

## THE TRIPOD: A RARELY MENTIONED FURNITURE TYPE

**Regina Raycheva, Desislava Angelova**  
**University of Forestry, Sofia, Bulgaria**  
**e-mail: r\_raycheva@ltu.bg; d.angelova@ltu.bg**

### ABSTRACT

In the article, a rarely mentioned in publications furniture type is considered: the tripod. The functional and symbolic meaning of this ancient artefact are researched aiming at revealing its role for the emergence of other furniture types in the XVIII<sup>th</sup>, XIX<sup>th</sup> and XX<sup>th</sup> C because of the Antique Vogue and the trend for commodity search. Such objects, as stands, tables, trays, tea-tables, etc., are considered. In the process of this research, the role of this ancient archetype is revealed for the creation of modern products with a folding tripod structure, e.g., portable stools, tables, stands, etc.

**Key words:** style, furniture, tripods, tables, archetype, classicism.

### INTRODUCTION

The tripod is an object that accompanies human civilization from long time ago till today. The authors of the present article researched this rarely mentioned object with the aim to answer some questions, like: 1. For how long does the tripod principle exist? 2. What are its functional implementations? 3. What morphology results from its manifold uses? 4. Do modern designers find inspiration in this principle and how? To answer these questions, the research has the task to chronologically follow the evolution of the tripod principle, and to analyze the selected examples by graphic tables. As a result, the importance of this type of objects and structural principle is revealed for modern design; its multiple uses are classified and ordered for better visibility.

### METHODS

Basic method is the chronological follow-up and analysis of different historical exhibits. The limits of the research covered the periods of Neolithic, Antiquity, Middle Ages, Renaissance, etc., to the end of the 20<sup>th</sup> C. Creating a selection of images from reliable sources was the first task. Having chosen the types (the tripod stand, three-legged vessels, three-legged chairs, tables, etc.), further classifications were organized according to criteria, such as **functionality, material, structure, and morphology**. Comparison tables with graphic images were prepared, a timetable, demonstrating the evolution from 2000 B.C. to 2000 in our days. As a result of this graphic analysis, generalization and conclusions about the archetype development are drawn.

**EXPOSE: CHRONOLOGIC OVERVIEW**

**Figure 1: Ceramic tripod, from the geometric period of Cypriote culture, ca. 1050–950 B.C. In the decoration, elements of bronze tripods remained**



**Figure 2: Detail from a red-figure kylix with depiction of Pluto and Persephone, ca. 430 B.C., British Museum, London**



**Figure 3: Robsjohn-Gibbings, low table trapeza, ca. 1925 г., interpretation of a Greek trapeza for Villa Kerylos in Beaulieu-sur-Mer, France**

In its historical essence, the tripod is a stand for something else; it was made in the shape of a ring supported on three animal paws. The top end featured big round handles for carrying. The stand varied in size and materials for different cultures. Terracotta decorative examples survive, such as the ancient Cypriote ceramic tripod, shown on Fig. 1. This object was made as early as the end of the bronze era (Karageorghis, 2000). In the antique period, it was basically a functional object. In ancient Greece, tripods were used for temple offerings. Often represented on vase-paintings was the legend of Hercules, who tried to steal the bronze tripod of the Delphi Oracle. The scene depicted on vases was Hercules fighting with Apollo and pull the tripod from both sides. Tripods exist in Egyptian culture (and also a four-legged variety) as an amphora stand. It is known that

ceramic amphorae were made in a shape that allowed them to transport wine and food in ships by arranging them in rows. The lowest row was placed in a sand layer on the bottom of the ship, so that the vessels would not break from the ship's rocking (Twede, 2002). To keep the amphorae upright in their homes, people needed stands. In Ancient Egypt, ceramic 'trumpet'-shaped stands were made; four-legged wooden stands, as well as of other materials. In the period of ancient Rome, it was used to support vessels with round bottom, such as amphorae, bronze cauldrons used for cooking food. The same principle was used to make stands for hanging lamps; they were made as tall columns on a low tripod. These two principal varieties were interpreted in 18<sup>th</sup> C. Europe, during the neo-classicist period.



