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I declare that the work contained in this submission is my own work and has not been taken from the work of others save to the extent that such work has been cited within the text of this submission.

Student Signature:

Date: 14/04/2022

# **Principles of Furniture and Joinery Design**

## **Semester 2**

### **Coursework 3**

#### **Designer Research**

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**Introduction.**

This written report is an assignment which is part of the Principles of Furniture & Joinery Design module (TIM 2010) given by lecturer Jennifer Byrne in Semester 2 of Year 2 of the Timber Product Technology course TU 732 at TU Dublin. The brief for this assignment is to research a designer by looking at their history, styles, influences, timber preferences, designs and most famous pieces. I have chosen to research the designer, Michael Thonet. Thonet's huge impact on the history and development of furniture design cannot be over-stated, his innovations, particularly the use of bentwood furniture, and 'modern' approach to furniture manufacturing, production and design were truly ground-breaking and ahead of their time. The simple elegance, lightness and flowing designs of Thonet's furniture are as popular today as they were when first developed and introduced over 180 years ago. Thonet's Chair Nr. 14, introduced in 1859, an iconic chair which can be seen in coffee houses throughout the world today, has sold more than 80 million units worldwide to date (14 chair | TON a.s. - Handcrafted for generations, 2020). While the company Thonet produced a wide range of furniture, it is primarily their chairs which most people associate Michael Thonet and his bentwood furniture techniques and designs with. In this report I will look at the work history of Michael Thonet and his company through five of their most iconic chairs which show the development in styles and techniques throughout the history of his career.

**History & Work History Through Five Iconic Chairs.**

- 1836: The Boppard Layerwood Chair.
- 1843: The Liechtenstein Chair.
- 1850: The Café Daum Chair (Model no.4).
- 1859: The Bistro or Consumer Chair (Model no.14).
- 1867: The Demonstration Chair.

### 1836: The Boppard Layerwood Chair.

Michael Thonet was born in Boppard, Trier in Germany in 1796 and died in Vienna, Austria in 1871. The son of a master tanner, he started his career as a carpenter's apprentice, later setting up his own workshop in 1819 specialising initially in parquetry. In the early 1830's Thonet first began to experiment with making furniture out of glue and bent wooden slats. He produced the 'Boppard Layerwood Chair' in 1836, which was his first bentwood success, although he was initially 'unable to obtain a patent in various countries for the chair technology he invented.' ("Boppard Layerwood Chair (1836) – iDesignWiki", 2022). It allowed him to acquire a glue factory giving him the freedom to continue his research into bentwood and glued furniture production.



Figure 1 Boppard Chair. Image obtained from V & A museum.

Figure 1 shows an original example of one of these early bentwood chairs. Note the relatively light structure, unusual for this period, and the gentle curves of the frame, as well as the more decorative curves of the stretcher and mid rail supports. I like the understated simple

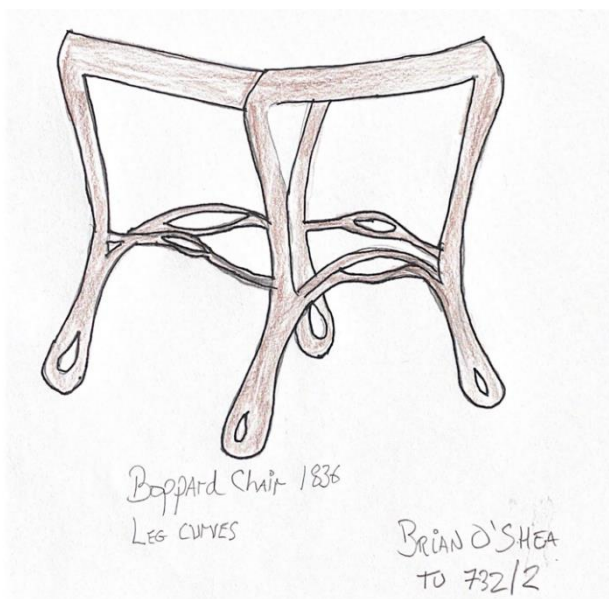


Figure 2 Bentwood Leg Detail.

elegance of this chair which would become a feature of Thonet's future designs. Figure 2 is a sketch of the intricate bentwood leg section of the chair. This would have been ground-breaking at the time; I appreciate and admire Thonet for creating such a beautiful piece by essentially bending glued strips of veneer. He would later go on to refine and develop his wood bending techniques, but this chair marked a significant step in his journey.

