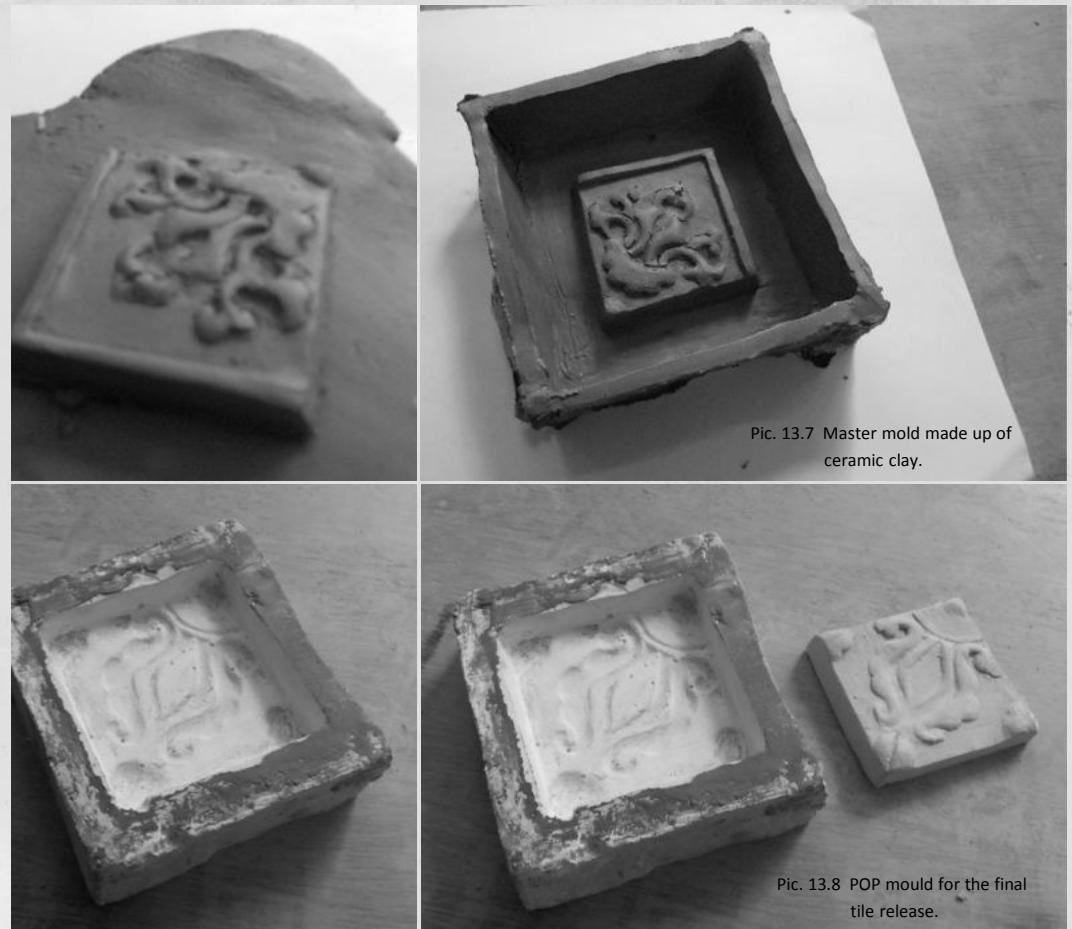
Pic. 13.5 Initial Buddha imagery work. Image Source :Author



Pic. 13.6 Initial Buddha imagery work. Image Source :Author

The Thangka art inspired imagery was further converted into master mold using Ceramic clay. The features of Thangka art were depicted as embedded features on the tiles which after the firing can be glazed. Clay knife was used to get the appropriate finish . Plaster of Paris was used to make the master mold . The POP mold requires further finishing & smoothening to achieve the best possible outcome.

The draft angle & mold angle relief was considered while making the mold. The size of the tile was considered as 2 inch x 2 inch. Every 4 smaller tiles will be combined after release to make a bigger tile of size 4 inch x4 inch . Once the tiles are released they are kept for drying at normal temperature.





Pic. 13.9 Thangka inspired tile imagery



Pic. 13.10 Thangka inspired tile imagery



Pic. 13.11 Thangka inspired tile imagery

14. Experiencing the final outcome

The derived patterned tiles can be used to enhance the various spaces and interiors to develop mystic yet contemporary feel to the ambience.

The outcome were rendered to understand the beauty of the patterned tiles and their use in various scenarios and surroundings.



Image. 14.1 Render Tiled pattern based on Thangka Art

Final Render



Image. 14.2 Render Wall mounted artwork inspired from Buddhist Imagery



Final Render



The Wall Pattern

The elements of fire and cloud from the Thangka Art can be articulated in the form of pattern in the tiles which can actually improve the aesthetics of the wall and the spaces in the public and locales.