**Figure 4: Round table with three lion's legs, ceramic model, II-I C B.C., The Louvre Museum, Paris**



**Figure 5: Tripod table, ceramic model, b/n I and II C B.C., The Louvre Museum, Paris**



**Figure 6: A cast made from volcanic ash, from a carved wooden table 2000-1700 B.C. Archeologic Museum, Fira, Santorini**

The tripod structure has other expressions. In Ancient Greece, the so-called 'trapeza' or small table with a trapezoid or round top, placed in front of the kline, or couch, during feasts (Fig. 3). The trapeza was actually a food tray with trapezoid shape, mounted on three legs; two of them were placed on both sides of the table; on the opposite side, the third leg was mounted. Till the 6th C B.C., feasting was done in a seated position, with a small table placed in front of every guest. After the 6th C. B.C., in Ancient Greece feasting was done with a reclining body position on high kline couches. The couch was climbed upon by a footstool in front of it. The trapeza table, therefore, is closer to a tray on legs than a traditional large dining table the way we understand it today. After the feast was over, the whole table was taken away, when a certain dish was finished.

Vase drawings of feasting men and women show that the man is reclining with his left hand on a cushion, and the right was free to hold the cup. Women were always depicted sitting on the couch (like we sit on a sofa today), with their legs either hanging or on the footrest (Fig. 2). The total height of a Greek kline (from 70 to 90 cm) leaves around

40-50 cm height of the table in front and under it. A reconstruction was done by Robsjohn-Gibbins called "Greek trapeza table" from the villa of Théodore Reinach (Fig. 3).

According to the legend, the Delphi Oracle also sat on a tripod: on a vase-painting on red-figure kylix is shown the oracle seated on a high tripod. In Antiquity, the tripod scheme was used more for tables: the so-called trapeza table was supported by three legs for stability. Ceramic models of three-legged tables are kept in The Louvre Museum (Fig.4, 5); such exhibits were found during archeologic digs at Akrotiri, Santorini (Fig. 6).

For solely functional objects such as tripod candlestick stands, the metal tripod was developed, made also as a folding structure.

During the Roman era, tripods were widely used, including folding structure for stands, tables of different size, as well as braziers; also possibly used as small craftsmen stools.

Bronze tripods, found in Pompeii, are of special interest, because they represent a classic application of this type of structure. They demonstrate the folding type with four hinged joints of X-scissors with the uprights,

a total of three X-pairs for the three legs. Two of them at the bottom were attached on an additional slider or the leg could also be used as such slider.

Tripods were also used for lamp stands in Antiquity. While with stands, the tripod

structure was used to allow for a wider span for stability, the antique lampstands had a different principle. The three legs form a stable base for a tall column with hooks on top for hanging lamps (Fig. 7).



**Figure 7: Etruscan bronze tripod for incense, IV C. B. C., Metropolitan Museum, New York**



**Figure 8: Saut-de-lit (washstand) from the emperor bedroom in Fontainebleau. Musée national du Château de Fontainebleau**



**Figure 9: Athénienne with mounts of gilt bronze. Musée des arts décoratifs, Paris**

In the 18<sup>th</sup> C., Greek and Roman tripods were restored with considerable imagination for creation of different types. A tripod washbasin, called *saut-de-lit* in French, was an accessory for Empire style bedrooms (Fig. 8). The tripod was accompanied by a ring on top, where a porcelain washbasin was added; at the lower end of the legs, a triangular shelf for the jug was mounted. The whole structure was supported by a triangular base with concave sides. The three legs top ended with

bronze swan heads. A tripod stand for statues was called an *athénienne* (Fig. 9). It appeared in 1773, invented probably by Jean-Henri Eberts, who advertised in with an engraving in the press (Kisluk-Grosheide et al., 2006). These stands originate from perfume burners, and could be used as washbasin stand, or for perfume burner, or food warmer, or jardinière (Kisluk-Grosheide et al., 2006).



