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# FASHION IN THE EARLY XXth CENTURY - ANALYSIS OF FASHION AND FASHION TENDENCIES DURING THE FIRST AND SECOND DECADE OF THE XXTH CENTURY

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**Stručni rad**

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**Abstract:** *The first two decades of the XXth century are no less revolutionary compared with the previous XIXth century. The two world wars play the role of a peculiar catalyst of a society in which fashion and fashion seasons are changing very quickly, although certain tendencies can also be sustained for longer cycles of influence (5-10 years). In the new century, the old nineteenth-century style remains, with crinoline and bustles disappearing, and the new cuties that replace the craftsmen who were born in the middle of the XIXth century, take on quite different paths of development. The personal pursuits and achievements of fashion designers turn into an ideal, which is also a radical change of the fashion paradigm that dominated throughout the post-war period and continued even after the Millennium. The new social relations lead to the massive action of sport and sportswear, whose creation and marketing become a new branch of the fashion industry. Resolving the dilemma of the appearance, the abandonment of artificial support structures for the garment, redefine the role and function of the ladies' dress, which naturally, for ease of wearing, begins to shorten and become lighter. A rational trend affect everything from the number and types of ladies' garments (shirts, skirts and dresses) to all accessories in the suit, first of all the hats. In the analysis of the second decade of the twentieth century, only the period from 1909 to 1914 is taken into consideration, because the years of military action (1914-1918) are practically excluded. Here we can talk about the influences of European fashion upon the development of everyday fashion in America. This is mainly related with the reasons of overcoming American political isolation and the new tendency of absorbing the European fashion, whose is adopted by the prewar European emigration in the United States.*

**Keywords:** The first two decades of XXth century, fashion, tendencies, paradigm, industry, garment, accessories.

## MODA U RANOM DVADESETOM VEKU - ANALIZA MODE I MODNIH TENDENCIJA TOKOM PRVE I DRUGE DEKADE DVADESETOG VEKA

**Apstrakt:** *Prve dve decenije dvadesetog veka nisu ni manje revolucionarne u odnosu na prethodni devetnaesti vek. Dva svetska rata igraju ulogu svojevrsnu katalizatora društva u kojem se moda i modne sezone brzo menjaju vrlo brzo, iako određeni trendovi mogu održati i za duže cikluse uticaja (5-10 godina). U novom veku stoji stil stara devetnaestog veka, sa nestankom krinolina i stolica, a novi kutiurieta koji zamenjuju majstore rođene sredinom devetnaesetog veka, preuzimaju sasvim različite puteve razvoja. Lični ciljevi i dostignuća modnih dizajnera pretvaraju se u ideal, koji je takođe radikalna promena modne paradigme koja je dominirala tokom posleratnog perio-*

da i nastavila se i nakon Milenijuma. Novi društveni odnosi dovesti do masovnoj akciji sporta i sportska odeća, čije kreiranje i marketing postaju nova grana modne industrije. Rešavanjem dileme izgleda, napuštanjem veštačkih nosačkih struktura za odeću, redefinisati ulogu i funkciju ženske haljine, koja naravno, rad jednostavnosti nošenja, počinje da se skрати i postaje lakša. Racionalni trend utiče na sve, od broja i vrsta ženske odeće (košulje, suknje i haljine) do svega dodatka u odelu, pre svega šeširima. U analizi druge decenije dvadesetog veka uzima se u obzir samo period od 1909 do 1914 godine, jer su godine vojne akcije (1914-1918) praktično isključene. Ovde možemo govoriti o uticajima evropske mode na razvoj svakodnevne mode u Americi. Ovo se uglavnom odnosi na razloge prevazilaženja američke političke izolacije i nove tendencije apsorbovanja evropske mode, koja je usvojena od predratne evropske emigracije u Sjedinjenim Državama.

**Ključne reči:** Prve dve decenije dvadesetog veka, moda, trendovi, paradigma, industrija, odeća, modni detalji.

## 1. ANALYSIS OF FASHION AND FASHION TENDENCIES DURING THE FIRST DECADE OF THE XXTH CENTURY

The nineteenth century is considered to be a „long” century – in order to complete itself, it takes another decade of the next one. The reasons for this are various, but at the end of the XIX<sup>th</sup> century humanity already lives with the consciousness that it has mastered the electrical energy and the telegraph and the phone have turned from fact into factor that strongly influences the business life. Man is on the way of controlling the airspace and getting global picture of the world.