### 1843: The Liechtenstein Chair.

In 1841 Thonet met Prince Klemens Wenzel von Metternich who was so enthusiastic about Thonet's furniture that he invited him to Vienna to show his furniture and, in particular, his chairs to the Vienna court and the Imperial Family. After selling the business in Boppard, he emigrated to Vienna with his family 'where the architect Peter Hubert Desvignes commissioned him to produce furniture for the Palais Liechtenstein' ('Thonet Copy – Museum Boppard', 2022). He worked for the next five years



Figure 3 Liechtenstein Chair. Image obtained from Liechtenstein - The Princely Collections.

in the 'Liechtenstein Palace' using his bentwood techniques to great effect. Figure 3 shows a fine example of a Liechtenstein chair from circa 1843. This chair was a significant development and achievement for Thonet and 'formed a sort of prototype for the later series



Figure 4 Back Frame Symmetry & Detail.

models' by creating 'three dimensional bent curves....made possible by using bundles of very fine woods'(VEGESACK, PAULEY & ELLENBERG, 1996). Figure 4 is a sketch of the back frame and support, note the shape and form and wonderful symmetry which will become a major feature in his most successful later chairs. This period working at the Liechtenstein Palace allowed Thonet to refine and develop his bentwood techniques and designs.

### 1850: The Café Daum Chair (Model no.4).

In 1849 Thonet was commissioned by the Café Daum, a popular Viennese café frequented by politicians, military figures and foreign correspondents, to produce a chair for the café - Chair No. 04 was born. This was a hugely significant step as it put 'the chairs on general view for the first time' and soon 'Thonet received an order from Budapest for 400 of the light, flexible and sturdy Café Daum chairs' (Vege sack, Pauley & Ellenberg, 1996). It also marked a transition from the earlier laminated veneer chairs to solid bent wood beech chairs held together using screws. Figure 5 shows a



Figure 5 Model no.4. Image obtained from Pamono.



Figure 6 Mirror Image Bentwood Scrolls.

beautifully restored, original No. 4 chair available for €1,400 from the German based designer furniture dealer – Pamono. Figure 6 shows a sketch of the mirror image scrolls which I like, reminiscent of two seahorses, also note the sturdy yet light look of the original chair: ideal for a coffee shop, it contrasts with the 'simplicity' and more refined elegance of the Palais Liechtenstein chairs.

### 1859: The Bistro/Consumer Chair (Model no.14).

In 1853 Thonet founded the 'Gebrüder Thonet' firm with his sons and the success of his now refined bentwood furniture resulted in international recognition at worldwide fairs and exhibitions. According to Von Vegesack (Vegesack, Pauley & Ellenberg, 1996) 'The demand for bent wood furniture soon outstripped the capacity of Thonet's second workshop in Mollardgasse (Vienna)' and a new production facility was established in the village of Koritschan in Moravia next to an abundant beech wood forest. Thonet's timber of choice was Beech, coming from the latin name 'Fagus'. Beech was ideal for Thonet's bentwood furniture as it is pliant, less prone to splitting, straight grained and generally free of knots. Thonet now had an abundant supply of beech, a local workforce, the production facility with tools and machines made and refined by himself, several patents and the knowledge and drive to begin producing on an industrial scale. It is no surprise that his most iconic chair came from this period. Figure 7 shows a picture of the iconic Chair No.14. Chair no. 14 is made of six pieces of beechwood, ten screws and two nuts ("Thonet Chair No. 14", 2022). It was



Figure 7 Model no.14. Image obtained from Architectural Digest.

designed to be transported in easy to assemble parts which would save space during transit. The method of production was truly pioneering and developed through years of research.



Figure 8 The Bistro Chair.

Beech wood or rods were placed in a pressure vessel and steam was applied, at which point the wood became pliable and was bent by clamps and straps to the desired form. The same production techniques are still used by Thonet today. Figure 8 is my interpretation of this iconic chair. I like how the minimal amount of material is used to create elegance and the space which allows light to pass through and around the chair. This chair broke the mould, not only in terms of furniture style by shifting away from the Victorian style of intricate carvings, heavy woods and fine fabrics but also the

fact that Victorian furniture had been produced in workshops by master-craftsmen up to this time, Thonet rejected this and started factory production on an industrial scale which was a defining moment in the history of furniture design. The chair can be seen in coffee shops and homes all over the globe today and has even appeared in classic movies such as Cabaret, La La Land, Poltergeist and the Irish movie: Once ("Thonet Chairs in Movies", 2022).



Figure 9 'Once' Scene with Thonet Chair no.14. Image obtained from Eugraph.

