

## ON THE PRINCIPLE OF ORDER IN CIVILIZATION AS EXEMPLIFIED BY CHANGES OF FASHION

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THE idea has no doubt often been held which the talented dogmatist LeBon voiced in the assertion that most social phenomena are expressible by nearly similar and presumably simple geometrical curves.<sup>1</sup> The rise and fall of national arts and of national fortunes certainly seem to bear out such a conception, even though definite proof has apparently never been attempted. Historians frequently allude to the development and degeneration of a state, or of some aspect of its civilization, as if such symmetrical growths and declines were familiar and normally recurring events; but they beware rather consistently from formulating the assumption into a principle, or proclaiming it as an abstract and accurate law.

If one considers the story of the Elizabethan drama from its stiffly archaic inceptions through the awakening in Greene and Marlowe, the Shaksperian glory, the slackening to the level of Fletcher, Webster, Ford, and Massinger, to the close of the play-houses by the civil war, the picture of an even-sided curve rises in the mind. The masterpieces of the greatest member of the school fall in the first decade of the seventeenth century. His more prolix and less intense tragedies and comedies, and the plays of contemporaries nearest him in achievement, precede and follow by a few years. Each quinquennium more distant from the culmination is marked by greater crudity in recession, more extended laxity in progression of time; and the total duration before and after the acme is substantially equal.<sup>2</sup>

<sup>1</sup> *The Psychology of Peoples*, London, 1898 (New York, 1912), page 12, footnote.

<sup>2</sup> *Ralph Roister Doister*, published 1566; *Gammer Gurton's Needle*, 1575; Lyly, wrote 1580-93; Greene died 1592, Kyd 1594, Peele 1598; blank verse in *Tamburlaine*, 1587; Shakspeare's first period, 1589-1594; Marlowe died 1593; Shakspeare's second period, 1594-1601; third period—"Hamlet," "Othello," "Lear," "Macbeth"—

If such a surge stood unique, it would be meaningless. But it is so often repeated in the history of aesthetics, that something of a generic principle must be involved. The classic French drama, that of Spain, of ancient Athens; the briefly great literatures of Rome, Portugal, and Germany; the so-called romantic poetry of England—even the minor stirring known as American literature; Italian art of the Renaissance; the Dutch and Flemish schools of painting; Greek sculpture—and, we might add, philosophy—each of these isolable movements has been traced through a similar course of origin, growth, climax, decline, and either death or petrification, analogous to the life stories of organisms.

While however we are obviously hovering above a latent principle embodied in these phenomena, its expression in exact form, capable of successful application in the resolution of other events of human history, is difficult; chiefly because the variability of the phenomena is qualitative, whereas a workable law or deterministic principle must be quantitative in its nature. It would indeed be possible to assemble comparative ratings of the degrees of achievement attained by each participant in any of these movements, to convert these ratings into numbers, and to trust to the averaging of opinions to efface, to a greater or less extent, the subjectivity of the individual judgments used. But such a procedure is too loose to promise much real advance of understanding. After all, it would rest on a series of composite photographs of verdicts as to qualities, and not on verifiable measurements.

The field of political history is also rich in data that point in the same direction. As a boy it seemed to me possible to express numerically the relative strength and prestige of the several Greek city states at intervals of equal duration, and thus to outline sharply the varying course of Hellenic history; and I remember computations actually entered in the attempt, which has very likely been made at one time or another by others. Everyone will recall in this connection the comment on the fall of Rome under Romulus

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1601-08; Jonson wrote chiefly 1598-1614; Shakspeare's fourth period, 1608-13; Webster's best plays, 1612, 1616; Beaumont died 1616; Fletcher died 1625; Ford's best plays, 1629-34; Massinger, first play 1620, died 1639; closing of the playhouses, 1642.

Augustulus, whose name combined that of the founder and that of the exponent of the greatest success of the eternal city; and how, as at the laying of the walls first six and then twelve vultures flew overhead, the state grew, and then declined, for a total existence of an equal number of centuries. The anecdote is a play of symbolic fancy primarily, or perhaps a mnemonic device; but it also appeals dimly to a sense of historic necessity, of rhythmic inevitability, such as the later middle ages were fond of dwelling on in allusions to the wheel of fortune which revolved for nations as well as persons.

There is no need of citing at length similar cyclical growths familiar from more modern times: the rise and flourishing and decay of Venice, Florence, Poland, Portugal, Spain, and Holland.<sup>1</sup> There are even cases of repetition, as of the acmes reached by France under Louis XIV, Napoleon I, and Napoleon III—the three crests themselves constituting an ascending and descending climax of a higher order. Lane-Poole, in his diagrammatic representations of the history of the Mohammedan chalfates and kingdoms, although operating solely with the elements of geography and time, gives several figures that approach closely to a polygon of frequency or normal curve such as the statistical sciences employ.<sup>2</sup>

Political fortunes have this advantage over the fluctuations of the arts: they are readily expressible, and with substantial accuracy, in such quantitative terms as square miles of territory or drachmas or pounds of tribute and revenue. On the other hand, they suffer, as a medium for analysis, through their complexity. Any one of a number of factors, or any combination of them, may make or unmake a nation: a change of political institutions, a military invention, an economic alteration, a new demand or utilization of natural resources, a wave of religious fervor. The resultant of these variables being a composite, would in many cases show little regularity. Then, too, where a concentrated political

<sup>1</sup> Compare Quetelet's bold attempt in *Du Système Social*, 1848, to determine a normal duration of empires and cities.

<sup>2</sup> S. Lane-Poole, *The Mohammedan Dynasties*, 1894. See especially "Growth" and "Decline of the Ottoman Empire," pages 190, 191; also "Mogul Emperors" on diagram facing page xx.

organization has been achieved, opportunities are put in the hand of an occasional genius, or even of the man of unusual talent, for much more spectacular accomplishment, perhaps, than in the fields of artistic and intellectual endeavor. An Aristotle or Goethe needs predecessors, a Genghis Khan or Napoleon only a constellation.

The fields of religion and society are not so open to these objections, but suffer from lack of statistics. Census data are less common, except in the most recent years, than records of territories and dynasties. In the matter of religion, also, they necessarily relate chiefly to its organizational aspects, which, being crystallizations, do not keep pace with inward movements, and change by distorting jerks instead of fluidly.

Manufactured objects offer an approach which no other class of civilizational data presents: they can be accurately and easily measured. Yet often there are difficulties in this domain also. The series of articles preserved from the past are often insufficiently large, or from interrupted periods, or of uncertain date. Then, utilitarian pieces do not modify freely. Their purpose is likely to impose definite and narrow limits on their variability of form. A new material, or an added invention, may bring about a modification as sudden as it is radical; after which a new era of comparative stability ensues. Material objects whose chief end is ornament—jewelry, for instance—are much more free from the last mentioned defect. Still more promising are decorative or semi-decorative things of which satisfactory illustrations are available in numbers, in place of the concrete specimens themselves: articles of dress, for instance, as represented in fashion magazines. Such journals have existed for over a century; they are exactly dated; and they bring together in each volume a considerable number of examples to which rule or calipers can be applied without hindrance. That the actual wear of average men and women lags somewhat ineffectually behind the incisive styles of models or pictures, is immaterial. A knowledge of the course followed by ideals of dress is quite as valuable, as a contribution to the understanding of civilization, as knowledge of real dress; and this both *per se* and as an exemplification of the processes involved.