The most characteristic thing in the XX<sup>th</sup> century is that the wars and revolutions did not cease. The second feature is that both First World War and Second

World War, as well as the revolution in Royal Russia, have the same immense importance for the whole social life, including fashion, as the Great French Bourgeois Revolution – these events raise the barrier of fundamental changes in people’s perception of fashion and hence of cloth production that transforms fashion ideas into spectacular images.

In the period before First World War, fashion is been divided into several periods – it all begins with the null years, when Charles Frederick Worth’s fashion revolution is still been in the heat with one distinctive change – the cancellation of crinoline and its replacement with bustle (Figure 1). Gradually, bustle also drops out of fashion until the First World War and the October Revolution in Russia (Figure 2). This is the period between the two world wars. After this peri-

od, fashion is accepted to be analyzed for decades or by the history of the most influential and productive fashion houses, as well as the emblematic works of designers who shape the creative profiles of different fashion houses. The technique is been developed very intensively, with the cinema being the most important for the fashion of the 20s, 30s and 40s. In the 1950s and beyond, television is the most influential on the development of fashion after cinema, immediately followed by specialized magazines, fashion magazines [1], catalogues [2] and almanacs.

The greatest merit of the XX<sup>th</sup> century is the quest



**Figure 1.** Charles-Frederick Worth, Court Presentation Ensemble with bustle, ca. 1888

Internet source: <https://theredlist.com/wiki-2-23-1249-1250-view-before-1900-profile-charles-frederick-worth-4.html>

Date of visit: 23.06.2018



**Figure 2.** Charles-Frederick Worth, Evening Dress without bustle, 1889-1900, The Metropolitan Museum of Art, New York

Internet source: [https://www.metmuseum.org/toah/hd/wrth/hd\\_wrth.htm](https://www.metmuseum.org/toah/hd/wrth/hd_wrth.htm)

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for fashion to cease to be privilege of a rather small and too few specific group of people, but to face absolutely all the layers of consumers. In addition, the fashion industry starts producing a complete set of goods – clothing, shoes, accessories, make-up and cosmetics. It can be said that the entire XX<sup>th</sup> century is a new stage in the searches, experiments and general development of European costume with higher expression of distinct separation of male and female costume from youth and children's clothing.

During the period from 1900 to 1910, the influences of the previous century are been revived. The image of the male costume is formed by two main factors in man's life – his work and his sporting activities. The time during the second half of the day when people are been displayed in public places is no longer with such a rigid and strict regulation commended by the higher society – gradually the afternoon men's suit is been shifted by the sports cloths (Figure 3) This tendency increases as



**Figure 3.** Around 1900, tweed and plaid prints were symbolic with sportswear for the upper classes. Here both suits and knickers were options for hiking and gardening.

Internet source: <https://www.pinterest.ie/pin/74309462580714660/>  
Date of visit: 23.06.2018

more men sit on a bicycle and the richer ones even on motorcycles, which leads to the search for appropriate and much comfortable clothing.

The natural result of this is initial transfer of individual elements from the sportswear into the civilian one, then rethinking the fashion line and rendering it not only by the help of „strange hybrid garments“ but also as a whole vision. This shift, of course, does not happen instantly or for a moment, like a magic stick, but is a process of combat and collisions, mostly related to people's understanding of what fashion line in a man's suit means. As a counterbalance to the „voluminous“ sports supplements to the civilian costume during the period 1910-1913, the tall, tightly stiff collar of men's shirt with small, bent edges becomes fashionable again. This type of collar – an inconvenient and painful element, especially for people with thicker necks, gets the name, which in free translation from German is „Vater Mord“ (Figure 4). The peculiarity is the cut of the costume. It generally becomes much more free and convenient. The men's jacket displaces definitively the surtout and the soft felt hat – the hard cylinder, which already seems ridiculous and pretentious if worn constantly. The second change is that in the afternoon party – the tuxedo replaces the frock coat.

