

# “ POTTERY WHEELS IN CERAMIC ART “

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## **ABSTRACT**

*With the use of pottery wheel which is a turning point in Ceramic Art, the speed of ceramic production and also the quality of the products is increased. This increase and the development has been taken long period. In this period the development of pottery wheel is nourished from the technic and technologic opportunities and it became more functional and prevalent.*

*The primitive and developed types of pottery wheel could be seen also today, which is the basic tool of traditional and industrial production. This situation is closely related with the tradition, habit and also the culture. In the extent of this study the pottery wheels which are used in ceramic shaping (with hand, foot, treadle, and electric) according to the working principles will be discussed with the view of formal and intercultural distinctions. And also pottery wheels which are in use today will be discussed.*

**Keywords:** Tradition, Pottery, Ceramic, Art, Pottery Wheel.

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## INTRODUCTION

The pottery wheel which is a tool used in the shaping of traditional pots are made of wood, Stone, clay or metal and it turns on the pivot. The primitive wheels which are used by sitting on the floor for the facilities to hand shaping method. They are generally flat disks, shards, convex or concave disks. First samples could be seen with the Halaf, Obeyd, Uruk cultures of Chalcolithic Period, and also used in China. Even the difference could be seen on the pottery wheels which are used from Chalcolithic Period to present day; its substantially related with tradition, habit, and also the culture. As seen in Egypt, the usage of pottery Wheel has continued to be used for many years without any change even it had seen. Kick Wheel which is the developed type of pottery Wheel's common usage could be seen in Bronze Age in Hittite culture's ceramics. Treadle wheels the speed of which is controlled with a pedal, first has been used in England. After the second half of the 20th century with the technic and technologic developments, electric wheels became prevalent.

In Turkish as the "çömlekçi çarkı, çömlekçi tezgâhı, torna, seramik tornası ve çamur tornası" terms are used to define this tool. The pottery wheels which are used all around the world commonly used in Anatolia prevalently also. In the sources of which is the traditional pottery is searched are not discussed so much about the pottery wheels. First research made in Anatolia is made by Prof. Güngör Güner. After her research she published the (1972-77) "Anadolu'da Yaşamakta Olan İlkel Çömlekçilik". With this research she determined the situation of traditional pottery in Anatolia and classified the pottery wheels used in Anatolia. When all the sources and the book of Güner are analyzed, it's possible to classify the pottery wheels to the function, form, and the using ways of it.

In the determination of Güner, the wheels are classified as hand wheels, which are fastened by hand. Kick wheels which are kicked by foot and also the wheels operated by an apprentice. But the classification according to the historical period or to the cultures, that is not possible to follow the chronology. Because the developments which had seen in each culture are synchronous. Except all today four types of wheels still have been in use in different parts of the world. In a general classification pottery wheels according to the using principles;

1. Hand Wheels
2. Kick Wheels
3. Treadle Wheels
4. Electric Wheels
- 1.1. Hand Wheels

...will be discussed in four capital headings.

## 1.1. Hand Wheels

It is called as hand wheels because of the using way of it, and also it is started to be used for simplifying the coiling method. Hand wheels amde of stone, clay or wood flat disks. In Turkish and some other languages its called in different ways which are below;

**Turkish:** Ağır Dönen Çömlekçi Çarkı, Döner Tabla, El Çarkı,

**English:** Turn-table, Slow Wheel, Tournette,

**German:** Drehplatte, Formplatte, Langsam Drehende Scheibe,

**French:** Tournette, Tour Lent,

**Japanese:** Terokuro

It is possible to see the usage of hand wheels in China, Japan, Iran, Morrocco, Tunusia, Algeria, Mexico, Kenya, Somali, and also countries of Africa. Hand wheel gives opportunity for constant spinning with hands. The hand wheel which is used in Oaxaca/ Mexico, has similarities with the hand wheel which is used in the Aegean region of Anatolia, in the province of Manisa is Salihli's village of Gökeyüp.

In Oaxaca Mexico a traditional hand wheel is commonly used which is called as "Volteador". It's made of clay or wooden round inverted onto a bowl and the size of it is same with the form which is going to be shaped. (Picture 1-2) But in Gökeyüp village convex disks are put one inside other. This hand wheel called in Gökeyüp as "dönek". The other which is put inside is dönek is called as "kalıp".