## FASHIONS IN DRESS

Twenty years ago the project of inquiring into the principles that guide fashion arose in my mind, and I went so far as to turn the leaves of volume after volume of a Parisian journal devoted to dress. But the difficulties were discouraging. Pivotal points seemed hard to find in the eternal flux. One might measure collars or sleeves or ruffles for some years, and then collars and sleeves and ruffles disappeared. One lady in a plate was seated, another erect, a third in profile, the fourth elevated her arms. If one took as a base the total length of the figure, coiffures fell and rose by inches from time to time, or were entirely concealed by hats or nets. I abandoned the plan as infeasible.

In 1918 I renewed the endeavor, this time with less ambitious scope and greater readiness to seize on any opening. I decided to attempt only eight measurements, four of length and four of width, all referring to the figure or dress as a whole, and to disregard all superficial parts or trimmings. Strict comparability of data being essential, it was necessary to confine observations to clothing of a single type. Women's full evening toilette was selected. This has served the same definite occasions for more than a century; does not therefore vary in purpose as does day dress, nor seasonally like street clothing. The material always remains silk, and there have been no totally new fundamental concepts introduced, such as the shirtwaist and tailored suit. The variations are therefore purely stylistic. And while this range promised to be perhaps somewhat narrower than those of certain other types of women's wear, this was of little moment. If any principle could be determined, it would apply *a fortiori* to the more changeable kinds of clothing.

## MEASUREMENTS

The measurements made were the following:

1. Total length of figure from the center of the mouth to the tip of the toe. If the shoe was covered, the lowest point of the skirt edge was chosen. The selection of the mouth obviated all difficulties arising from alteration of hairdress.
2. Distance from the mouth to the bottom of the skirt. This

equals the last measurement less the height of the skirt from the ground.

3. Distance from the mouth to the minimum diameter across the waist. This serves as some sort of indication of the length of the "waist" or corsage, that is, of the upper part of the figure. The true waist line of the dress has been disregarded. It would have been much more significant stylistically and probably shown more decided variations; but there are periods when it vanishes. When the waist line is visible and below the minimum diameter of the waist, the distance between the two was also noted.

4. Depth or length of décolletage, measured from the mouth to the middle of the corsage edge in front.

5. Diameter of the skirt at its hem or base.

6. Maximum diameter of the skirt at any point above the base. In some cases this exceeds the diameter at the bottom. Ordinarily it is smaller, but in some instances nevertheless definitely visible: that is, the skirt swells, constricts, and flares again. This diameter did not prove a generally useful measurement. Whenever it could be taken, the distance from its middle to the mouth was also recorded as a supplementary datum.

7. Minimum diameter in the region of the waist.

8. Width of shoulders, or more accurately, width of the décolletage across the shoulders. In the earlier years of the period covered, the upper edge of the dress frequently passes below the point of the shoulder, across the uppermost part of the arm, as a bertha or slight sleeve. In such cases the measurement was recorded. Of recent years, the corsage often really ends under the arms, being held up in appearance by straps over the shoulders. Here it seemed best to measure the distance between the straps. When however the strap is pushed off the shoulder to fall loosely down the arm, or is wholly wanting, the present measurement had to be omitted.

Ten figures were measured for each calendar year, the first ten suitable for measurement being taken from each volume, so as to ensure random instead of subjective selection. Fashion journals of the middle of the nineteenth century contain fewer

illustrations than recent ones. It sometimes happened therefore that only seven or eight toilettes were represented in the numbers from the first of January until summer, when full dress styles suspend seasonally. In such cases the rear end of the volume for the preceding year was drawn upon to supplement the deficiency. An entry like 1857 is thus normally based on plates issued from January to March or April or May of that year, but occasionally would begin in December or even November of 1856. Even at that, insufficiency of material or oversight has resulted in a few years being represented by only nine sets of measurements. Unfortunately also, there is scarcely a year for which ten illustrations could be found in each of which all eight measurements were recordable. A gown may be shown very completely in full face except for one corner of the skirt, which is hidden behind the chair of a seated companion. The basal skirt width can often be pretty well guessed in such cases, and an estimate was generally made; but only actual measurements have been included in the averages discussed. If in the taking of the observations such a deficient figure had been passed over, the next picture might have indeed exhibited the desired skirt width, but failed to show two or three other features; and too firm an insistence on all eight traits would often have yielded only three or four instead of ten measurable illustrations in a year. For instance, there are periods when it was overwhelmingly fashionable to hold the forearm horizontal, or to bring out the convexity of the bust by drawing it in semi-profile. In such years waist diameters are mostly obscured by the arm, and full shoulder widths very hard to get. The consequence of all these little circumstances is that the majority of the eight features observed are represented, year by year, by less than ten measurements, sometimes only by four or five. On the whole, preference was given to observations of the entire figure length, which was to be used as a norm for computations; and to the two next greatest measures, skirt length and width. For these, then, the series of data are fullest.

It must be admitted that ten measures is not a very large maximum from which to derive reasonably true averages in so variable

a thing as fashionable dress, where each design strives almost as keenly after distinctiveness as after conformity to the prevailing style. I was conscious of this slenderness of basis. But the measurements as well as the reductions to percentages and averages are time-consuming; and for a preliminary investigation it seemed wiser to obtain a comparatively long series of small groups of measurements than to operate with measurement groups of a size more reliable for averages but covering fewer years. Ten cases from each of seventy-five years would give a better surveying perspective than twenty-five cases continued for thirty years; in addition to which the ten or approximately ten illustrations were rather readily obtainable, whereas it would have been bibliographically exacting to find twenty-five for most of the earlier years.

The outcome vindicated the hazard. The smallness of the series is unquestionably the cause of many of the fluctuating irregularities that appear in the chronologically arranged results. But in the case of every dimension the irregularities are not so great as to prevent recognition of the underlying drifts and tendencies; whereas the period of these tendencies is mostly so long that they would have been very imperfectly determinable, and often not at all, within a compass of only thirty years. In fact it would have been desirable if the range of investigation could have been extended from 75 years to 125. The net result of a larger series of cases would therefore have been a probable smoothing and increased regularity of the plotted curves expressive of the course of fashion; and some segregation of the present irregularities into historically true ones and others that represent only statistical inadequacy. But presumably nothing more would have eventuated from the increase of data.

I may here express my conviction that any farther quantitative investigations that may be undertaken as to the course of stylistic changes should be planned to cover if possible a period of from one to two centuries, whether they concern fashions of dress or of jewelry, silverware, or furniture.