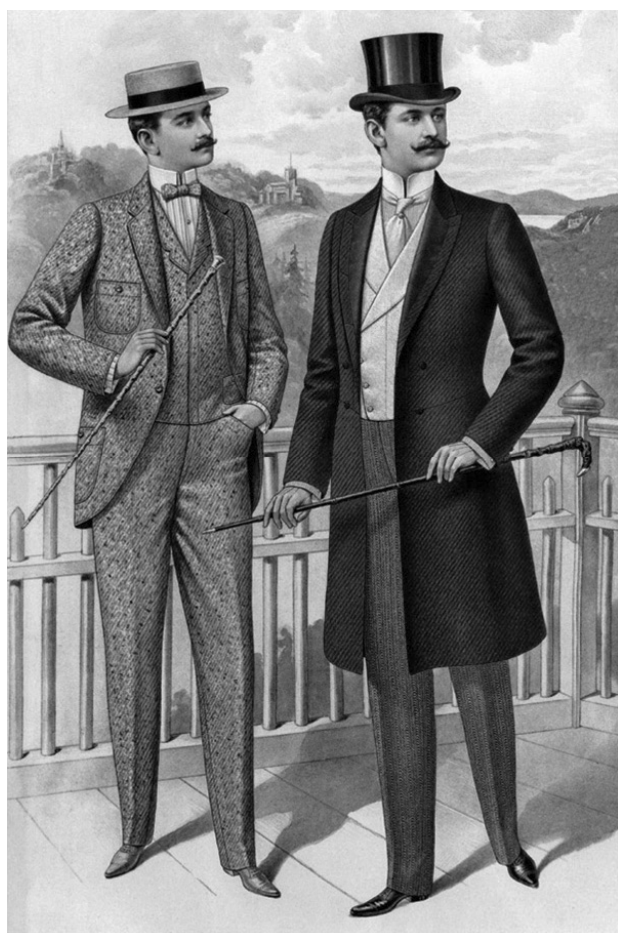
This freedom in width and crinkle also affects the accessories in men's wardrobe – men start buy-



**Figure 4.** „Father Murder“ collar

Internet source: <https://www.pinterest.com/pin/315674255104187919/>  
Date of visit: 23.06.2018

ing ready-made, worked out ties, shoes and socks [3]. Fashion writers also note the fact that during the spring-summer season [4] in 1909, man fashion is massively staking on brown men shoes. At first glance it can be assumed that mass unification, which blurs the social frontiers, is already in effect, but in fact the unification of men's suit during this period only begins and is not so radical. Throughout the period of existence, the superstar bourgeoisie and its most representative part of the dandelion of London compete in order to invent various „betterments” in men's suit so as to preserve the secret of male elegance [5] only and only to „protect secular people from unforeseen mistakes” [6] (Figure 5). From the general appearance



**Figure 5.** Men's fashion at the beginning of the XX<sup>th</sup> century

Internet source: <https://www.historicalemporium.com/mens-edwardian-clothing.php>  
Date of visit: 23.06.2018

of the costume class differentiation is carried in detail – the rich man is aware of the fact that he carries a fine gold needle for a tie with inlaid gems, the most preferred being brilliant and ruby, and, more rarely, garnet or chrysoptase; gold watches of solid gold chains

placed bilaterally to silk vest with special pockets, as well as massive gold rings with monograms and family coats of arms – all this is the material expression of a society that understands how destructive demonstrated social boundaries can be. During this period, women's fashion continues to be a top priority of the French fashion industry.

Dimitrova-Popska connects the development of fashion at that time with „...all the directions of the fine arts and architecture; the most important cultural achievements, the custom, the habits and the psychology of the modern man” and it also notes the following specific features – „Fashion in the period 1900-1907 is characterized by the splendor of the decor. Many feathers, fluff, and luxurious expensive fabrics are used” [7] (Figure 6). The most important tendency is preserving the appearance of the last findings in this area made at the end of the XIX<sup>th</sup> century, but no longer



**Figure 6.** August 1904 walking dress (left) and a promenade ensemble (right) illustrated in De Gracieuse magazine; Internet source: <http://www.geheugenvannederland.nl/nl/geheugen/view?coll=ngvn&identifier=GMDH01%3A200011458>

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with the exaggeration of the emphasis on the skirt volumes in the back. The period, which receives the name „modern” and which is not only famous for its achievements in architecture but also for the design of fashionable ladies’ garments, supported by the decadence literature, is inspired by the image of the „Infernal” woman. Fashion houses in Paris also play a major role in artificially created image to be embedded in the minds of their individual consumers, who come from the big industrial and banker bourgeoisie from Europe and even from America.

