# Changes in French Women's Fashions and Patterns at the Beginning of the 20th Century

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Abstract: Women's fashions in France at the early 20th century were changing from emphasizing the curved silhouette of the body bound in a corset to the straight lines of the body freed from the corset. As factors for these changes, much research has been performed from the perspective of the history of costume. But there exists very few researches from the perspective of clothing construction science of such things as clothing pattern designs, size developments, etc. Thus, in the present research, in order to gain a grasp of the actual situation of such changes in clothing patterns, an investigation was made of documentation consisting of 1,291 patterns in the period of 1900 to 1928; all of these patterns were recorded in *La Mode Pratique*. The selected patterns were inputted into CAD, and qualitative and quantitative analyses were made about temporal changes in cutting lines, including darts and their quantity. Further we quantitative analyzed about temporal changes in grading pitch in waist /bust dimensions and waist/ hip dimensions. As results, we made clear that there was a rapid increase from 1917-1920 in waist ratios /busts and hips. We also gained of the actual practices regarding grading increases and decreases for each size.

Key words: Pattern, French fashion, Design, Cutting, Size

# 1. Introduction

Ladies' fashion in early 20th century France made a change from feminine, curvaceous silhouettes created by binding the body with a corset, to something more active and masculine involving linear silhouettes liberated from the corset. This liberation from the corset was treated as a revolutionary change in the history of western clothing design, and some of the reasons that are given for this phenomenon are the changes in the social position of women and the foreign fashion trends announced by couturiers of that time, and many kinds of research have been performed from the point of view of clothing history. However, hardly any research has been done from a clothing construction perspective, such as the shapes of clothing patterns, size development, the details of silhouettes, etc. Also, research on clothing history has so far mainly focused on haute couture products created by famous couturiers for specific high-class women.

That is why this research aims to analyze the changes in female body shapes and shifts in silhouettes and clothing patterns from a constructional point of view, based on objective data. In order to gain a more accurate understanding of the situation of the citizens at that time, this research focuses on women's magazines with pattern supplements that were widely subscribed to by middle-class women, which is something that most fashion magazines published in France did not deal with so often.

#### 2. Materials

## 2.1 Selection of Materials

The fashion magazine we selected as research material is *La Mode pratique*, a women's fashion magazine with full scale supplements, focusing on middle-class female subscribers and having a higher sense of practicality than most fashion magazines that were published in France at the start of the 20th century. This is a weekly magazine of 52 issues per year, published by Hachette between 1891 and 1938. By selecting this material, one of the most influential home fashion magazines at the time, we can examine and analyze the actual situation of women's clothing, bodies, and sizes among the French middle class, which is something previous studies have not focused on. For this research, we used the period from 1900 - 1920, which stands out for its changes in body and clothing silhouettes.

#### 2.2 Examination of pattern materials

We performed a location survey for materials at the Bibliothèque Forney and the National Library of France in Paris, where we examined the supplement issues of *La Mode pratique* which were available for perusal, and we gathered materials via photography. In order to correct for lens distortions and to realize patterns with the correct measurements, we followed strict guidelines while performing photography by placing the patterns on top of graph paper with lines drawn in a grid-shape at 5cm intervals. After the photography, we used image processing software to fix any distortions.

#### 2.3 Examination of size tables

We extracted size tables and articles related to patterns and orders from the magazines we examined, and we analyzed the developments in clothing sizes, the shifts in bust/waist/hip measurements and the changes in the proportions of the waist in regards to the bust and hip. The size tables we used were published in January 1901 – January 1928.

#### 2.4 Results of the pattern material examination

There were 2 kinds of issues of *La Mode pratique* that contained full-sized supplements: trace-types, where multiple pattern lines are separated with various line types and written on top of each other on the same square

piece of paper, and cut-types, where the patterns have already been cut out so that you can use them instantly.

The number of patterns we gathered and checked from the years 1900 – 1929 reached a total of 1491, 974 of which were trace-type patterns and 517 of which were cut-type patterns. For this research, we performed a detailed analysis on only the trace-type patterns, which were the most numerous and contained explanations on how to create the products.

