



The SUPPORT Arts and Crafts
International Centre of Thailand
(Public Organization)



Types of Handicrafts

Ceramics



Ceramic is a branch of knowledge that exists throughout human civilization for a very long time. Like many other arts, there are many forms of ceramic; some are emphasized on utility and other forms are emphasized on aesthetic expression. Creation of ceramic products concerns many different methods and techniques which produce variety of products. Ceramic production is also improving continuously, in order to answer the market's demands, and to promote ceramic products as renowned export products, whether in the country and abroad.





Ceramics and the Arts and Handicrafts

Ceramics found in the Arts and Handicrafts are known as Whiteware, or Traditional Ceramics; for examples, bowl, dish, sanitary ware, ceramic insulator, floor, wall, and roof tile, refractory material, furnace plate, brick, plant pot, water jar, mirror and glass, cement, gypsum, plaster, etc. These products are made of the main ingredients, namely, Ball Clay, Kaolin (or China Clay), Red Clay, Feldspar, sand, limestone, Pottery stone, quartz, and other minerals. Ceramics products can be categorized by their main ingredients, as follow.

Earthenware; Earthenware is a type of ceramic product with a long history. It is made from abundantly available clay in the local area, and contains high concentration of iron. Earthenware is formed by molding, and then burn at low temperature. The products are in reddish brown, with solid and firm texture, with opaque glazing and some porosity. The Earthenware is quite thicker, its texture is porous and quite easily brittle if come into contact with hard object. Earthenware is mostly used for household's appliances, such as, bowl, dish, etc.





Stoneware; Stoneware is a type of ceramic products made from mixing Kaolin with rock and sand. Stoneware is mostly white and gray, and it is formed by molding from semi liquid clay, and then baked at high temperature. After glaze firing, Stoneware' rate of water absorption will be less than 3 percents. Stoneware has opaque texture, and comes in different colors, from yellowish white, to grey and brown. Sometime Stoneware contains black spots in its texture, which separate Stoneware from other ceramic products. Such black spots can be in the form of whether coarse or fine spots. Good Stoneware must be baked at longer period of time, under incomplete combustion; or great reduction without deforming.

Earthenware and Stoneware products are normally less graceful, in term of the products'

texture. The craftsmen improve their product by glazing, and marking pattern and finishing the products with coloring. Glazing is a technique found back the time of ancient Egypt, and it is still a popular technique, as it grants beautiful colors to ceramic products.

Porcelain; Porcelain is ceramic products with fine - white texture, almost transparent. Taping Porcelain products creates metallic-like resonant ringing. Porcelain is created by firing the product at the temperature between 1,250 and 1,400 degree Celsius. Porcelain's texture is very firm, where the clay is fused together in a glass-like substance that does not absorb water. Porcelain can withstand compact and is hardly break or crack. Porcelain products have firm and fine texture, shiny surface. They are beautiful and mostly used as appliances or accessories.



Bone China; Bone China products have thin texture, with glass-like transparency. After complete firing, the products will be really strong. Tapping a Bone China product creates bell-like ringing. Bone China products are the finest pottery and mostly used as ornaments and accessories.

Main ingredients for preparation of Bone China products are ashes of animal bone, mostly cow's bone; at the ratio of 50 percents of bone, 25 percents of China clay, and 25 percents of Feldspar.

Terra Cotta products; Terra Cotta is made at the temperature between 750 and 800 degree Celsius, and between 1,050 and 1,100 degree Celsius. Terra Cotta products contain large amount of sand. Some have tough and fine texture. Terra Cotta products are mostly made without glazing, where the result is reddish – orange earthenware. It has water absorption rate of over 7 percents, and it is weaker than earthenware baked in high temperature furnace, but also cheaper from lower temperature baking and no glazing. Nowadays, Terra Cotta products are still produced in the rural area, in the form of local earthenware, and mostly used as accessories for household or garden, or made in the form of vases.



Coloring of ceramic products is also an important component of ceramic production. This process boosts the products' beauty and esthetic value, attractiveness and value. There are 3 main types of ceramic coloring, namely.

Under-glazing coloring; colors used for this type have high melting point and they must be chosen appropriately with the raw material and glazing agent.

- Colors can be mixed with glazing agent, which is known as 'color glazing.'

- Colors can be mixed directly into the raw material and create unique color earthenware.

- Colors can be painted onto the unbaked ceramic products, then coated with glazing solution and then bake. The result is colorful ceramic product.