It is well known the practice of that period that many American families during summer time travel to Europe and necessarily pass by to visit Paris in order to make special individual orders so they can fill their wardrobes with fashionable European clothes. This even is pointed as one of the reasons why Worth’s fashionable clothing is located and is much more preserved in America than in Europe.

This puts a new stage of the rivalry between Parisian fashion lavishness and London’s rational pragmatism, second one beginning to find more and more supporters. Because of the beginning of the century, it is a matter of subsistence, the principle of implication is again the principle of refusal of the old. In 1902 the upper bouffant (the so-called „Chinese flashlight”) disappears from the sleeve of ladies’ dress. In 1904-1905, the sleeves are sewn with an additional triangular plate from the elbow to the wrist and therefore the sleeve gained a „funnel” look. At the same time, the waist line descends downwards, emphasizing with a „hoop” (sliced truncated piece with a sophisticated cut that looks like a stretched pentagon) that emphasizes decoratively the optical position of the waist. In summer, women again wear bright dresses and blouses decorated with smooth strips, decorative stitches, finely tucked pleats of varying widths as well as applications on the collar and the ends of the sleeves with lace.

The evening dresses and the topcoats are been designed to fall from the shoulders down into wide and free forms. An obligatory accessory for both daily and evening costumes is the hat with various curved and raised edges and decorations with artificial flowers, tapes, feathers and lace veils.

The example of the actress Lilly Elsie, who in 1907 appeared on London’s operetta „The Merry Widow” is contagious. Her high waist dresses sewn from chiffon and krepdechin (crepe de chine), as well as her hat with feathers with an extremely wide periphery created by Lucille [8], also called the „Cheerful Widow” (Figure 7), is immense on both sides of the English Channel, and



**Figure 7.** Lily Elsie in „The Merry Widow” hat, dressed by Lucile (1907)

Internet source: <http://www.gogmsite.net/the-belle-epoque-1890-1914/subalbum-lucy-duff-gordon-l/albumette-celebrities-wear/ca-1907-lily-elsie-in-the-m.html>

the designer shares the following: ...*The triumph of The Merry Widow was also a personal triumph for me, for of all the plays I dressed, and there were many, it was my favorite. ‘The Merry Widow Hat, which I designed for Lily Elsie brought in a fashion which carried the name of „Lucile” its creator, all over Europe and the States. Every woman who wanted to be in the swim, had to have a „Merry Widow Hat”, and we made thousands of pounds through the craze, which lasted longer than most fashion crazes, for the charm of the play kept it alive...*

The image she creates is so successful that stays in fashion for several years. During this period, Lucille became the actress’s personal designer, and on this occasion she writes the following: „...From that day I designed all her clothes both for the stage and in private life and some of my most successful models were created for her, for once she had „found herself” she wore them so charmingly that every woman who saw them wanted to have them copied...” [9].

The hat is usually made of straw and has deep bottom „wrapped in black tulle and ostrich feathers” [10]. The female hat, which replaces the „cheerful widow hat” type during the 1910-1915 periods, is called „beehive hat” – is a tall dome that stretches forward to the forehead where the material from which it is made folds upward to form a periphery. Generally an ongoing and maintained to the present day tendency of high fashion is that the ladies costume must be completed with a hat. Some designer’s discoveries and inventions in women’s hats have been forgotten as soon as the fashion show ends, and others, although not rewarded with special attention, have remained relatively long.

## 2. ANALYSIS OF FASHION AND FASHION TENDENCIES DURING THE SECOND DECADE OF THE XX<sup>TH</sup> CENTURY

It can be said that for the shaping of fashion lines until the beginning of the First World War and for the period between the two world wars, a whole and complete ensemble is still being set up to build the appearance of women – the clothes and the hat, and sometimes even the shoes are often work of the same designer and are the embodiment of his ideas for a single ensemble in ladies fashion.