Picture 1-2: Pottery Making in Mexico/Oaxaca, (Photo: Archieve Of Zehra Çobanlı.)

The hand wheel used in Far East wooden hand wheel gives opportunity to use it on the floor, and also it spins on a short axle. The spinning is possible with a stick which is hold in right hand, it loactes into the holes that are on the edges of the wheel. The hand wheels used in India and Nepal are made of wood, stone or concrete, with a wide wheel close to the ground. (Picture 3-4)

And also the wheel which is known as the peculiar traditional wheel of India is wooden cart-wheel. It is connected to a short axle on the floor. With the stick hold in the hand, provide the wheel speeden up. It is possible to work on this wheel while standing or squat down position.



Picture 3: Hand Wheel Used in Bhaktapur/Nepal, 1985.



Picture 4: Pottery Wheel Used in India.

The tournette which can be classified in the hand wheels is called as short axled wheel today. In Middle Anatolia, in the province of Mihaliçık, the village of Sorkun, is stil in use. And also the tournette is a tool which is used in ceramic studios.

## 1.2. Kick Wheels

Kick wheels which are the developed type of hand wheel are made of wood, stone or metal. Kick wheel concisit of a small wheel head which takes place up and it is connected to the large wheel that takes place below. The large wheel which is below operated with foot, and while its connected to the wheel head upside, and by this it spins. Because wheel head and the large wheel blow are connected to each of them. Kick wheel which is the developed type of hand wheels called and accepted as an important development in ceramic art. Also it is provide to ceramic production equally increase. Turning more fast than hand wheel's different names are in different languages are below;

**Turkish:** Hızlı Döner Çömlekçi Çarkı, Torna,

**English:** Wheel, Potter's Wheel, Fast Wheel,

**German:** Drehscheibe, Töpferscheibe, Schnelldrehende Scheibe,

**French:** Tour, Tour Rapide,

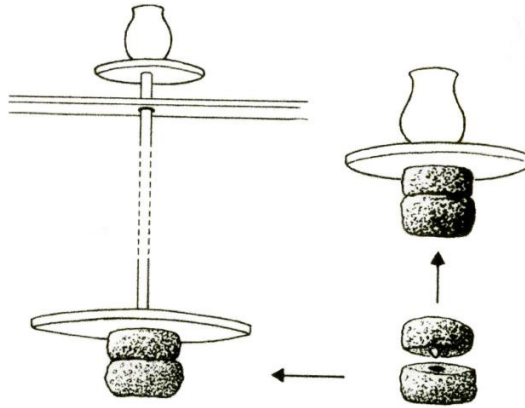
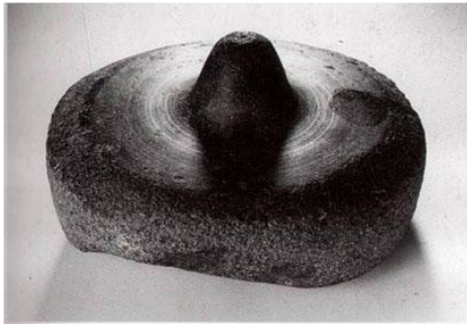
**Japanese:** Kerokuro,

The oldest foundlings for the pottery wheel is found in South Mesopotamia's Uruk-Warka settlement. (almost M.Ö. 3500) According to the Sazcı; its found close to the ceramic kiln and it's 75 cm diameter, 5,6-7.0 cm thickness and 44 kg. weigh. It is possible to be the large wheel of kick wheel. The foundling wheel has a hole in the center of it. It is thought to connected to the long axle which provides connection with the wheel head and wheel. (Picture 5)



Picture 5: Earthenware Wheel Found in Uruk 3000 BC.

Another foundling is a pair of overlapped basalt. It is used as kick wheel that is thought to be used as hand wheel or with an axle it is possible to be used as kick wheel drawings for these possibilities can be seen on the Picture 7 below.