## THE DATA OBTAINED

I began the measurements with the year 1844 for the reason that that was the first volume of a fashion journal which I happened to know to be accessible in New York city, where I then was. The journal was the *Petit Courrier des Dames* in the Avery Library of Columbia University. The broken set ended in 1868, and I was driven to the Public Library for continuation. *Harper's Bazar* was available here in complete file to the present, and in it were made the measurements up to 1908. The Parisian journal contained beautiful lithographs only, the American exponent of fashion woodcuts of a horribly crude kind; and I feared at first that the difference in mode of illustration would vitiate comparison, and render wasted the work already done. The American waists seemed at least a quarter thicker, and all of the proportions clumsier. Juxtaposition of the percentages for adjacent years however proved at once that the difference was only in artistic execution. The American draftsman fell as far short of his French colleague as the American designer was obviously doing slavish imitations of French models. In the same way the introduction, years later, of the zinc-engraved ink drawing, and then of the half-toned wash painting, yielded an entirely new type of fashion plate without in the least affecting the fashions represented.

Still more recently, half-toned photographs of living models suddenly made their appearance, and again I was disconcerted. Surely no dress worn on an actual human frame could be as extreme as the stylistically idealized pictures that had preceded. But again alarm was vain. Fashion journals are conducted to serve a definite practical purpose whose achievement their users can apparently gauge; and the reproduction, whatever its manner, must conform. The appended percentaged comparisons for several years are convincing as to the substantial unity of the data employed.

The chief constant difference of any consequence appears to be the diameter of the waist—dimension 7—which is greater in life. That is, draftsmen of fashion plates pinch this in beyond the cut of actual dresses; and that even when a thick waist is correct, as in these years from 1912 to 1917.

COMPARISON OF FASHION PLATES RESPECTIVELY DRAWN AND PHOTOGRAPHED FROM LIVING MODELS

Dimension	1912		1913		1917	
	5 Dr.	5 Ph.	7 Dr.	3 Ph.	6 Dr.	4 Ph.
1. ....	100	100	100	100	100	100
2. ....	98.5	98	94.2	89.3	86.3	90.9
3. ....	24	24.6	26.1	24	24.2	24.5
4. ....	13.8	13	16.7	13.7	14.3	15.7
5. ....	25	29.8	32.7	36	60.2	49.9
6. ....	—	—	—	—	—	—
7. ....	12.7	13.6	12.5	15.8	11.5	16
8. ....	9.7	13.3	12.5	15	11	12.2

From 1909 to 1918, I had available volumes of *Harper's Bazar* in the Public Libraries of New York and San Francisco; and the fashions for 1919 are taken from the March number of *Vogue*.

THE DATA FOR 1859, 1886, 1910

(1)-(8), as defined; (9), distance from mouth to middle of maximum diameter of skirt; (10), distance from minimum diameter at waist to waist line or point of corsage; all in millimeters. Figures in parentheses are estimates.

1859

(1) .....	120	125	113	125	133	125	125	129	125	123
(2) .....	120	125	113	125	133	125	125	129	125	123
(3) .....	(30)	31	29	31	34	30	32	33	32	29
(4) .....	16	17	16	18	24	14	16	17	22	13
(5) .....	(115)	147	142	140	153	150	140	146	142	135
(6) .....	—	145	136	142	—	—	145	—	—	—
(7) .....	(9)	9	10	—	—	—	10	—	—	9
(8) .....	(19)	24	20	23	24	23	21	23	(22)	25
(10) .....	14	14	13	18	17	7	10	—	15	—

1886

(1) .....	148	145	148	161	159	150	160	162	181	137
(2) .....	142	137	144	158	155	—	152	155	171	130
(3) .....	42	41	44	46	42	41	43	45	51	38
(4) .....	22	24	21	26	28	23	23	20	23	—
(5) .....	76	59	105	83	65	70	125	(77)	151	63
(6) .....	—	56	—	72	71	54	55	—	65	—
(7) .....	14	14	12	13	13	11	11	15	21	14
(8) .....	29	21	17	25	28	17	19	—	26	—
(9) .....	—	82	—	69	85	63	72	—	77	—
(10) .....	—	—	14	16	18	—	—	—	18	—

1910

(1) .....	99	108	112	105	110	120	113	116	118	124
(2) .....	99	102	112	105	110	120	113	114	118	124
(3) .....	25	26	31	28	28	30	26	30	26	32
(4) .....	13	—	17	15	11	21	12	13	—	18
(5) .....	30	32	52	50	25	34	39	31	34	(44)
(7) .....	12	11	14	13	14	15	12	13	—	14
(8) .....	10	—	13	—	16	17	15	14	—	19

It is surprising how poorly equipped in fashion journals the greater institutional libraries of our largest cities are. For those interested in similar researches, I would recommend inquiry at theatrical organizations for data on dress, and files of manufacturers' catalogues for industrial products.

It has not seemed necessary to print my measurements in full. I append those of three years as samples. The complete manuscript data are at the disposal of anyone who may be interested to follow the matter farther.

The absolute numbers were throughout converted into percentage ratios to the length of the entire figure as it has been defined. The percentages for each measure were then averaged for each year. It is these year percentage averages that are brought together in the appended summary tabulation, are plotted in the charts, and are throughout referred to in the discussion that follows:

RATIO OF DRESS DIAMETERS TO HEIGHT OF FIGURE

	2	3	4	5	7	8
	Length of Dress	Length of Waist	Decolletage	Width Skirt	Width Waist	Width Shoulders
1844.....	97.9	28.9	14.6	57	8.2	20.3
1845.....	97.5	27.9	14.1	59.4	8.4	19.7
6.....	98.2	28.4	13.1	57.3	8.3	18.7
7.....	98.4	28.9	14.8	64.7	8.8	19.6
8.....	98	27.8	13.4	59.6	8.5	20
9.....	97.9	28.7	13.3	62.7	8.4	20
1850.....	97.8	28.6	12.7	64.2	8.2	20.7
1.....	98.7	29.4	13.9	61.3	8.4	21.2
2.....	97.6	27	14.1	70.3	8.3	21.4
3.....	98.1	27.7	12.8	70.2	7.7	21.2
4.....	97.9	27	14.1	79.3	8.4	20.6
1855.....	98.2	27.9	13.3	83	9	21
6.....	98.3	27.7	13.4	89.2	8.6	19.1
7.....	98.4	26.7	13.9	86.2	9	19.6
8.....	99.6	26.8	15.2	100.3	7.9	18.8
9.....	100	25.3	14.4	115.6	7.8	18.2
1860.....	99.8	24.8	12.3	107.1	7.6	18.1
1.....	100	24.9	12.3	104.3	8	17.8
2.....	99.6	24.1	13.2	96.1	7.6	17.9
3.....	98.7	24.9	13.1	101.6	9	17.1
4.....	99.5	23.9	13.5	100.1	8.5	18.1
1865.....	99.8	22.8	12.7	108.6	8.6	17.5
6.....	99.8	22.4	12.8	99.7	8.2	18
7.....	97.9	21.2	11.7	98.7	8.1	16.7
8.....	98.8	22	12.7	88.4	9	16.1
9.....	100	21.8	13.8	85.5	9	16