**Figure 10: Candle stand designed by Robert Adam, 1771-1774, Victoria&Albert Museum, London.**



**Figure 11: Tripod tea table with sockets for porcelain cups, 1737, Victoria&Albert Museum, London.**



**Figure 12: Walking stick-folding chair, Thonet, 1885**

The *guéridon* is the French name of a small round table, often made with antique tripod supporting structure. Tripod structures were also used for the so-called *cassolettes*, i.e., perfume burners. The Scottish architect Robert Adam designed 2 candlestands with a triangular base in the shape of antique Roman offering altar (Fig. 10), arranged in pairs flanking a mirror, on pedestals. The reflections in the mirror doubled the light of candles. The stands were painted light blue with white ornaments, to match the color scheme of the dining room. They were composed of separate carved elements, such as sphinxes, ram's heads, masks, moldings, garlands, etc. (Tomlin, 1972). The elements were attached on the base with dowels. Another British interior accessory were tea tables on a tripod stand, made from the period of Queen Anne (1700-1714) with a structure, consisting of a central column on three legs, over it a wooden cage served as a support of the round tea tray (Fig. 11). Tripod tables were used as a tray with legs; when not in use, the tray was turned vertical, and the table stood against the wall. Tea-drinking, an exotic social habit in the 18<sup>th</sup> C, made use of imported tea and Chi-

nese porcelain teacups. The tea table was introduced as a furniture piece in the end of the 17<sup>th</sup> C. Around 1700, 6000 lacquered tea tables were imported by the East India Company; but by the mid-18<sup>th</sup> C., London cabinetmakers manufactured the alternative variety for the luxurious market from mahogany (Gilbert and Murdoch, 1993). During the rococo period, the top was made with 'pie-crust' rail, to keep cups from falling, which imitated the design of porcelain vessels. The 19<sup>th</sup> C. manufactured tripods of all sizes. The frames set by the tripod archetype contain the following functional varieties:

1. a *guéridon* or round table standing next to an armchair or sofa; it was used for placing decorative objects.
2. lectern with inclined top to put books or music scores; it was placed in libraries.
3. heavy round tables for statuettes or vases for central arrangement in official halls or stair vestibule. The floor pattern could determine their central position.
4. *jardinière* or flower stand. This object was related to the interest towards exotic plants in the 19<sup>th</sup> C.

5. *saut-de-lit* or washbasin stand in the Empire style in France;
6. *athénienne* table, in the Empire style in France.
7. candlestick stand.
8. perfume burner (*brule parfum*, *casolette*) stand.
9. worktable stand with a cloth bag under the top. In the Biedermeier style they were made with spherical design.
10. round tables on a tripod stand with a folding top turned vertically.
11. artist's easel.
12. chair.
13. stool.
14. walking stick-folding stool.
15. coat-hanger.
16. large round dining table from the Biedermeier style, used to form a center group with the chairs.

Thonet company manufactured most of the historic stand types. We could say that not one of the above types was missed: washbasin stand, reading table, walking stick – folding chair (Fig.12); flowerpot stand; music score stands. We can also add the famous coat-hanger for Café Daum from 1849, where the tripod was transformed into four-legged base. The tripod structure was easily transformed into a bentwood stand; it also changed easily into a four-legged stand used widely for rotating chairs and the typical Thonet table stands.

Of the wide range of objects on tripod stand, modern designers interpret the coat hangers and additional tables; and as modern objects – laptop stands. Scandinavian designers created tripod tables. Alvar Aalto adapted the L-shaped leg to different shapes of tabletops, including a table (Fig. 13). Wegner's fruit bowl has a separate metal tripod and a wide wooden basin to place on top (Fig. 14).



**Figure 13:** Alvar Aalto, three-legged table, 1933 – 1935, Manuf. Artek



**Figure 14:** Hans Wegner, fruit bowl, 1956, ash wood, steel legs. Manuf. P.P. Mobler



**Figure 15:** Philippe Starck, Tippy Jackson, a folding tripod table, Driade, 1985

In the beginning of his career, Philippe Starck was interested not only in three-legged chairs, but also in extension tables on three legs; he was particularly inventive in their interpreting (Fig. 15). The three convex legs are joined in the center under the top in one single tube element, that is used as rotation axis. The top itself was carried by additional vertical parts on the curved legs. It is

with a remarkable freedom, that Starck approaches the tripod structure. We could not possibly miss an object that is actually a tripod stand, although it is not a furniture piece: Juicy Salif, the lemon-squeezer (Fig. 16) by Starck that became designer classic. Another notable table is the Cumano folding table (Fig. 17) by Achille Castiglioni for Zanotta. This table can be turned vertically around the

axis defined by two of the legs and can be changed by the opening in one end. Vico Magistretti was the author of a table with adjustable base – a wooden screw on three legs for

De Padova. In the 21<sup>st</sup> C., designers such as Grcic also exploit the theme, in his Medici table series for the Mattiazzi company (Fig. 18).