### 1867: The Demonstration Chair.

By the time Michael Thonet died in 1871, he had clearly established a hugely successful furniture company which continued to thrive after his passing. By the early 1900's the company had achieved great success and a look at their 1904 catalogue: 'Thonet Bentwood & Other Furniture - The 1904 Illustrated Catalogue' (Thonet, 1980), shows 'its largest catalogue to date..with 113 pages of furniture, some 1270 items' including numerous and various styles of

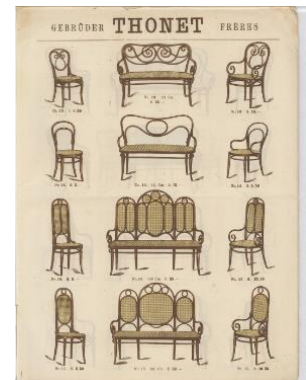


Figure 10 Thonet Catalogue. Image obtained from Boppard Museum.

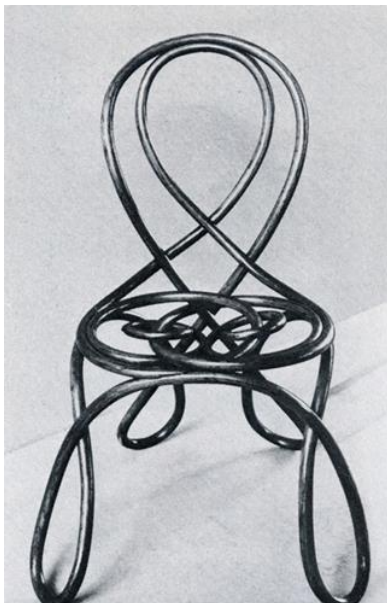


Figure 11 Demonstration Chair. Image obtained from Pinterest.

bentwood chairs, desks, bookcases, mirrors, walking canes, tables, screens, stools and wash-stands. However, it is their chairs which will forever be associated with the company and the name Thonet. Figure 10 is a chair attributed to Michael Thonet's son: August Thonet. It is a remarkable piece dating from 1867 and represents the culmination of all their work developing bentwood furniture. It was meant to give the impression that it was made of one piece, but it is in fact made from two long pieces of bentwood – a remarkable achievement in itself. The company used this chair to promote the company at exhibitions and to demonstrate and

show the possibilities of their wood bending techniques. Figure 11 is a sketch of flowing curves to represent the spirit of the chair. I like how there is a continuous flow to the chair, it's difficult to see where the chair begins and ends.

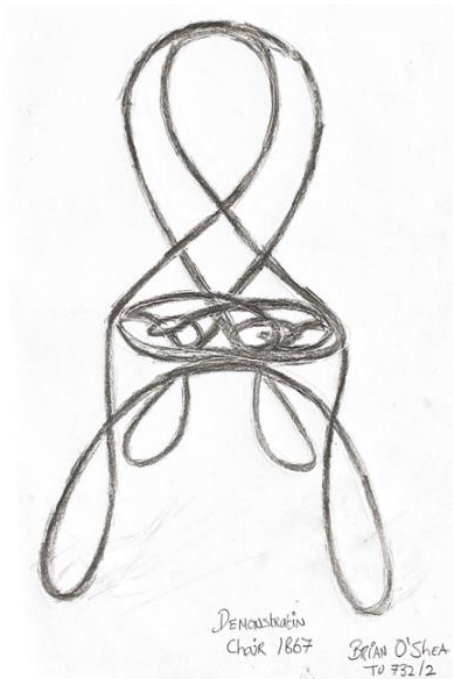


Figure 12 Flowing Curves of Demonstration Chair.

### **Opinion & Summary.**

I have nothing but admiration for the work of Michael Thonet. He was a true pioneer and rather than being influenced by other furniture makers and designers of his time, he created a completely new style of furniture and technique of working with wood which has made a huge impression on the world of furniture. No one before him had perfected a way to bend wood in such a perfect way. What appeals to me is how he managed to 'manipulate' and bend wood and create such elegant, light and beautiful furniture pieces. Every time I see one of his furniture pieces I am amazed by its simple elegance, design, sturdiness and beauty. What a contrast this must have been at the time to the heavy furniture of the Victorian era. Thonet completely shifted away from and rejected the 'heavy' and ornate furniture of the period and produced furniture which was simple, yet elegant, attractive, lightweight and affordable. It's even more impressive when we consider that he had to design tools, moulds, parts and machines to produce his bentwood furniture. During the research for this report, I read about the struggles Thonet had along the way. He faced financial difficulties in Boppard, struggled to initially get patents for his furniture techniques, had difficulties getting 'accepted' in Vienna and with the 'Guild' there. Yet, he never gave up and his perseverance led to worldwide success.