Over-glazing coloring; this technique applies color over glazed products then re-bakes the products, in order to melt the colors onto the first layer of glaze. Over-glazing coloring provides more colorful result than Under-glazing coloring, and it is used for ornaments or products for show, and not for real practical products. This is because colors can be melt with acetic acid and become poisonous to the consumer.

Color glazing (glazing solution; glazing solution is a silicate-based compound, the same substance of ceramic product, mixed with other components that act as fusion agent, known as flux. Once baked, color glazing on the product will melt and fuse with the product's texture. Once cold, the glazing will turn into glass-like layer over the ceramic texture, hence reveals the underlying color of the clay used.



History of ceramics in Thailand

From the arts of Ban Chiang Earthenware to Sukhothai Chinaware to the present days; Thai earthenware has developed and improved its forms and methods from simple local arts and handicrafts, mainly used for daily application and closely related to the lifestyle of Thai people, to the earthenware industry that represents unique identity of Thailand.

In Thailand, evidences of ceramic production were unearthed from Ban Kao Sub-district, Mueang District, Kanchanaburi Province. Earthenware found there was not glazed, and approximately 4,000 years old. Another site is Ban Chiang Village, Nong Han District of Udon Thani Province, which is approximately 4,000 years old as well. However, earthenware from Ban Chiang was painted with liquid laterite, in a form of spiral-like pattern. From these evidences, it was assumed that ceramic production in Thailand was first introduced over 4,000 years ago.

Back to the time of Sukhothai Kingdom, King Ramkhamhaeng the Great invited sculptors from China to produce ceramic products in Sukhothai. They built furnaces for such purpose, which were known as Tao Turiang, in the vicinity of old Sukhothai City. Later, they moved the production site to Barn Kor Noi Village, Si Satchanalai Sub-district, where several remains of furnaces can be seen to this day. Sukhothai' ceramic products are well known among Thai and foreign customers, as Sukhothai Chinaware. Sukhothai Chinaware is mostly made in glazed, light green. Sukhothai Era

was therefore the time when ceramic production was most developed and prosperous in the country.

During the time of Ayutthaya Kingdom, there were evidences of ceramic utensils made from Sukhothai Era. Also, Chinaware from China and Japan has entered into the kingdom, during the reign of King Naresuan the Great. Meanwhile, earthenware from the Southern states entered into the country during the reign of King Narai the Great. Therefore, it is assumed that, during the time of Ayutthaya Kingdom, the country ordered custom ceramic products, with Thai pattern, from other countries.





The time of Rattanakosin Era is considered to be the restoration of arts and cultures, where the focus was mainly placed on painter. Chinaware from China was imported and the finished with Thai patters by Thai craftsmen; most of these products were dish, bowl, chamber pot, etc. The popular coloring pattern for them was Benjarong Pattern (Pattern of the Five Colors), such as, painting the image of Garuda, Lion and Angel on dish and bowl. Ceramic products were thus popular once more, and they have been constantly improving since. Many more patterns were created, and mostly were adapted from Chinese patterns, which were adjusted to the tastes of Thai people and painted with gold color, such as, Rose Patter, Chinese Flower Pattern, Lion Pattern, etc. The reign of King Rama V was the time that the arts and handicrafts of ceramic products had flourished the most. Craftsmen attended academic training on ceramic production, foreign ceramics products were imported and distributed in the country, especially products from Europe and Japan, and mostly were utensils and household's accessories. During the reign of King Rama VI and King Rama VII, all industries were slowing down, including ceramic production. However, ceramic products were generally manufactured and used for daily life, such as, water jar and pot, most of them were not glazed.

After the regime change, ceramic products once again gained more popularity. Craftsmen traveled to attend training in Japan and America, and returned to survey the source of raw materials in the country, as well as to specify the guideline for improving Thailand's ceramic production industry. During this time, ceramic production was mainly done in the household, whether for their own usage, and some were for distribution. Anyway, majority of ceramic products were still imported from other countries.

After World War II, Thailand's ceramic production was improved once again, after discovery of large deposit of Kaolin in Lampang Province. This discovery led to industrial production of 'Cock Brand' dish and bowl, which are manufactured almost entirely with Kaolin from Lampang. Such discovery of Kaolin deposit also provides Thailand with high quality raw material for ceramic production.





Tales of Ceramics and the people's lifestyle

In the past, since the time of Sukhothai Kingdom, majority of ceramic products were utensils, such as, bowl, dish, jar, pot, etc, and general household's appliances. Ceramic product was eventually evolved into a type of Arts and Handicrafts that we see today. Around 1995, ceramic products were made in novel – creative forms, and focused on simplicity, such as, animal figure or colorful container, as well as Benjarong Porcelain. Afterward, ceramic products were developed with contemporary and modern idea that fit perfectly with the present days.