Due to the fact that both the volume and the length gradually decrease, the question of the use of the materials in the manufacture of clothes arises. Already all, both modelers and traders, and the broader layers of consumers understand that the times in which Worth uses a hundred yards of fabric for a single dress are irrevocably gone. It is decided to have two gowns of fashionable apparel annually, and the members of the High Fashion Chamber to increase almost twice. The third main reason for the influence of fashion on all sections of society is that the idea of ready-made clothing is already clearly seen. Overall, Worth’s management scheme has been successfully transformed and applies to the fashion offered to the vast mass of buyers who have no opportunity (and should not) be dressed in the rules and costumes of high fashion. High Fashion, for its part, becomes an ideal, accessible to a few, but it defines the main tendencies in fashion for men’s and women’s

clothing and thus suggests the path of development for all other areas.

As in both the first and the second decade of the twentieth century, sport remains a major factor that continues to influence the fashion line of the men’s suit. Here again are the so-called „expensive sports”. Initially, these are cycling and motorcycling, but they are soon being massified. During this period the rich elite rediscover the winter sports – the skis – which leads to imposing of some elements of the tourist and ski suit into men’s fashion. This leads to massive spreading of golf pants, which are been combined with thick woolen socks, woven with a variety of geometric patterns and with corresponding shoes (Figure 8). Men’s shoes are mostly halves with different soles – thin in the summer and reinforced in the winter. The length of the coat is reduced slightly to reach the middle of the calf, but the cut retains its previous free falling volumes (Figure 9). There are different



**Figure 8.** Male golf pants popular during the Eduardian era and during the second decade of the XX<sup>th</sup> c.; Internet source: <https://www.pinterest.com/pin/455004368592794240/?lp=true>  
Date of visit: 23.06.2018



**Figure 9.** Male coat during the 1910s  
Internet source: <https://www.pinterest.com/pin/311100286736778286/?lp=true>  
Date of visit: 23.06.2018

buttons and pockets on the surface of the costume, whose decorative function is becoming more clearly understood by the masters of male fashion clothing.

From the analysis of the preserved samples, as well as from the texts and images that we have at that time, we can see that the principle that the fashion line reflects the ideal of beauty in society continues to be observed. During this period, the general appearance of the line, as expressed by Mertsalova is: „... a

*slightly curved shape of a stem crowned with a luscious flower. This similarity is further accentuated by the enormous size of women's hats, decorated on the periphery with flowers or feathers"* [11] (Figure 10a and Figure 10b).

1910



**Figure 10a.** Clearly emphasized shape of the female silhouette during the beginning of the second decade of the XX<sup>th</sup> century: a slightly curved shape of a stem with huge hats decorated on the periphery with flowers and feathers; Internet source: [http://www.fashion-era.com/C20th\\_costume\\_history/black\\_silhouettes\\_1900.htm](http://www.fashion-era.com/C20th_costume_history/black_silhouettes_1900.htm) Date of visit: 23.06.2018

**Figure 10b.** 1910 Madame Winterfeld (location and artist could not be found); Internet source: <https://lamodeillustrree.livejournal.com/112821.html> Date of visit: 23.06.2018

The color gamut remains so refined, but it becomes complicated by the two-color or tri-color combination of weft and the fabric base, which suggests that the weaving industry is emerging in a new range of technological possibilities. During this period, modellers boldly combine the blue-green with the light yellow-orange, the golden-yellow with the dark blue, the pearl-gray with the red-pink. Merry and bright colors are preferable to blacks and browns. From the old masters retains the inherited ability to combine different fabrics and their invoices – barge with atlas, velvet with chiffon or gas are preferred combinations. Heavy-dropping contextures are been used, combined with airy and transparent veils or gauzy light colored silk fabrics.

Tailors of the new generations who work during this period, have not yet given up entirely of embroidery. Preferable is the one that is made with colored smooth threads among the others. Gold-plated and

silver brilliant embroidery were used during this period as well as the period before for decoration of the parade military uniforms of senior command staff. If it is necessary to use gold-embroidery in ladies suit, it is usually performed in dark, patinated colors – „old gold“, which must be combined with glass beads or artificial „precious stones“, the color of which is chosen mostly on the principle of contrast with the base fabric of a lady's suit.