There still exist 167 issues' worth of trace-type pattern sheet, and Fig.1 shows the distribution of

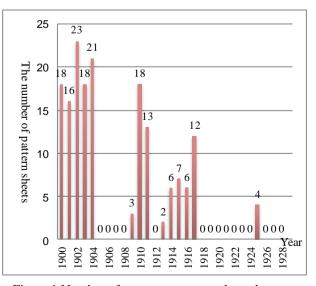


Figure.1 Number of trace-type pattern sheets by year

the publication of all 167 sheets by year. For the years 1900 - 1904, sheets exist for every year, ranging from 1/3 to slightly under 1/2 of the total of 52 issues published each year. However, we did not find any patterns from 1905 to 1908, from 1918 to 1924 and from 1926 to 1929, because they were missing from the libraries. There are not a whole lot of sheets for the 1910s, but some do exist and we managed to collect them.

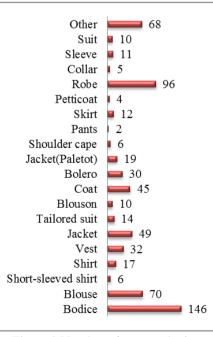
Adults	Adolescents (14-18 years old)	Children (3-13 years old)	Babies (0-2 years old)	Total			
652	34	250	38	974			

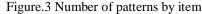
Also, Table 1 shows a breakdown by age of the 974 patterns on the 167 sheets, indicating that there were 652 patterns aimed at adults, 34 aimed at adolescents, 250 aimed at children and 38 aimed at babies. This research only focuses on the patterns for adults.

Next, we aggregated all 652 patterns for adults, largely dividing them into upper garments, lower garments, dresses, partial items and others. As Fig. 2 shows, upper garments constituted a large percentage (68%) of all patterns at 444 pieces. The next largest categories was "dresses" at 15% (96), followed by "other" at 12% (78), lower garments such as pantaloons and skirts at 3% (18) and patterns for parts (collars and sleeves) at 2% (16). We also aggregated the number of patterns divided by detailed item categories, which is shown in Fig. 3. Patterns

for women's vests were particularly numerous at 146 pieces. Next are dresses at 96, blouses at 70, jackets at 49, and coats at 45. When looking at the number and percentage of top-only items (Fig.4), we find the previously mentioned jackets in 3rd place (49). Since jacket patterns offer a direct reflection of popular silhouettes and cuttings, we selected these as items for our pattern analysis.

Out of the 49 jacket patterns, this research was restricted to patterns without any darts on the front, and patterns only that have darts waist that involve darts for chest creases bringing out the waist and the swelling of the chest. For instance, we did not include





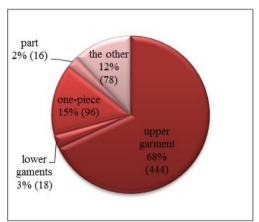


Figure.2 Patterns for adults divided by item

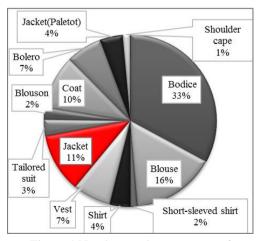


Figure.4 Numbers and percentages of patterns for top items

patterns where the darts for chest creases are scattered outside of the waist area, such as princess lines. As a result, we selected 12 jacket patterns that matched the above criteria, as materials for analysis.

### 3. Observation of the results

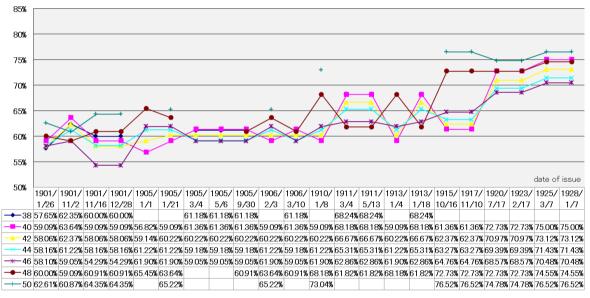
# 3.1 Results of the size table examination