Thonet's chair no. 14 is one of the most recognisable and iconic pieces of furniture in the world today. Its significance and impact on the world of furniture design and production cannot be over-stated. One man's vision and drive to completely revolutionise how furniture was produced, designed, transported, assembled, used and appreciated has truly made its mark. Iconic, stylish, revolutionary and innovative, the forerunner to the modern furniture makers and flat-pack producers, chair no. 14 set new standards, broke through the barriers and is still going strong today. The design and production methods were ground-breaking, the first chair to be shipped in parts with simple assembly instructions to save transport space. It was relatively cheap to produce and sold at a reasonable price. Its appeal was huge, and it inspired and continues to inspire designers and furniture producers today. Chair no. 14's style has been copied, re-produced and is still manufactured by Thonet today.

When I look ahead to my Capstone project in Year 3, I will take inspiration from Thonet's drive and 'never give up' attitude. I learned from researching him that anything is possible with wood, just look at the demonstration chair of 1867. I think how he dealt with setbacks is admirable and an inspiration to all in the furniture making world. While I respect and admire Thonet's work greatly, I personally prefer more modern furniture styles, along the line of geometric Scandinavian furniture such as pre 1950 sideboards, dressing tables, coffee tables, console tables, desks and the like and would like to build one of these pieces for my Cap Stone project. While I was researching this report, I was also interested to know why Thonet had used Beech for his furniture. It became clear that as well as his proximity to a supply of beech wood, it was also ideal for his bentwood furniture techniques due to its qualities and as a structural timber in general for furniture making. I would be tempted to use beech in my capstone, judging by some of the antique examples of original Thonet furniture I saw online which are in excellent condition structurally today, it is an excellent timber for furniture making. One aspect of his style which I would like to incorporate, in spirit at least, is Thonet's ability to create 'light' furniture. I mean 'light' in appearance, not in structure. His ability to do this is impressive and I would love to emulate that as I am not a fan of the 'heavy' furniture styles. I have enjoyed researching Thonet and his furniture and although I don't think I will be using any bentwood pieces in my Cap Stone, I will draw inspiration in other ways from his furniture and story.

**List of Figures.**

Figure 1: Boppard Chair. Museum, V. (2022). Chair | Mündnich, Peter | Thonet, Michael | V&A Explore The Collections. Retrieved 1 April 2022, from <https://collections.vam.ac.uk/item/O59199/chair-thonet-michael/>

Figure 2: Bentwood Leg Detail. Sketch by author.

Figure 3: Liechtenstein Chair. LIECHTENSTEIN. The Princely Collections, V. (2022). Search. Retrieved 1 April 2022, from [https://www.liechtensteincollections.at/en/search2?prod\\_index\\_en%5Bquery%5D=Thonet](https://www.liechtensteincollections.at/en/search2?prod_index_en%5Bquery%5D=Thonet)

Figure 4: Back Frame Symmetry & Detail. Sketch by author.

Figure 5: Café Daum Chair. Antique No. 4 Café Daum Chair by Michael Thonet for Thonet. (2022). Retrieved 1 April 2022, from <https://www.pamono.eu/antique-no-4-cafe-daum-chair-by-michael-thonet-for-thonet>

Figure 6: Mirror Image Bentwood Scrolls. Sketch by author.

Figure 7: Chair no.14. Nast, C. (2022). Thonet and Its Bestselling No. 14 Chair Get a Major Retrospective. Retrieved 2 April 2022, from <https://www.architecturaldigest.com/story/thonet-and-its-bestselling-no-14-chair-get-a-major-retrospective>

Figure 8: The Bistro Chair. Sketch by author.

Figure 9: 'Once' Scene with Thonet Chair no.14. Thonet Chairs in Movies. (2022). Retrieved 5 April 2022, from <https://eugraph.com/thonetchairs/date.html>

Figure 10: Thonet Catalogue. Thonet – Variety of Products – Museum Boppard. (2022). Retrieved 7 April 2022, from <https://museum-boppard.de/explore/thonet-varietyofproducts/#Katalog-Seite-03>

Figure 11: Demonstration Chair. August Thonet of Gebruder Thonet bent wood chair, 1870 | Wood chair, Bent wood, Art chair. (2022). Retrieved 6 April 2022, from <https://www.pinterest.ie/pin/319826011012363772/>

Figure 12: Flowing Curves Demonstration Chair. Sketch by author.

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