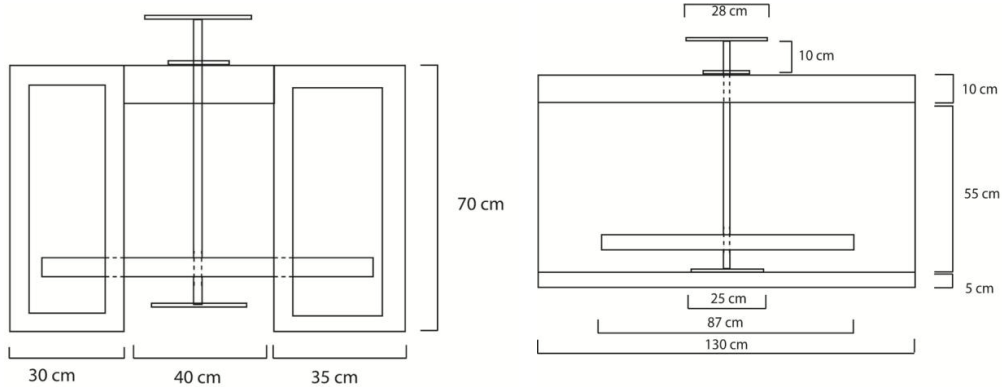
Picture 6: Basalt Excavated in Palestine, 1200-1150 BC. Picture 7: Drawings For The Usage Of Basalt As Hand Wheel Or Kick Wheel.

Different types of kick wheels can be seen in Anatolia, German, France, Italy, U.S.A., Japan, South Korea and China. Kick wheels used in S. Korea are made of metal or wood and they are small in size. (Picture 8-9)



Picture 8: Wooden Kick Wheel Used in S. Korea. Picture 9: Metal Kick Wheel Used in S. Korea.

The kick wheel (wooden or metal) was in use in Anatolia's most pottery centers almost 30 years ago. And it is also in use today at Anadolu University. (Drawing 1) Beside the Anadolu University kick wheels (wooden or metal) and also electric wheels are in use at Dokuz Eylül University, Fine Arts Faculty, Department of Ceramics (in İzmir) as in many traditional pottery centers in the past.



Drawing 1: The Kick Wheel Used at Anadolu University, Fine Arts Faculty, Department of Ceramics

Kick wheels which are not in common use in Anatolia today, in the province of Nevşehir in Avanos, the kick wheel used in the region made of ceramic modules is called as "tepme tezgâh". Today this traditional kick wheel is not in use in Anatolia. With the widespread of electric to the region, masters connecting motor to the kick wheel they made electric wheel. And electric wheels started to be in common use.

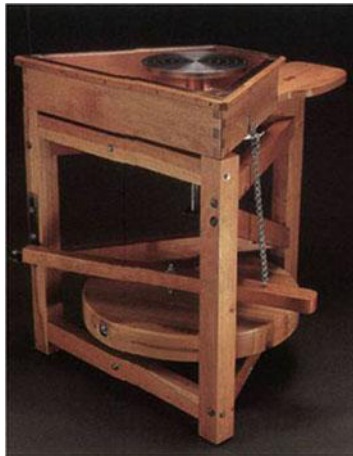
Tepme Tezgâh; is used in Cappadoccia which takes place in a touristic region. But this usage is just to make show to the tourists. (Picture 10)



Picture 10: Traditional Kick Wheel Of Avanos/Nevşehir, (Tepme Tezgâh)

### 1.3. Treadle Wheels

Generally it takes place in a wooden or metal construction. It consists of wheel head, axle and wide wheel. It has some similarities with kick wheels, and it differs from the kick wheel with being more light wheel and speeding up is with a pedal.



Picture 11: Bernard Leach Style Treadle Wheel



Picture 12: Treadle Wheel Used in Kenya

Treadle wheel is also known as Bernard Leach Style Wheels, because Bernard Leach is pioneer English ceramic artist of 20th century, and he is known also with Studio Pottery. The types of treadle wheel can be seen in U.S.A., Spain, Kenya and Turkiye.

#### 1.4. Electric Wheels

Electric wheels which are developed type of hand wheel, kick wheel and treadle wheel, is also the technologic type of all. With the living developments in industry and technology, it took place in human life. Electric wheels which are the developed types of of kick Wheel by connecting motor to the kick Wheel, are now being produced industrially. Today it is used in Universities, art studios, small or big establishments, artist's studios, hobi centers. Japanese Shimpo pottery wheel brand is the best known pottery wheel. And also Rayefco Ltd., Alsager, over 40 years Brent wheels and Paul Soldner wheels Roderveld, Skutt, ans as the Speedball brands could be discussed. Shimpo started to production in 1952 and became a commonly used pottery wheel brand all around the world.