**Figure 16:** Philippe Starck, Juicy Salif lemon squeezer 1990, Alessi



**Figure 17:** Achille Castiglioni, Cumano folding table, 1979, Zanotta



**Figure 18:** Constantine Grcic, table of the Medici series, Mattiazzi

## RESULTS AND DISCUSSION

### Occurrence (Timeline – Table 1)

As was said above, the tripod is a very sustainable archetype, we see it steadily appearing both as a functional or artistic object for a very long time period, accompanying human civilizations from its dawn (2000 BC) to present day, as demonstrated in the timeline.

### Symbolical meaning

The tripod came to being with a direct connection to fire and the preparation of food. In its most ancient sense, this artefact was closely linked to the ancient (archaic) dwelling, more specifically in its minimal archetype, as a single cell with a fireplace in the center. So, the tripod, placed over fire, was used as a cooking utensil. The fire connection remains in its later use as a brazier and even later, as a stand for perfume burners. The ancient legend of the Delphi Oracle sitting on her tripod above the crevice in her shrine and breathing in the fumes is a very strong image of this function. This line of development connects it to the sacred objects found in temples. In connection with burning and light,

the tripod shape historically was used for hanging lamps and placing candlesticks.

### Function

Tripods are basically stands for other objects to be displayed or used, but there is one specific trait: they are stands securing *horizontal position* in cases where liquids are placed in container on top of tripod (bowls, cauldrons). Where and apparatus or device is concerned, we have the requirement of horizontality, such is the case with a photographic camera, machine gun, artist's easel, theodolite, telescope, etc. The levelling tripod is usually in the shape of three rod elements contacting each other at the top or at another point; the resulting shape achieving a "tetrahedron" for stability. The tripod can carry a ring on top for a vessel to be placed. A different approach is used with a receptacle (bowls, cauldrons, amphorae etc.) of round bottom with three separate legs attached under the bottom, so that it can stand. Such morphology is developed with larger objects, e.g., chaise-longue with a similar closed rounded shape (Marc Newson, Lockheed Chaise-long). The shape of the structural members also varies: with a round table top;

a central carrying column with three splaying legs; or a ring on three splaying legs (Wegner's Fruit Bowl). The three supports can be crossed in the middle or on top or could be parallel. The tabletop could be fixed or tilting, the vertical elements can also fold with added scissor-like structures so that the tripod can take less space and be easy to carry for travelling (antique bronze folding tripods). The folding three-legged traveling objects are typical for travelers, for military use, for fishing/artists' folding chairs etc. Hinged in the center, the three rods can also turn and close the tripod, or open to achieve two tetrahedrons one on top of the other. So, from the tripod 'per se', we arrive at a number of objects: bowls, chairs, tables, clothes stand, reading stands, musical score stands, flower-pot stands, gueridons (for decorative objects), tripods for cameras, telescopes, etc.

The folding variety has been widely exploited and developed, as we can see by the example of the Thonet walking stick-folding chair, where the triple hinge in the center consists of three couples of structural elements mutually hinged in one node.

The tripod structure is an archetype which is vital to this very day, always in the focus of creation, because of its minimalism and the easy levelling on uneven floor. The evolution of the type features the following structural schemes: 1. Tetrahedron (Table 3, 1). When stabilizing three tilted elements to connect them at the top, we have a geometric solid tetrahedron. If these elements continue above the point of connection, we arrive at two tetrahedrons one above the other (Table 3, 8). A variety is reached with three straight rod legs, connected with a ring or tabletop (Table 3, 9). Triangular prism (Table 3, 5).

The same principle is used when the tripod consists of three vertical legs parallel to each other, connected to each other by a separate element. Folding Roman tripods are built in this way (Table 3, 9). 3. A column above tripod (Table 3, 3). This scheme features a tall column fixed over a low tripod in order to reach greater height. 4. A tripod scheme with two points of fixing the three legs: the top and the middle (Table 3, 6 and 7).

If the tripod structure is divided into carrying parts and carried parts, then we have legs (carrying parts) and tabletop/ring/chair seat (carried parts).