	2	3	4	5	7	8
	Length of Dress	Length of Waist	Decolletage	Width Skirt	Width Waist	Width Shoulders
1870.....	99.1	22.2	12	88	9.2	16.8
1.....	99.3	22	13	74.9	9	16.4
2.....	99.3	22.8	15	77.6	11	16.7
3.....	99.2	24.5	13.8	84.8	10.1	18.3
4.....	99.2	22.2	14.1	84.5	9.5	15
1875.....	100	22.3	14.1	79	10.4	17
6.....	99.2	23.6	13.4	84.7	9.5	13.5
7.....	98.7	23.8	13.5	76.4	8.7	13.7
8.....	99	24.8	14.5	70.9	8.9	14.6
9.....	98.7	26.1	13.3	62	8.7	15
1880.....	98.7	27.5	15.4	68.8	8.7	14.1
1.....	97.7	27.6	14.2	52.3	8.5	14.7
2.....	96.6	26	12.7	56	7.8	15.3
3.....	96.9	26	12.8	54.7	8.6	17.2
4.....	96.4	26.2	13.1	52.2	8.2	14.4
1885.....	97	27.4	14	56	8.7	15.2
6.....	95.8	27.3	14.9	56.6	8.9	14.7
7.....	95.5	27.2	12.9	50.9	8.3	14.2
8.....	95.7	27.6	14.1	57.8	8.3	13.1
9.....	96.6	27.7	13.6	51.5	9.6	13.2
1890.....	97.3	28.2	14.1	50.2	8.5	13.5
1.....	97.3	28.3	14.4	53.7	9.2	12.6
2.....	97.4	28.7	13.4	51.1	9.2	14.3
3.....	98.8	27	13.6	55	9.3	13.2
4.....	98.2	28.8	14	55.5	9.2	14
1895.....	98.7	27.4	14	60.7	8.6	15
6.....	99.2	27.9	14.3	68.2	9.6	15.2
1897.....	99.9	28.9	14.4	60	8.6	15.8
8.....	99.8	29.5	14.7	53	8.1	11.9
9.....	100	29.7	14.6	65.3	9.3	12.5
1900.....	99.3	30.5	15.1	52.5	8.7	13.4
1.....	99.7	30.5	12.5	64.8	9.4	13.3
2.....	100	30.1	13.1	58.9	9.9	11
3.....	100	32.6	15.2	50.4	9.6	13
4.....	100	32.3	14	56.5	9.9	14.8
1905.....	100	30.3	14.6	53.7	9.2	15.2
6.....	99.6	28.8	16.2	56	9.5	11.2
7.....	99.6	28	13.3	51.2	9.7	12.3
8.....	99.3	25.4	11.7	49	10.9	12.9
9.....	99.7	24.3	14.6	38.4	12.8	12.1
1910.....	99.2	25.2	13.3	32.9	11.7	13
11.....	98.6	26.1	14.2	23.2	12	12.2
12.....	98.2	24.3	13.4	27.4	13.2	11.7
13.....	92.6	25.5	15.4	33.7	13.6	13.3
14.....	91.8	25.3	14.4	29.1	13.9	15.2
1915.....	91.1	24.4	16.2	46.1	13.7	11.2
16.....	84.3	25	16.4	49.1	12.6	12.3
17.....	88.1	24.3	14.8	55.7	13	11.4
18.....	85.3	24.2	13.7	20.3	13.4	10.6
19.....	84.2	24.1	14.2	33.2	13.2	12.9
Average . . . .	97.7	26.4	13.8	65.3	9.4	15.6

## WIDTH OF SKIRT

Of all the elements of dress examined, that of diameter of skirt yields the most impressive results, especially in graphic plotting (fig. 20). The irregularities of the rhythm of change are also more quickly understood in this point of fashion than for most others. Nevertheless the superiority which skirt width enjoys over other factors as an index of demonstration is more apparent than actual. It is even exceeded by some of them in the wave-length of their periodicity.

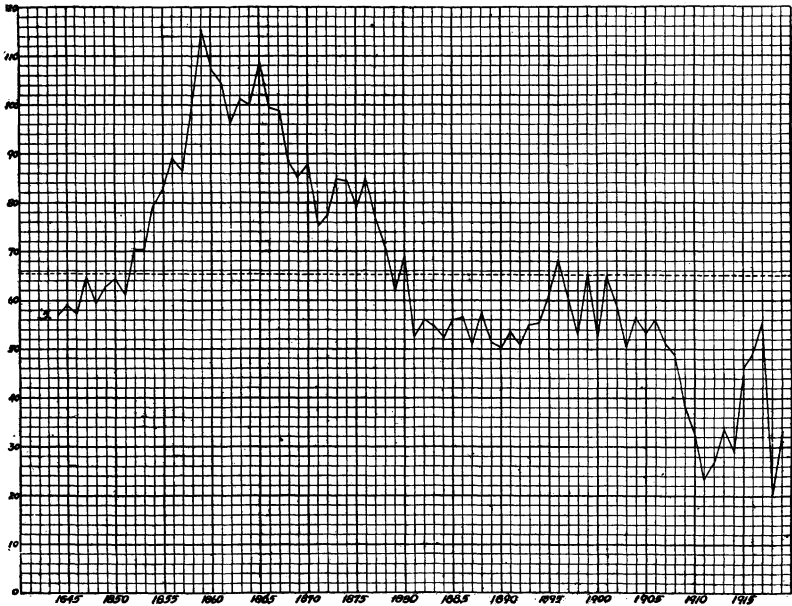


FIG. 20.—(5), Width of skirt.

The following remarks refer to the diameter of the bottom of the skirt. This is not always the maximum diameter. But on the whole the fashions that narrow the skirt downward are rare; and they disagree among themselves as to the region of the greatest width.

When our record opens in 1844, it finds evening toilettes of

moderate skirt width, 57 per cent. of the body length.<sup>1</sup> For several years the proportion fluctuates mildly, gradually rising.

In 1851, having attained a percentage of 61, the width of skirt suddenly begins to mount rapidly and continuously, until the plotted curve skyrockets to the extreme maximum of 116 in 1859. This is the apex of the crinoline hoop skirt fashion, when the flare of the skirt exceeds the height of the person. In eight years the skirt diameter has nearly doubled.

From 1859 on, the history of the skirt may be summarily described as a fifty years' progressive constriction.

The narrowing after 1859 is not as rapid as the widening immediately preceding; but within three years the proportion has fallen from 116 to 96. At this point a new sub-factor enters: the train. The skirt as a whole continues to lose fulness, but the attached train more than compensates for the shrinkage of diameter at its base. The plot therefore shows a checking of the descent, a new rise, and a secondary maximum of 108 in 1865.

The inflated, bell-like hoop skirt and the long-trained skirt are obvious antitheses, structurally as well as stylistically, and must have been felt so at the time. It is interesting that on wider perspective they prove both to have been only surface manifestations of a much more profound though less articulate impulse toward a pyramidal presentation of the figure.