Table 2 shows the sizes and the corresponding bust/waist/hip values for the clothing patterns found in the issues published between January 26th 1901 and January 7th 1928. Only in the November 2nd 1901 issue, the November 16th 1901 issue and the December 28th 1901 issue, the sizes are categorized on 7 levels from 1er taille (size 1) to 7e taille (size 7), but for nigh-on 30 years, all of the other issues from January 26th 1901 to January 7th 1928 use the same size display from size 38 to 52. However, only the January 26th 1901 issue mentioned size 52. The 7 sizes between 38 and 50 have developed as the basic sizes, but depending on the period of publication, sometimes there are 6 or 5 sizes from size 38 and sometimes there are 6 sizes starting at size 40, so there is no consistency. The values change little by little as well. Listed are body-size classifications according to sizes within size charts. For example, in La Mode Illustrée, a French fashion magazine published in the same period, in the size charts printed in the issue of July 21, 1901 (No. 29)-sizes are not classified with numerical values as they are in La Mode Pratique, but rather as four sizes, petite (small), moyenne (normal, or medium), grande (large), and tres grande (extra large); waist, bust, and similar dimensions are shown in centimeters (cm) at 10 sites considered essential in clothing design. Recorded for each of the above sizes are waist dimensions of 50 cm, 55 cm, 60 cm, 72 cm, and bust dimensions of 84 cm, 90 cm, 98 cm, 108 cm. When one uses these as reference for comparisons with the numerical values recorded in size tables of La Mode Pratique for the same period, one surmises that Issue No. 40 shows a normal (medium) standard body size, while in the same way, Issue No. 38 shows a small body size, Issue No. 44 shows a large body size, and Issue No. 50 shows an extra large body size.

no	year		Waist							Hip								Bust								
			38	40	42	44	46	48	50	52	38	40	42	44	46	48	50	52	38	40	42	44	46	48	50	52
4	1901	1901/1/26	49	52	54	57	61	66	72	78	85	88	93	98	105	110	115	120	82	89	90	95	100	105	110	115
44	1901	1901/11/2	53	56	58	60	62	65	70		98	103	105	108	112	115	120		89	94	96	98	102	108	112	
46	1901	1901/11/16	51	52	54	57	57	67	74		87	90	94	95	100	106	112		87	89	92	97	103	103	106	
52	1901	1901/12/28	51	52	54	57	57	67	74		87	90	94	95	100	106	112		87	89	92	97	103	103	106	
1	1905	1905/1/1		50	55	60	65	72				92	98	98	98	116				84	90	96	105	108		
3	1905	1905/1/21		52	56	60	65	70	75			92	98	105	110	116	125			82	86	90	96	102	105	
9	1905	1905/3/4	52	54	56	58	62				90	94	96	102	103				85	88	92	96	100			
18	1905	1905/5/6	52	54	56	58	62				90	94	96	102	103				85	88	92	96	100			
39	1905	1905/9/30	52	54	56	58	62	67			90	94	96	102	103	108			85	88	92	96	100	105		
5	1906	1906/2/3		52	56	60	65	70	75			92	98	105	110	116	125			82	86	90	96	102	105	
10	1906	1906/3/10	52	54	56	58	62	67			90	94	96	102	103	108			85	88	92	96	100	105		
2	1910	1910/1/8		52	56	60	65	75	84			92	98	105	110	116	125			82	86	90	96	105	112	
9	1911	1911/3/4	58	60	62	64	66	68			95	- 99	103	106	110	112			88	93	95	101	105	109		
19	1911	1911/5/13	58	60	62	64	66	68			95	99	103	106	110	112			88	93	95	101	105	109		
1	1913	1913/1/4		52	56	60	65	75				92	98	105	110	116				82	86	- 90	96	105		
3	1913	1913/1/18	58	60	62	64	66	68			95	- 99	103	106	110	112			88	93	95	101	105	109		
42	1915	1915/10/16		54	58	62	68	80	88			90	94	100	106	115	124			82	86	- 90	96	105	115	
45	1917	1917/11/10		54	58	62	68	80	88			90	94	100	106	115	124			82	86	- 90	96	105	115	
29	1920	1920/7/17		64	66	68	72	80	86			94	100	104	112	115	125			86	90	94	- 98	105	112	
7	1923	1923/2/17		64	66	68	72	80	86			94	94	100	112	115	123			86	86	90	98	105	112	
10	1925	1925/3/7		66	68	70	74	82	88			92	98	100	110	113	123			86	90	94	98	105	112	
1	1928	1928/1/7		66	68	70	74	82	88			92	98	100	110	113	123			86	90	94	98	105	112	