Picture 13: Shimpo Electric Wheel,



Picture 14: Brent Electric Wheel.

Shimpo has the feature of clockwise or counterclockwise spinning feature and its an important advantage of it. Shimpo electric wheels with 100-300-400 W motor speed, 0-210-230-250 RPM speed control, and the price varies 450 to 575 €. For Brent wheels; 120-130 V motor speed, 0-240 RPM speed control, and the price varies 930 to 1695 \$.

Developments in industry give possibility to produce different size of wheels and designs for consumer. Produced wheels are in large variety and also light, it has plug or unplug clay reservoirs, and additional aparates so easy to use and silent types are available. The size of industrial pottery wheels, easy to transport and easy use, but Shimpo wheels which has a small size can cause the backache when you work on the wheel too much. The pottery wheels which are used in Anatolia, can be workable on sitting position that's why it doesn't cause the backache.





*Picture 15: Electric Wheel Used in Japan and Special Working Area For Throwing.*

Far East countries like China and Japan, hand wheels and electric wheels take place in a wooden construction and this provides the master extra spaces for clay, tools, water pot, and shaped forms to put. All this provide the master big advance while working. (Picture 15)



*Picture: 16: Electric Wheel Used in Avanos Province Of Nevşehir, Studio Of Mustafa Yazıcı.*

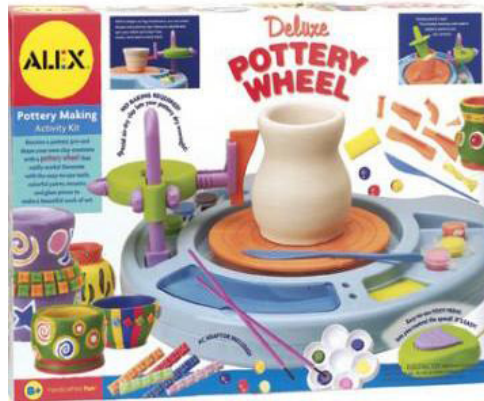


*Picture 17: Electric Wheel Used in Kınık Village Of Bilecik Province, Studio Of Salim Yaşar.*

With the developments in technology and industry, electric wheels and wheels for children with battery designed as a toy and also for disabled people. With the understanding of arts importance on children's development, especially in U.S.A., South Korea and in Japan. These definite countries make projects and prepare books with the aim of understanding and introducing the nursery school and primary school students with clay. Accordingly toy wheels for children in U.S.A., South Korea and as Japan its growing up quickly. Toy wheels are produced for children has some advantages like; provide the child use his eye and hand coordinated, develop his creativity, assist to express himself, develop his handicraft, try and keep on could be nume- rable. Also have a good time with friends and family is the social part of the teaching process.



Picture 18: Brent Brand Pottery Wheel For Disabled



Picture 19: Pottery Wheel For Children, Alex Deluxe Pottery Wheel,

Toy wheels which are designed for children are generally made of plastic or other materials. Kids Craft, Alex Toys, and as Do Arts brands. Produced by these brands and sold 60 to 70 \$. (Picture 19) Pottery wheels which are sold as Junior Potters Wheel, weighs 8 kg, can affordable 44 kg clay, speed control with hand or foot, 20 cm diameter wheel head, Ø: 40 cm, h:15 cm dimensions and sold 360 \$.

## CONCLUSION

Pottery Wheel which is an important shaping tool, hasn't developed too much past to present. When the pottery wheels classified it is better to classify according to the usage principles. Hand, foot, treadle, and electric operated wheels are still in use and also it could be seen all around the world today. This situation is related with the society's culture, tradition and habits.

There are also portative electric wheels which have different specialities. Easy to use and carrying advantages of it and it is for disabled people, and has different types for children as toy wheels are the important groups of it. With presenting the toy wheels to the children, it provides children's development and introducing them with early ages has dual mission. When the pottery wheels used in ceramic art and ceramic craft are searched, it could be seen that is used all around the world. Developing during thousands of years, it has been used in different shapes and specialities as an indispensable shaping tool.

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