From 1866 the great underlying swing toward narrower skirts continues, until about 1871 the figure has sunk to 75, although trains still rule.

In 1872 begins a second reaction, resulting in another superficial rise in the plot. This is due to the coming in of the "Grecian Bend," famous in the caricature of its day. This specialty however holds its own only four or five years, and by 1877 the proportion is back around 75.

From 1878 to 1881 the general narrowing which is the normal tendency for this era resumes, until in 1881 the percentage sinks to 52—a lower figure than any since the opening of our examination.

In 1881 the first trainless skirts in a dozen years appear, and

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<sup>1</sup> Mouth to toe, or to lowest point of skirt if the toe is covered.

until 1895 trainless and trained gowns occur side by side in about equal numbers. A skirt that rises well above the ground would ordinarily be narrower than a sweeping one. The inclination to constriction might expectably therefore be accentuated by the partial disappearance of the train; but this is not so. The general tendency of these fifteen years is for the diameter to remain stationary, with fluctuations between 50 and 60.

The period from 1895 to 1907 is one of more violent fluctuations, the limiting percentages almost attaining 70 and 50. The years from 1892 to 1898 show a widening and narrowing whose course looks as if it might constitute a third superficial wave. It is notable that the peak of 68 in 1896 is reached in a trainless year, this type of skirt prevailing also through the recession of 1897 and 1898 back to 53. The sudden widening to 65 in 1899 corresponds with the reintroduction of trains; but the succeeding years, with percentages of 52, 65, 59, and 50, constitute a period of almost exclusively trained skirts. From 1903 to 1907 the fluctuations are less violent, as if the reactionary tendencies that had forced the spasmodic widenings of the preceding decade were becoming exhausted, preparatory to the impending great impulse to constriction.

By 1908, the main sweep of the half century is once more on its way. For the first time in our story the basal diameter falls below 50. The next three years witness the final plunge into the extreme hobble and tube skirt toward which the progress of fashion has been consistently trending for a life time. The violence of this culmination is parallel to that of the inflation which 52 years before marked the end of the half century or more of gradual widening since the days of the Directoire and early Empire,—itself a period of accentuated revulsion from the flaring skirts of Louis XV and XVI. On the chart the recent chasm is as abrupt as the pinnacle of 1859. By 1911 the apogee of slimness is reached: the percentage is only 23—less than half the extremest narrowness attained in sixty preceding years, and but a fifth of the greatest width.

It is perhaps worth noting that trained and trainless skirts prevail side by side during these years.

By 1912 the tide has once more turned—no doubt to continue

now for another two or three score years unless the periodicity of the rhythm is accelerated by some unknown new cause or is totally broken off by an alteration of fundamental fashion, such as the substitution of trousers for skirts. As in 1860-62, the recovery is rapid: 23, 27, 34, 29, 46, 49, 56.

1918 and 1919 show a reaction toward narrowness, with percentages of 20 and 33. The former indeed is the lowest figure in the entire series—lower even than the true climax in 1911. The cause is in part a sudden loss of trains in 1918. Compare 1911, 4 trained skirts, 28.7, 6 trainless, 19.5; 1918, 1 trained, 44, 8 trainless, 17.4. On the other hand, there is also a real reaction in this year, as the figures for trainless skirts alone reveal. Thus 1911-14: 19, 20, 20, 13; 1915-17: 35, 49, 37; 1918-19: 17, 18. Perhaps the reconstruction of these last two years may be considered as paralleling the rewidening during 1863-65 after the recession from the peak of 1859.

The complicating factor of trained versus trainless skirts is dealt with in the following table, which begins with 1863, when trains were reintroduced. It appears that on the whole trains are less favored as a device for attaining width and trainless skirts as a means toward slenderness than might be anticipated. Rather do the proportions for both types of skirts rise and fall together according to the tendency of the time.<sup>1</sup> A train that springs from the waist or hip can indeed be used to give the effect of fullness. But one of equal or greater length that only begins to trail from below the knee allows the lower part of the figure to attain as much slimness as may be sought; and if wrapped around the ankle, may even accentuate the effect of constriction.

The average width of skirt for the 76 years is 65.3. It will be seen that from 1852 to 1878 inclusive this figure is exceeded each year, whereas before and after that period it is never attained, except in 1880 (68) and again in the spasmodic flares of 1896 (68) and 1899 (65). On the plot the horizontal line for this average

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<sup>1</sup> The numbers are too small for satisfactory graphic plotting, but indicate that with a larger series of cases the lines for trained and trainless skirts would roughly parallel the combined line shown—one above and one below it. At least two times out of three, perhaps oftener, they would move in the same direction.



helps to emphasize the crest and the trough of the great secular wave.

Year	Train		No Train	
1863.....	4	104.7	4	98.7
1864-5.....	all			
1866.....	6	106	2	81
1867.....	all			
1868.....	9	91	1	65
1869.....	all			
1870.....	6	93.2	1	57
1871-80.....	all			
1881.....	4	65.5	3	34.7
1882.....	5	72.4	3	28.7
1883.....	3	74.3	4	40
1884.....	3	67	6	43.3
1885.....	2	81	4	43.5
1886.....	4	70.7	5	45.4
1887.....	3	65.3	6	43.7
1888.....	3	83	6	45.2
1889.....	4	65.9	5	40
1890.....	6	58.3	4	38
1891.....	5	66	4	38.2
1892.....	8	55.2	2	35
1893.....	7	62.2	3	38.3
1894.....	3	66	7	50.6
1895.....	5	62.6	4	58.2
1896-8.....	all			
1899.....	9	66.9	1	51
1900.....	9	52.6	1	52
1901-3.....	all			
1904.....	9	56.7	1	55
1905.....	9	54.4	1	47
1906.....	9	56.1	1	55
1907.....	7	52.6	3	48
1908-9.....	all			
1910.....	3	43	6	27.8
1911.....	4	28.7	6	19.5
1912.....	7	30.4	3	20.3
1913.....	7	39.7	3	19.7
1914.....	6	37.2	3	12.8
1915.....	3	71.3	7	35.3
1916.....	1	50	9	49
1917.....	8	58.1	1	37
1918.....	1	44	8	17.4
1919.....	4	56	6	18

#### LENGTH OF SKIRT

There is a one sided correlation between width and length of skirt. A short gown may be full or narrow; but a tight one will scarcely extend very near the ground, on account of the inconvenience. A period of decisively close skirts will therefore almost

necessarily be a period of short skirts also; but the reverse does not hold.

There is a farther difference. A skirt may be of almost any width or narrowness in a fashion plate or on a posed model. When slenderness is desired, one leg is put behind the other, in a front view, and the dress made to cling to an exaggeratedly slim calf or ankle. In other words, there is no fixed limit of extremity. The possible length of a dress is however automatically cut off when it reaches the ground, or when, in an illustration, it descends far enough to conceal the feet. Yet a gown can shorten indefinitely.