Legs are interpreted in different materials (bronze, wood, marble, steel etc.). Straight rod legs usually are made of metal or wood. The sculptured legs are either cast bronze, sculpted stone or wood. From Antiquity till the 19<sup>th</sup> C, animal legs are interpreted, such as lion's hind legs, the legs of gazelle, goat, deer, etc. Typical are also combined legs with a hoof with another element: sphinx, lion head, human torso. Hind legs or hoofed legs probably are chosen for furniture legs for the following reasons: the shape of the thigh muscle and the overall bent shape due to the heel joint of the paw. The bent shape of the furniture leg allows for a second point to join the tripod legs at the heel bend.

The tripod is combined with a rectangular or trapezoid tabletop in Greece and Egypt. Tabletops are circular as a rule, or just a ring for placing a bowl. Adding a hinge allows for a folding structure for easy storing and moving. Antique folding tripods use a scissor hinge between each two legs. Modern solutions use telescopic legs.

Table 1:























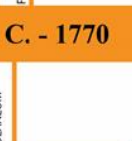
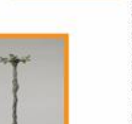





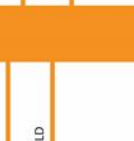





































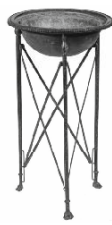


<p>2000-1700 B.C. - CAST MADE FROM VOLCANIC ASH, FIRA, SANTORINI</p>		<p>1450 - 1050 B.C. - BRONZE TRIPOD FROM CYPRUS</p> 	<p>1050 - 950 B.C. - CERAMIC TRIPOD FROM CYPRIOTE CULTURE</p> 	<p>I-III C. C. - CERAMIC MODEL OF ROUND TABLE</p> 	<p>I C. B. C. - ANTIQUE BRONZE TRIPOD FROM POMPEII</p> 	<p>1000 B.C. - 100 A.D. - ROMAN BRONZE FOLDING TRIPOD AND BOWL, BRITISH MUSEUM</p> 	<p>Ca. 1500-1600 - THREE LEGGED CHAIRS, RONDO BY BREUGEL</p> 	<p>XV C - THREE-LEGGED CHAIR, BRIDGEMAN LIBRARY OF ART</p>	<p>XIX-XVII C. - ENGLISH OAK CHAIR</p>	<p>1737 - TRIPOD TEA TABLE WITH SOCIETS FOR PORCELAIN CUPS</p>
<p>2000 B. C. - 1770</p>										
<p>1550 - 1292 B.C. (18<sup>th</sup> DYNASTY IN EGYPT) - OFFERING TABLE, THEBES</p> 	<p>1250 - 1050 B.C. - ROD TRIPOD, CYPRESS</p> 	<p>13<sup>th</sup> C.B.C. - ANCIENT CHINESE BRONZE DING TRIPOD</p> 	<p>430 B.C.C. - GREEK TRAPEZA ON RED-FIGURE CYLIX</p> 	<p>IV C B.C. - ETRUSCAN BRONZE TRIPOD FOR INCENSE, METROPOLITAN MUSEUM</p> 	<p>I C. A.D. - TRIPOD TABLE AS CARBONIZED WOOD, HERCULANEUM</p> 	<p>Ca. 1450 - MADONA WITH THE CHILD</p> 	<p>1400 - 1405 - MEDIEVAL FEAST ON THREE-LEGGED STOOLS, MINIATURE</p>	<p>1750-1770 - TEA TABLE ON TRIPOD, LATER TOP FROM XIX C</p>		
<p>1771-1774 - CANDLESTAND DESIGNED BY ROBERT ADAM</p> 	<p>1774 - BRULE PARFUM, BY PIERRE GOUTHIERE, MADE OF JASPER</p> 	<p>1800 - SAUT-DE-LIT FROM FONTAINEBLEAU</p> 	<p>1850-1900 - FRENCH BRILLE PARFUM, BRONZE</p> 	<p>1884 - TOILET STAND WITH MIRROR NO.2 BY THONET</p> 	<p>1890 - WASHBASIN STAND, MODEL 973 BY JACOB AND JOSEF KOHN</p> 	<p>1980 ca. - TABLE OF THE MEDIC SERIES, BY CONSTANTINE GRACI, MATTIAZZI</p> 	<p>1987 - MIO IN 40 JUST TABLE BY NYCO MATSUI/TETTORE DE PADOVA</p>			
<p>1773 - PAIR OF ATHENIENNES, AFTER JEAN-HEINRI EBERT</p> 	<p>1780 - FRENCH CANDLE STAND WITH SEVRES PORCELAIN PLAQUES</p> 	<p>C. 1800 - CARVED AND GILT ITALIAN GUERIDON</p> 	<p>1800 - GUERIDON FROM TUSCANY</p> 	<p>XIX C - SCULPTED READING STAND MADE OF OAK AND EBONY</p> 	<p>1885 - FLOWERPOOT TABLE MODEL 3 BY THONET</p> 	<p>1933 - THREE-LEGGED TABLE BY ALVARO ALTO</p> 	<p>1985 - TYPPI/JACKSON FOLDING TRIPOD TABLE BY PHILIPPE STARK</p>			
<p>1885 - MUSIK STAND BY J.J. KOHN</p> 	<p>1979 - CUMANO FOLDING TRIPOD TABLE ACHILLE CASTIGLIONI, FOR ZANOTTA</p> 									