Table 2. Changes in bust/waist/hip measurements in the table

Bust and hip values are stable, even while showing minor increases and decreases for every size, but waist values show an upward trend as time advances. The graphs (Figs.5 and 6) that display the change in proportions of waist measurements in regards to the hip and bust also show that the extreme narrowness of the waste gradually decreases as the years go by. Out of the 3 tables, the period that shows an especially sudden increase is the one from 1917 to 1920, in which the values change dramatically, resulting in waist measurements that are almost the same as those of the present. For instance, if you look up size 38 in the November 17th 1917 issue, it will say 54cm, whereas this is 64cm in the July 17th 1920 issue, meaning that the value increased by as much as 10cm. However, only size 48 varies greatly between 1913 and 1915. The size table that shows the practical, standard average measurements that the subscribing middle-class women could use without any problems when making clothes indicates a sudden increase from 54cm to 64cm, which is likely due to the fact that, among



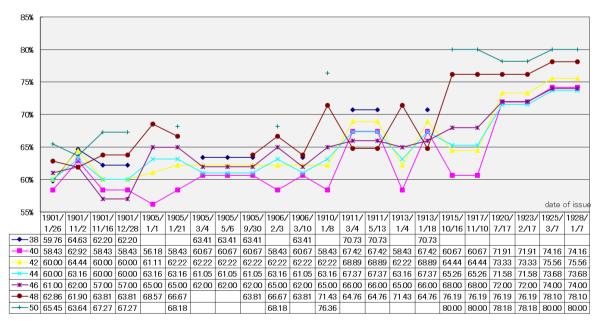


Figure.5 Changes in proportion of waist measurements in regards to the hip

Figure. 6: Changes in proportion of waist measurements in regards to the bust

middle-class women in 1920, the habit of using corsets to control the waist took a sharp decline because women started living with natural waist lines.

## 3.2 Analysis of cutting in jacket patterns

Here, we will examine the characteristics of the cuttings of the patterns in question. Below are the 4 most representative examples of patterns and silhouettes out of the 12 patterns.

Fig. 7 shows that patterns between 1900 and 1904 have 1 large waist dart and that the sides have a fairly deep cutting line towards the waist. Furthermore, in 1909, the body parts of jackets became longer, as is shown in Fig. 8, and although there is one long and slightly large dart, the sides do not display the same extremely deep curve toward the waist that had been popular up to that point, but that they have now been cut into a gentle arch, resulting in a fresh, vertically linear shape. Fig. 9 shows a pattern from the April 2nd 1910 issue, and jacket patterns from that point onward are known for their characteristic cutting that foregoes the darts on the front. This coincided with the emergence of a completely new cutting line around 1910, which is characterized by the apperance of a bodice with continuous sleeves, displaying awareness of the silhouettes of kimonos. Patterns from 1911, similar to those from 1909, show a long dress length, gentle side curves and vertically linear silhouettes. From around 1914, the side lines became gradually straighter, and the cuttings changed into A-lines with expanded hems. Fig. 10 shows that, in 1917, the lines bending inwards toward the waist start to disappear, and that jackets become straighter and hems become gradually wider. This examination has allowed us to confirm that the turning point from curved silhouettes to straight silhouettes lies in 1910.



Figure. 7 March 9 1901 issue "JAQUETTE DE PRINTEMPS"



Figure. 8 December 18th 1909 issue "JAQUETTE NOUVELLE"



Figure. 9 April 2nd 1910 issue "JAQUETTE DEMI-LONGUE"



Figure. 10 June 2nd 1917 issue "JAQUETTE LONGUE"

## 3.3 Results of circumferences and ease in jacket waists

We entered the jacket patterns into CAD and we used PCs to calculate the circumference of the waist of each pattern. The measurement values, the values of the medium size (size 40) of the size table for creating clothes during the same period as Fig. 6, and the ease that is the result of the difference in those values can be seen in Fig.11 below. However, for cases where there was no size table corresponding to the year number of the pattern, we used the values of the size tables from nearby years.