Designing ceramic workpiece is both a science and an art. Current design principle is comprised of various ideas, concepts, and techniques. However, the designs of ceramic workpiece during the 20th century are still very popular and inherited, such as, the designs that mainly focus on both utility and functionality, with simple geometric shapes. Current designing principle emphasizes on the using technology in the design, and harmony of a workpiece' esthetic and utility; the design focuses on aesthetic, creative shapes that are also practically useful.



An important aspect of creating ceramic products is unique and novel designing. The designer must come up with his own design, must be meticulous in his work, concentrates on turning his imagination into reality, and allowing the reality to influence his imagination. The workpiece must tell a story, its origin, and underlying reason of the design.

It can be seen that designing of a workpiece is always important and necessary to the people's life in the society. This is because ceramic products, whether small or large, are all started from the design phase. From small and simple workpiece, such as, dish and bowl, to the more graceful and prestigious Benjarong Porcelain, then to modernized ceramic products, such as, ceramic dish with leaf pattern, strange looking vase, and beautiful sculptors; all of these are beautiful ceramic products that can excellently answer the demands of modern consumers



Ceramics and Belief and Ritual

Before introduction of ceramic product, Thai people used earthenware for utensils and appliances in their daily life. This included the use of earthenware in our ritual and belief. Evidences suggested that earthenware was used as an integral part for the following rituals.

Burial

Earthenware was an important tool for human's life, since the dawn of time. Human used earthenware to perform many rituals, in accordance to the belief of their society, such as, for burying the death. The deceased will be placed into a pot, whether the whole body or some of the bone. Burial with earthenware is an ancient tradition for managing death body, especially among ancient Asian tribes. Sometimes, smaller earthenwares, which held the valuable objects or personal belongings, would be placed in the pot, along with the deceased as well. This was done as the people believed that the deceased would use them in the afterlife. Earthenware for the burial was usually made in specialized formats, such as, large pot with picture of elephant, monkey on it, or a jug with an image of a person's face on it, even pot with cover that holds an image of a person's face. Earthenware used for holding ashes was normally kept and buried around religious place.





Method for manufacturing ceramic products

Clay preparation

appropriate clay must be prepared for specific type of ceramic product. The clay will be pressed or massaged, in order to eliminate air bubble.

Molding the clay

using Para rubber mold that has been made with different patterns, such as, leaf, lace, checker, etc. The clay will be pressed and stretched into long plate, with regular thickness, and then casted onto the mold. The Para rubber mold will be placed over the clay plate, and the pressed, in order to cast a clear pattern onto the clay. The excessive material will be trimmed from the edge until the desired shape is acquired. The work-piece will be place on other set of mold and plaster is used to cast outer mold and to create desired shape of product, such as, dish or bowl. The cast will be left to dry for 1 – 2 days.

Baking or firing

the first firing is known as ‘Biscuit Firing’, and done at the temperature of 800 – 900 degree Celsius, for approximately 4 – 5 hours. The workpiece will be left to cool down afterward.

Once it is cold enough

the workpiece will colored, whether by painting with under glazing color, or spraying, with the craftsman’s imagination. Other techniques can be used as well, such as, color soaking, color pouring, dressing with brush, etc. The workpiece will be left to dry.

Another firing

which is known as ‘Glost Firing’ (or Glaze Firing), and done at the temperature of 1,200 – 1,250 degree Celsius, for approximately 10 hours. The workpiece will be left to cool down. After it is cooled down, ceramic product can be used immediately.





The Arts and Handicrafts of ceramic products are, still, creating great reputation for Thailand, in term of the quality of the country's ceramic products. Foreign customers have so much confidence in ceramic products from Thailand, as they are beautiful, durable, and affordable at reasonable price. Ceramic products are thus very interesting, and continuously improving. The industry continues to produce more modernized products. And the demands for Thailand's ceramic products are very high among tourists. Though many

products from European Arts and Handicrafts are making their way into Thailand, and gaining some popularity; reputation of Thailand's ceramic products are second to none. It is a pride of the Thai people, to make their local handicraft become known internationally, and to improve their production proficiency, in order to push ceramic products among the top exported products of Thailand. Doing so is, in turn, improving the country's economical development, and serving as another mean to spread income to the local community



Information sources and referenced documents for preparation of this article

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