Table 2:

TRIPODS FUNCTIONAL TABLE					
STAND WITH A RING FOR RECEPTACLES, BOWLS OR WASHBASINS	STAND FOR AN APPARATUS	STAND FOR FLAT HORIZONTAL SURFACES, TABLETOPS	STAND FOR A CHAIR SEAT OR THREE-LEGGED CHAIRS	STAND FOR AN INCLINED SURFACE EASEL TYPE	FOLDING TRIPOD STAND FOR OBJECTS FOR TRAVELING
 Ceramic Tripod  Washstand  Chinese Ding  Tripod Chinese dish	 Camera on tripod  Telescope on tripod  Globe on tripod	 Tea table on tripod stand  Flowerpot table  Working table  Egyptian offering table	 Egyptian three-legged stool  Medieval three-legged chair  Medici Table by Gric	 Music stand  Reading stand  Artist's Easel	 Walking stick - folding chair  Folding table on tripod  Folding Roman tripod

**Morphology and Structure**

Table 3:

MORPHOLOGY and STRUCTURE					
<p>1</p>   Tetrahedron scheme	<p>2</p>   Vessel on three legs	<p>3</p>   Tetrahedron with a column scheme	<p>4</p>   Tetrahedron with a column scheme, tilting top	<p>5</p>   Triangular prism scheme	
<p>6</p>   Triangular prism scheme with curved legs and a second connecting point	<p>7</p>   Triangular prism scheme with curved legs and a plinth	<p>8</p>   Double tetrahedron scheme, Folding	<p>9</p>   Triangular prism scheme, Folding	<p>10</p>   Double tetrahedron scheme, Folding	

If more height was needed, on the tripod a column was mounted. The central column archetype was interpreted widely in the 19<sup>th</sup> C., as a stand for larger or smaller tables and finally, as a structure for chairs. This stand was already on four legs, and the 20<sup>th</sup> C. witnessed the emergence of the office chair base. The three-legged stand with a counterpoint (two legs opposite the third one) was also implemented in tables, chairs, chaise-longs and coat-hangers or other stands.

### CONCLUSION

The inherent minimalism and polyfunctionality of the tripod are very well understood and interpreted in the 20<sup>th</sup> and 21<sup>st</sup> C design: often folding tripod tables (for dining, for coffee tables) as well as adjustable tables with folding top are interpreted with excellent results. This is true for many noted designers, such as Hans Wegner, Philippe Starck, Vico Magistretti, Achille Castiglioni and Constantin Grcic. The interest manifested for them is a proof of the tripod archetype significance and its validity till today. The structure has always interested designers as a source of minimalistic design solutions to such design challenges as chairs, tables, folding stands, coat hangers, and even citrus squeezers, ranging widely from a purely functional to purely aesthetical solutions.

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- Fig. 12: Zelleke, G., Ottillinger, E., Stritzler, N., Against the Grain, Bentwood Furniture from the Collection of Fern and Manfred Steinfeld, The Art Institute of Chicago, 1993, стр. 115
- Fig. 13: Gura, J. 2007. Scandinavian Furniture, Thames & Hudson Ltd., London, 2007, стр. 215
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Fig. 15: [http://www.starck.com/en/design/categories/furniture/tables.html#tippy\\_jackson](http://www.starck.com/en/design/categories/furniture/tables.html#tippy_jackson)

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UNIVERSITY OF FORESTRY

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