As indicated in Fig.11, the results show that there was an increasing trend in the waist measurements of the patterns, corresponding with the shift in popular silhouettes from the clothes of the early 1900s that focused on extremely thin waists, to the more linear clothes of 1910 and later: for instance, 61.4cm in the January 13th 1900 issue, 89.5cm in the October 15th 1904 issue, 95.7cm in the December 18th 1909 issue, 113.6cm in the

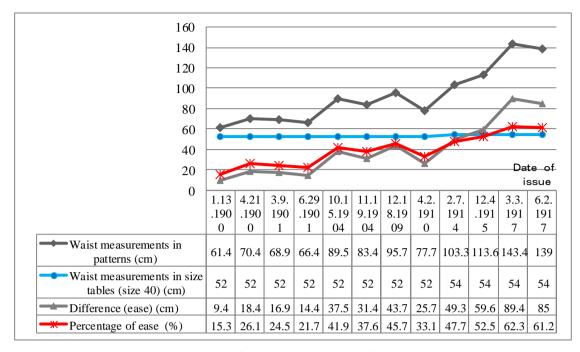


Figure.11 The transition of clothing ease from the point of view of waist measurements in clothing and waist measurements in size tables.

December 4th 1915 issue and 139.0cm in the June 2nd 1917 issue. On the other hand, the waist measurements in the size tables for creating clothes show hardly any change for size 40 from 1900 to 1917, lying between 52 and 54cm. This shows that, in regards to clothing ease, even though there was a new trend of silhouettes with spacious waists that don't show the lines of the body and even though people actually wore popular clothing with such spacious waists, they still kept their waist sizes small underneath the clothing.

#### 4. Summary

In this research, we performed an analysis of the changes in female body shapes and the shifts in clothing patterns and silhouettes during the period when female body shapes changed sharply from the early 1900s to the 1920s, using women's magazines with pattern supplements that were aimed at the middle-class.

The results of the survey of size tables for clothing design showed that there was hardly any change in bust and hip measurements throughout the years. On the other hand, if we look at size 40 in waist measurements, which was the standard size from the early 1900s to 1917, we can see that the measurements were small at 52 - 54cm, but that they increased by 10cm to 64cm in 1920, indicating the fact that people generally stopped using corsets to bind their waist lines.

In the analysis of cuttings in jacket patterns, we saw that, from 1900 to 1904, there were patterns and silhouettes that emphasized the slimness of the waist by using large waist darts and by making the sides go towards the inside of the waist, but in 1910, the sides and silhouettes changed to more linear shapes and waist darts disappeared from the patterns. From the mid-1910s, we see a lot of A-line cuttings that spread towards the hems, resulting in a mainstream of cutting lines that are completely different from the feminine lines that follow the curves of the body, used in the early 1900s, in that they are linear and separate from the body, leaving a lot of space around the waist.

An examination into jacket waist circumferences and the shifts in spaciousness per time period shows that, while waist measurements are stable at 52 to 54cm for about 20 years after 1900, spaciousness in patterns around the waist keeps increasing as time passes.

The relationship between the shifts in waist sizes of these size tables and the spaciousness of waists in these types of clothing indicates that, even after clothing with spacious waists had become mainstream, people still kept correcting their waist lines with corsets and such. This overthrows previous research that was reported with the assumption that clothing silhouettes and body shapes were the same. This research has shown that there was a gap of several years between the period when clothing first changed from curved silhouettes to straight ones, and the period of releasing the body from corsets.

This research was performed using base research (S) 24220012 "Technical and managerial research of design plans for textiles and outfits aimed at the international market" and the joint research of fashion and clothing culture by "Projects Granted to Junior Researchers" of the BUNKA Fashion Research Institute "French fashion movements in the early 20th century – Exoticism, body & patterns, ornaments –".

# 5. References and Citations

[1] Librairie Hachette, (1900-1925) , "La Mode Pratique", Patrons à reproduire,