As a result of the search for new forms in ladies' dress, during this period appeared and gave up separately sewed to the bodice sleeves of her dress. This model disappears initially in the long evening ladies dresses – they are sewn or without any kind of sleeve at all, with a huge open back or, if they are with a sleeve – it represents one whole with the dress.

During this period, the English custom for afternoon tea parties – „five o'clock“ is transported to France. This transfer of habits leads to a transfer in the area of clothing. This afternoon chat is very popular with special dresses, called again in English „tea gown“ (Figure 11a and Figure 11b). They are sewn from soft, fine woolen or silk fabrics with gentle and light combinations – turquoise-green with silver-blue, pearl-gray with silver-blue, and garnished with small bouquets of artificial flowers (mostly forest violets or moon tears).



**Figure 11a.** Tea Gown 1910s, The Metropolitan Museum of Art; Internet source: <http://amortentiafashion.tumblr.com/post/100112574359/tea-gown-1910s-the-metropolitan-museum-of-art> Date of visit: 23.06.2018

**Figure 11b.** Tea gown 1910-1912; Internet source: <https://lamodeillustrree.livejournal.com/112821.html> Date of visit: 23.06.2018



**Figure 12a,b,c.** Pleated dresses from the 2<sup>nd</sup> decade of XX<sup>th</sup> century  
 Internet source: <https://www.pinterest.com/pin/166070304994065322/>  
 Date of visit: 23.06.2018

In 1913-14 experiments with various folds and pleats start new beginning in women's costume. There are dresses that are smooth to the waist, from the waist to the knee are with a knit-like, pleat-like crease, and from the knee to the ankle have a fine pleat, whose width is twice as narrow as the upper pleats (Figure 12a and Figure 12b).

These are the first attempts to divide the suit optically into three parts, but these are only bold single attempts. Basically the figure and the dress are „dual-chamber” – from the neckline to the high waist is the first part, and from the waist to the heel the dress is all whole again without visual interruptions – and this is the second part. If for the tea party dresses and evening gowns the experiment with colors, combinations of lengths and shapes is desired and the complicated and spectacular silhouette deliberately sought, the question of silhouette and the shaping of everyday dresses then (and throughout the whole XX<sup>th</sup> century) is not so easy. On the one hand the ladies' garment should be effective, express the ideal, be something to enjoy and attract the eye, and on the other hand it must be rational, not to interfere with the active movement on the streets and in the vehicles.

Encouraged to meet similar, largely controversial demands, the ladies' dress evolves on the path of gradual rationalization of the silhouette, but with care to keep the fashion line. The controversy, however, is not so easy to overcome - evidence of this is the appearance of the ladies' dress, called „Reform” (Figure 13a,b,c). This dress, despite its straight lines, both in the cut and in the vertical decorative stitches and other elements, is still worn with a corset, which makes the very idea of a general reform of the ladies' suit worthless. During the

second decade of the XX<sup>th</sup> century this kind of dresses will be the „swan song” of the corset in the field of women's fashionable suit.



**Figure 13a. (Left)** German „new artistic reform dress”, design by Elizabeth Winterwerber, 1903;  
 Internet source: <https://www.pinterest.com/pin/409123947378576126/?lp=true>  
 Date of visit: 23.06.2018

The tendency to release the female body from stiff forms began in the second half of the 19<sup>th</sup> century, but received a particularly large number of supporters especially during the second decade of the 20<sup>th</sup> century

**Figure 13b. (Right)** The Reform Dress. 1909  
 Internet source:  
[http://opac.bbf.dipf.de/cgi-opac/bil.pl?t\\_direct=x&fullsize=yes&bm=yes&f\\_IDN=b0083120hild](http://opac.bbf.dipf.de/cgi-opac/bil.pl?t_direct=x&fullsize=yes&bm=yes&f_IDN=b0083120hild)  
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### 3. CONCLUSION

During the first decade of XX<sup>th</sup> century fashion is already unfolding and „operating” with everything from architecture to technology and from technology to leisure. A similar tendency, which began shortly before the First World War, emerged very clearly after its completion. People understand that life has depreciated and that generations who have participated in the war are becoming lost generations even for fashion.

By comparing the costume lines in the first two decades of the century, we can say that the lines in the second decade are noticeably different from those in the first. The strange curves are now finally lost, the outline of the figure marks trends in expansion and alignment, and in 1914 the silhouette of the ladies' suit take the form of highly drawn vertical rhomboid.