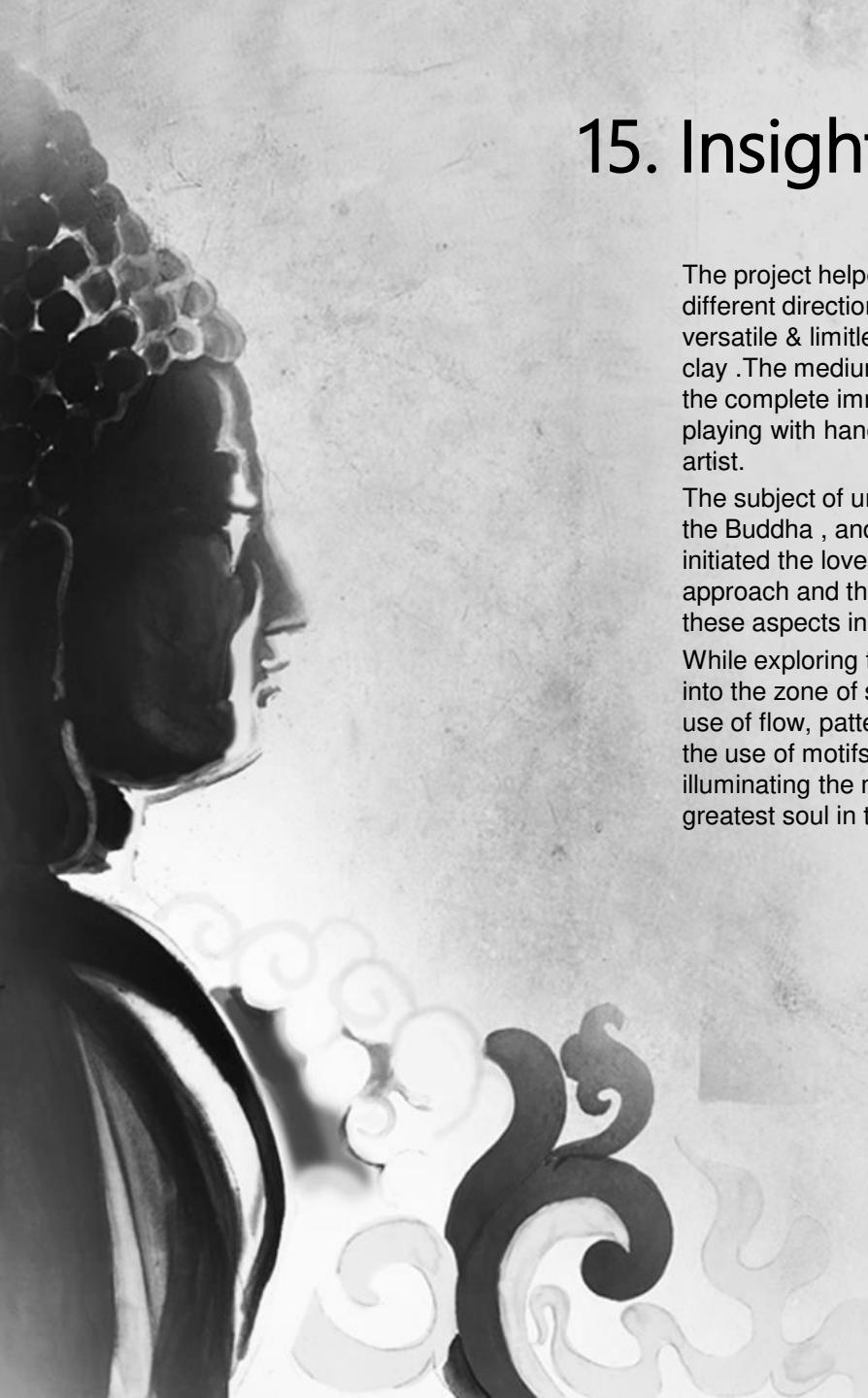


Image. 14.3 Render Tiled pattern based on Thangka Art



Image. 14.4 Render Tiled pattern & Wall mounted artwork based on Buddhist Imagery

15. Insights



The project helped me to think in a different direction while dealing with a versatile & limitless medium of ceramic clay. The medium of clay demands for the complete immersion of thoughts and playing with hands and tools by the artist.

The subject of understanding Gautama the Buddha, and his philosophy initiated the love for the illustrative approach and then embodiment of these aspects in the final form of tiles.

While exploring the medium i delved into the zone of simplistic details and use of flow, patterns and understanding the use of motifs & elements thereby illuminating the mysticism related to the greatest soul in the humanity.

16. References

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