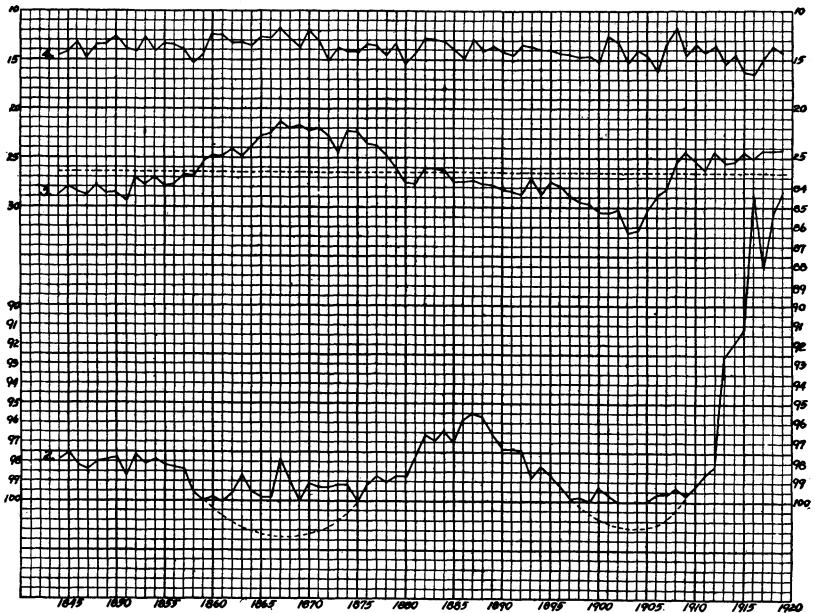


FIG. 21.—(2), Length of skirt; (3), Length of waist; (4) decolletage.

This brings it about that when skirt length attains its maximum, it remains apparently stationary for a time, whereas at its minimum it reaches a climax and quickly descends again. It might be said that fashion clearly tries, and is prevented only by physical impossibility, to draw the bottom of the dress several inches into the ground. In the chart (fig. 21), this discrepancy has been indicated

by two lines: a level horizontal one at the maximum of 100 per cent.; and a dotted one suggesting the ideal curve which the data show that style would follow if it could.

The rhythmic period for skirt length is only a third that for width: about thirty-five years as against a century. The chart and table yield the following summary.

Period	Duration	Measurements	Movement
[1844]-1859 .....	16 +	97.5 > 100	Gentle lengthening.
1860-1875 .....	16	at 99 or 100	Full length.
1876-1887 .....	12	100 > 95.5	Shortening.
1888-1899 .....	12	95.5 > 100	Lengthening.
1900-1910 .....	11	at 99 or 100	Full length.
1911-[1919].....	9 +	99 > 84	Violent shortening.

The curves, allowing for their impinging on the limit, look symmetrical; but if the figures for the seventy-odd years examined are representative, the wave-length of the trait is diminishing and the amplitude increasing. In untechnical language, style alters more rapidly and unrestrainedly on this point as time goes on.

#### DIAMETER OF WAIST

A first glance at the plot suggests that the greater part of a century has brought little change in the minimum diameter of the fashionable woman's waist; and that change irregularly fluctuating. The only very striking movement is at the end of the plot (fig. 22). But a grouping of the figures in the table brings out two definite swings each way.

Period	Duration	Measure	Description
1844-1857.....	14	8 <sup>1</sup>	Average.
1858-1862.....	5	7	Slender.
1863-1871.....	9	8	Average.
1872-1876.....	5	9, 10	Full.
1877-1888.....	11	8	Average.
1889-1900.....	12	8, 9	Above average.
1901-1907.....	6	9	Full.
1908-1919.....	12	10, 11, 12, 13	Very full.

<sup>1</sup>"8" = 8.1 to 9.0; and so for the other figures.

This might be put as follows in terms of tendency:

Ca. [1844] to 1860, decreasing.

Ca. 1860 to 1874, increasing.

Ca. 1874 to 1882, decreasing.

Ca. 1882 to 1914, increasing.

The durations would be about 16, 14, 8, and 32 years. This does not look very regular.

It must be remembered that the measurement used is the smallest diameter in the waist region, which usually does not coincide with the waist line as the cut of the dress brings it out, and often departs considerably from it. Stylistically this measurement is therefore somewhat arbitrary.

#### LENGTH OF WAIST

Length of waist, as here defined, is also an arbitrary measurement. It is the distance from the mouth to the middle of the minimum diameter of the waist, not to the formal waist line of the dress, which is sometimes strongly accentuated and at other periods indefinite. Could the height of the waist line have been satisfactorily used, there might perhaps have eventuated a considerably more striking amplitude or decision of rhythm.

As it is, the plot shows a marked shortening or raising of the waist, a still more decisive lowering, and then a sudden sharp rise again, which appears to have reached its consummation and to be hovering before a new decline. The period of waist lengthening extends from about 1867-69 to 1903-04, or approximately thirty-five years. On the assumption that the rhythm is symmetrical, the preceding acme of long-waistedness would fall around 1833. But the figures from 1844 to 1850 are too uniform to allow of much inference. They might, so far as their plot proves anything, come from a middle and more or less halted portion of a long swing toward high-waistedness, or be the end of a briefer tendency toward a drawn-out bust. A carrying of the investigation back some fifty years more would no doubt elucidate these questions.

In any event, the shortening of the waist between 1904 and 1909, which coincides with its enlargement, is a more extreme and

rapid movement than any that precede. It can further be noted that the culmination of the previous period of waist shortening, about 1867-69, is also a time of transverse enlargement; or to be accurate, in both cases the acme of shortness is attained while the

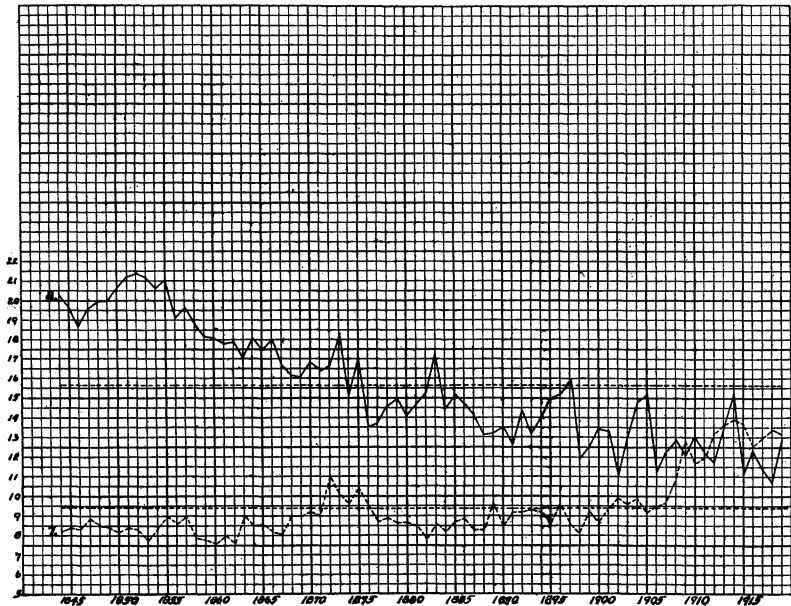


FIG. 22.—(7), Width of waist; (8), Width of decolletage.

movement toward thickness is well under way, the peak of this latter falling several years later. The effect on the bodily appearance is however quite different. The earlier high waist was directed toward producing a high and roundedly protruding bust, the later a flat one.