The ideal begins to shift to lines that appear in the tune. The ratio between the waist down part (the skirt of the tunic) and the corsage, which now acquires a trapezoidal shape with a broad lower base, and a tight skirt with rhythmically repeating elements of surface decoration, give the suit a new, unprecedented piquancy and attractiveness.

### 4. REFERENCES:

- [1] As one of the cult magazines, which is decisive for the fashion discourse in the periodic press at that time, we can point to the journal „*Le Miró de Mod*” („*Mirror of Fashion*”, published in 1897) which was monthly published by Buturic Publishing Company until 1937.
- [2] The work of artist Georges Leppas (1887-1971) contributes a lot to this type of print. He was born in Paris and there he received his artistic education. He is best known for his achievements as an illustrator. „*In 1909, he joined Paul Poiret, and two years later he illustrated his famous „Le Poison de Paul Poiret” catalog. In 1912 he moved to Jean Patu to illustrate his collections*” – quote by O`Хара, Дж., Энциклопедия на модата, Библиотека 48, София, 1995, p. 126.
- Numerous illustrations from this artist can be found on the electronic resource *Georges Lepape*, access date: 19.01.2018
- [http://www.liveinternet.ru/community/pour\\_l\\_amour\\_de\\_l\\_art/post109219724/](http://www.liveinternet.ru/community/pour_l_amour_de_l_art/post109219724/)
- More information about the artist can be found in the book: Defert, Thierry et Lepape, Claude, *Georges Lepape ou l'Élégance illustrée*, éditions Herscher, Paris, 1983.
- [3] Due to the shortening of the length of the dress, the active role of shoes and socks is becoming more and more recognizable, becoming an increasingly visible part of clothing and an essential part of the image.

This is felt and expressed first by Lucien Lelón (1891-1958), who is one of the first fashioners to take on the task of „*bringing more variety to underwear and long socks*” – quote by O`Хара, Дж., Энциклопедия на модата, Библиотека 48, София, 1995, p. 125.

- [4] The spring and summer season for Western Europe is from 1<sup>st</sup> April to 1<sup>st</sup> September. The months of September, October, November, December, January, February and March are scheduled for the autumn-winter fashion season.
- [5] For more details, see: Julius, Paul, *Was Ziehe ich an?*, Wedekind, Berlin, 1914, p.168.
- [6] Quote by Мерцалова, М. Н. (1993). *Костюм разных времён и народов*, АО „Академия Моды”, Москва, Volume 1, p.163.
- [7] Димитрова-Попска, П. (2003). *История на костюма и орнамента*, Техника, София, p.109.
- [8] Quote on internet resource „*Miss Lily Elsie. Quotes from Lucile's memoirs*”, date of visit 19.01.2018. <http://www.lily-elsie.com/lucile.htm>
- [9] Quote on Internet resource „*Miss Lily Elsie. Quotes from Lucile's memoirs*”, date of visit 19.01.2018. <http://www.lily-elsie.com/lucile.htm>
- [10] See O`Хара, Дж., Энциклопедия на модата, Библиотека 48, София, 1995, p.222
- [11] Quote by Мерцалова, М. Н. (1993). *Костюм разных времён и народов*, АО „Академия Моды”, Москва, Volume 1, p.164.

### BIBLIOGRAPHY:

- O`Хара, Дж., Энциклопедия на модата, Библиотека 48, София, 1995
- Defert, Thierry et Lepape, Claude, *Georges Lepape ou l'Élégance illustrée*, éditions Herscher, Paris, 1983
- Julius, Paul, *Was Ziehe ich an?*, Wedekind, Berlin, 1914
- Мерцалова, М. Н., *Костюм разных времён и народов*, АО „Академия Моды”, Москва, Том 1, 1993
- Димитрова-Попска, П., *История на костюма и орнамента*, Техника, София, 2003
- Стойков, Любомир, *Теоретични проблеми на модата*, Национална Художествена Академия, София, 2006
- Erté, *My life, my art: an autobiography*, E.P. Dutton, New York, 1989
- Brown, Susan. *Fashion: The Definitive History of Costume and Style*, DK Publishing, United Kingdom, 2012.

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