#### DECOLLETAGE

This is measured from the upper edge of the corsage to the mouth. The plot looks inconclusive; but the figures in the table show the following rhythms:

1844, at 14.6.

Then the corsage rises to 12.7 in 1850.

Exposure increases gradually to 15.2 in 1858.

It decreases again to 11.7 in 1867.

Lowering of the edge progresses to 15.4 in 1880.

Sudden rise to 12.7 by 1882.

Lowering to 15.1 in 1900.

Another sudden rise to 12.5 in 1901.

Lowering, with fluctuations, to 16.2 by 1906.

Rise to 11.7 by 1908.

Lowering to 16.4 by 1916.

Since then a rise seems in progress.

The periods of lowering, or increase of exposure, aggregate nearly three times as long as the rises of the corsage, which come by leaps, especially after 1880:

Decrease of exposure, 6 years; increase 8.

Decrease, 9; increase 13.

Decrease, 2; increase 18.

Decrease, 1; increase, 5.

Decrease, 2; increase, 8.

The cause of this asymmetry is not clear.

The periodicity is also rather irregular as regards duration. It seems to average around fifteen years.

#### WIDTH OF DECOLLETAGE

This trait appears to have a very long periodicity. The first few years of the record are indecisive: they may represent the end of a period of broadening of shoulder exposure. At any rate by 1851-53 a maximum is reached above 21. From here on a narrowing continues without substantial interruption for more than sixty years.

By 1861 the figure has sunk below 18, by 1869 to 16. An increase to 18.3 in 1873 may be discounted on the ground of being based on only three measurements. By 1876 the percentage has fallen to 13.5, and the plates evince a strong inclination to show the bust in profile; which is likely itself to be a symptom of aversion for expanse of shoulders.

1877 to 1883 are reactionary, with an increase to 17. This wave is however so brief in comparison to the general swing as to be obviously secondary.

From 1883 to 1891 the narrowing continues, reaching the new

low record of 12.6. From 1892 to 1897 there occurs another secondary broadening, which however fails to attain 16. From here on the course is fluctuating, but generally downward, as shown by the new low figures around 11 in 1898, 1902, 1906, 1912, 1915, and 1917, and a supreme minimum below 11 in 1918. The broadest decolletage in these last twenty years comes in 1905 and 1914 at 15. These may represent a third and fourth brief superficial rhythm carried on the downward swing of the underlying one.

The general course of this trait is similar to that of basal skirt width, with probability of an even longer period, though a less accentuated amplitude of variation owing to anatomical limitations.

Continuity of movement is particularly impressive when depth and breadth of decolletage are compared together in units of sufficiently large periods to smoothe out the fluctuations due to temporary changes of fashion and the irregularity that is inevitable when small series of figures are employed. It is true that the most striking event in the history of decolletage depth is its increase in recent years, which synchronizes with a decrease in width. Yet it is clear that this is no mere coincidence, but the culmination of a drift that has set for 70 years.

Period	Length to Width
1844-47	72 : 100
1848-53	64 : 100
1854-59	72 : 100
1860-65	72 : 100
1866-71	78 : 100
1872-77	89 : 100
1878-83	91 : 100
1884-89	97 : 100
1890-95	101 : 100
1896-01	104 : 100
1902-07	111 : 100
1908-13	110 : 100
1914-19	122 : 100

#### COMPARISON OF THE SEVERAL RHYTHMS

We have, I think, now found reasonable evidence of an underlying pulsation in the width of civilized women's skirts, which is symmetrical and extends in its up and down beat over a full century;

of an analagous rhythm in skirt length, but with a period of only about a third the duration; some indication that the position of the waist line may completely alter, also following a "normal" curve, in a seventy-year period; and a possibility that the width of shoulder exposure varies in the same manner, but with the longest rhythm of all, since the continuity of tendency in one direction for seventy years establishes a periodicity of about a century and a half, if the change in this feature of dress follows a symmetrically recurrent plan.

There is something impressive in the largeness of these lapses of time. We are all in the habit of talking glibly of how this year's fashion upsets that of last year. Details, trimmings, pleats and ruffles, perhaps colors and materials, all the conspicuous externalities of dress, do undoubtedly alter rapidly; and it is in the very nature of fashion to bring these to the fore. They are driven into our attention, and soon leave a blurred but overwhelming impression of incalculably chaotic fluctuations, of reversals that are at once bewildering and meaningless, of a sort of lightning-like prestidigitation to which we bow in dumb recognition of its uncontrollability. But underneath this glittering maze, the major proportions of dress change with a slow majesty, in periods often exceeding the duration of human life, and at least sometimes with the even regularity of the swing of an enormous pendulum. The child whose braids hang down her back may be reasonably sure that in the years when her daughters are being born she will wear longer dresses than her mother now goes about in; and that her skirts promise to be wider each successive decade until she is a grandmother. There is something in these phenomena, for all their reputed arbitrariness, that resembles what we call law: a scheme, an order on a scale not without a certain grandeur. Not that the fashion of a future date can be written now. Every style is a component of far too many elements, and in part uniquely entering elements, to make true prediction possible. But it does seem that some forecast can be made for any one basic element whose history has been sufficiently investigated; and that, when the event arrives, if the anticipation be proved to have been more or less erroneous, the



source of the aberration may be clear, and the disturbingly injected forces stand revealed as subject to an order of their own.

It is not to be expected that the development and decline of every trait of dress or civilization should follow a normal curve, that is, a symmetrical course. For an element of civilization wholly unrelated to all others, such symmetry could perhaps be anticipated. But completely integral elements are an idea rather than a fact. There must always be some interaction with other factors in the same and cognate phases of culture, and occasional interferences from more remote domains. A certain proportion of features should therefore follow irregular courses, or asymmetrical curves; and in this class it seems that diameter of the waist and depth of decolletage should be placed.<sup>1</sup>

Secondary tremors ruffling the evenness of the great pulsations are at first sight disturbing to the concept of orderliness, but on analysis confirmatory, in that they reveal an increase of the intricacy of the operative forces without diminishing their regularity. In this manner the long range curves for width of skirt and shoulders, each bearing about three superimposed but symmetrical minor crests, add substance to the generic conclusions reached.

Finally, while it would make for the greater simplicity of historical causality if it were found that acmes of fashion came in recurrences of equal periodicity, such regularity can hardly be expected. There is no conceivable reason why there should be anything inherent in the nature of dress tending toward a change from full to narrow and back to full skirts in a century. All historical phenomena are necessarily unique in some degree, in the field of nature as well as of human activity; and a similar rhythm of fashion

<sup>1</sup> Clark Wissler, *American Anthropologist*, N.S., vol. XVIII, pp. 190-197, 1916, points out that the distribution of sherds of certain decorative styles in the successive levels of the refuse heap at the ancient New Mexican pueblo of San Cristobal, as excavated and reported on by N. C. Nelson, follows typical curves, these curves each representing "the rise and decline of a culture trait." Each foot of debris may be taken as representing an approximately equal duration of deposition, as indicated by the fairly steady number of sherds of all types found at each depth. The figures are, for black-on-white painted ware, (103), 107, 118, 40, 8, 2, 6, 10, 2, 2; and for black or brown glazed yellow ware, 0, 3, 45, 91, 192, 128, 52, 68, 64, 24. The latter series may be skew.

might well extend over a thousand, a hundred, or ten years in different eras or among separate nations. Again, therefore, there is if not support for the idea of "law," at least no disconcertion in the fact that the past quarter century on the whole evinces distinctly more rapid and extreme variations of fashion than the half century preceding. This is the case for every feature examined except shoulder width.

#### CONCLUSIONS AS TO CHANGE IN CIVILIZATION

The fact of regularity in social change is the primary inference from our phenomena. The amplitude of the periodicities is of hardly less importance. Their very magnitude dwarfs the influence which any individual can possibly have exerted in an alteration of costume. Were each rhythm confined to a few years, it might be thought that a mind, a particular genius, was its motivating impulse; and the claim would certainly be asserted by those who like to see history as only a vast complex of biographies. But when a swing of fashion requires a century for its satisfaction, a minimum of at least several personalities is involved. No matter how isolating one's point of view, how resistant to a social or super-individual interpretation, how much inclined to explain the general from the particular and to derive the fashions of a world from the one focus of Paris, the fact remains that a succession of human beings have contributed successively to the same end. Once the existence of tendencies or forces transcending the limits of organically inherited personality is thus admitted, the entire field of the history of civilization becomes disputable ground for the two conflicting interpretations. If the major swing of skirt proportions during the nineteenth century is the product, wholly or partly, of super-individual causes, it becomes a valid speculation whether the smaller developments are not also due to similar mechanisms. The re-introduction of the train in 1863, the invention of the Grecian bend in 1872, may now be looked upon as the product of the dress styles that preceded them, or of other cultural factors affecting style, more justifiably than they can be attributed to the talent of a specially gifted mind and hand. The wedge has entered.

It is also evident how little even the intensest individual faculty can have added to the outcome of the greater revolutions, how little hastened their momentum. When a tide sets one way for fifty years, men float with it, or thread their course across it; those who breast the vast stream condemn themselves in advance to futility of accomplishment. A designer born with an inextinguishable talent for emphasizing what we may call the horizontal as opposed to the vertical lines of the figure, and maturing twenty-five years ago, might have possessed ten times the genius of a Poiret or Worth: he would yet have been compelled to curb it into the channels which they followed, or waste it on unworn and unregarded creations. What it is that causes fashions to drive so long and with ever increasing insistence toward the consummation of their ends, we do not know; but it is clear that the forces are social, and not the fortuitous appearance of personalities gifted with this taste or that faculty. Again the principle of civilizational determinism scores as against individualistic randomness.

It would be extravagant to infer that these conclusions deny the validity of superior minds, or even that they tend to minimize the differences between genius and mediocrity. There can be no questioning the universal experience that there are competent individuals and incompetent ones, and that the gulf between their extremes is vast. The existence of varying degrees of intellectual quality does not touch, one way or the other, the finding that there operate super-individual principles which determine the course of social events. The content of history as a sum and in its parts, so far as these have civilizational meaning, is the product of such principles. Whether individual *X* or individual *Y* is to have the larger share in bringing one particular product of his culture to fruition, depends on their respective native endowments, plus a greater or less modification by their educations, personal environments, and settings of circumstance. For the career of *X*, it is obviously of the greatest importance that his heredity and opportunities be more favorable than those of other individuals. On the contrary, given this advantage, it will very little affect his success in life whether his society be moving from polytheism to mono-

theism, from monarchy to democracy or democracy to tyranny, from bronze to iron, from the wearing of wide skirts to narrow, or the reverse.

Conversely, so far as these social changes are concerned, it can well be argued on theoretical grounds that the greater or less innate capacity of this or that individual, or of any limited number of individuals, is of negligible consequence. That this factor is actually negligible from the aspect of civilization, the analysis of the data here presented goes to show. In short, monotheism arises, an iron technique is discovered, institutions change, or dresses become full at a given period and place—subsequent to other cultural events and as the result of them, in other words—because they must.

Historians may have been chary of asserting such a principle; but the greatest minds among them have time and again accepted it implicitly, though vaguely. This is as true of Thucydides as of Gibbon, and explains why Herodotus was as much interested in ethnology as in anecdotes, and Tacitus could place a *Germania* beside his *Annals*.

Among the commonalty of men, such a recognition has not obtained, and does not now hold. What above all they are interested in, is their own lives and fortunes, their own feelings and acts, their competitions with other individuals and personal relations to them. Therefore, when they listen to history, or tell it, they look for what history can reflect that is similar; and what it offers of psychology and morality in its biographies, or those of its parts which can be distorted into dramatic crises or romantic tales, they seize with avidity.

The satisfaction of these interests has its justifiable function; only it prevents instead of cultivating an understanding of the workings of civilization. The individualistic view of historical phenomena is in its nature subjective, and its treatment must always remain subjective. To find "law" in the infinite intricacy of millions of inter-playing personalities is hopeless. We can not even begin to get the facts as they happened. A geologist could as usefully set himself the task of explaining the size and shape of each

pebble in a gravel bed. We are but such stones. Being human, we cannot however divest ourselves of inquisitiveness about other human beings as human beings, nor of inquisitiveness into their morality and psychology and of the desire for an aesthetic representation of their actions. Only, the pursuit of such impulses does not lead to knowledge that is scientifically applicable; nor to a comprehension of what lies beyond ourselves as individuals; of that which touches and permeates our lives at all moments, which is the material on which our energies are released, which could not be if we did not exist, but which yet endures before and after, and grows and changes into forms that are not of our making but of its own definite unfolding. Our minds instinctively resist the first shock of the recognition of a thing so intimately woven into us and yet so far above and so utterly uncontrollable by our wills. We feel driven to deny its reality, to deny even the validity of dealing with it as an entity; just as men at large have long and bitterly resented admitting the existence of purely automatic forces and system in the realm that underlies and carries and makes possible the existence of our personalities: the realm of nature. The center of our interests must always be personal. Yet this pivoting has not prevented an increasing realization of objectivity; nor will it prevent the realization that objectivity is to be found on levels beyond us in both directions, instead of one only. The super-organic or superpsychic or super-individual that we call civilization appears to have an existence, an order, and a causality as objective and as determinable as those of the subpsychic or inorganic. At any rate, no insistence on the subjective aspects of personality can refute this objectivity, nor hinder its ultimate recognition; just as no advance in objective understanding has ever cramped the activity of personality.

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