under the enchanted spell of a moonlit sky. Though the motif had become common coin in nineteenth-century art, Klee, as usual, was able to revitalize its potential mysteries by the power of his own symbolic language that here renders this nocturnal voyage all the more haunting by the inclusion of an arrow pointing to an unstated destination, and by the fusion of the night sky and sea into a continuous black plane that conceals the horizon and leaves us afloat in inky shadow.

NOTES

1. For further details, see Frederick Spencer Levine, "An Investigation into the Significance of the Animal as a Symbol of Regression and the Representation of the Theme of Apocalypse in the Art of Franz Marc" (Master's thesis, Washington University, 1972), pp. 16-17.

2. From journal of June 1902, quoted in Paul Klee (New York: The Mu-

seum of Modern Art, 1945), p. 8.

3. For the fullest and subtlest discussion of Klee's relation to the art of children and of the general question of the early twentieth-century search for simplicity and purity, see Robert Goldwater, *Primitivism in Modern Art* (rev. ed. 1966; New York: Random House, 1938), especially pp. 199ff.

4. For a convenient English translation of the "Creative Credo," see Victor Miesel, ed., Voices of German Expressionism (Englewood Cliffs, N.J.: Prentice-

Hall, 1970), pp. 83-88.

5. Ibid., p. 87.

6. Carl Gustav Carus, Neun Briefe über Landschaftsmalerei geschrieben in den Jahren 1815 bis 1824 (Dresden, 1955).

7. Miesel, op. cit.

Introduction, The History of Cubism, Cubism as a Stylistic and Historical Phenomenon*

EDWARD FRY

For its profound impact on picture making and its sheer prestige, the artistic phenomenon known as Cubism stands alone in twentieth-century art. And yet, basic issues and large questions continue to preoccupy and divide its critics. This was true in the beginning. The style evolved in pre-World War I Paris, and immediately a body of conflicting programs appeared. Despite appearances, there is no system to Cubism, nor is a principle of vision easily derived from the paintings themselves. Early commentary represented an effort on the part of artists and critics to render Cubist works more intelligible to the public. Among these, Gleizes and Metzinger, Du Cubisme (1912; English trans., Robert Herbert, ed., Modern Artists on Art, Englewood Cliffs, N.J.: Prentice-Hall, 1964), and Guillaume Apollinaire, Les Peintres Cubistes (1913; English trans., 2d rev. ed.; New York: Wittenborn & Co., 1949), stand as the most important.

This essay by Fry presents a broad survey of Cubism, from 1907 to 1914, written as an introduction to some of these documentary texts. And Fry depends upon these early writings for his basic assumptions. He sees Cubism as realistic in essence and in his discussion of the

^{*} Reprinted from the Introduction to Cubism (New York: McGraw-Hill Book Co., 1966).

problematic nature of Cubist reality, he draws parallels to contemporary philosophy.

Important recent literature on the subject includes: John Golding, Cubism: A History and an Analysis 1907–1914 (Boston: Boston Book & Art Shop, 1959); Robert Rosenblum, Cubism and Twentieth Century Art (New York: Abrams, 1961); Leo Steinberg, "The Philosophical Brothel" (Art News, September-October, 1972), and selections from Other Criteria: Confrontations with Twentieth-Century Art (New York: Oxford University Press, 1972); Alfred H. Barr, Jr., Picasso, Fifty Years of His Art (New York: The Museum of Modern Art, 1946).

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INTRODUCTION

The effects of Cubism are reverberating still throughout modern culture, but today at a distance of half a century it is possible to view with a certain clarity this extraordinary moment in history. For we are now becoming aware of the seminal quality of the decade ending in 1914, during which fundamental new ideas and methods were established in painting, sculpture, architecture, literature, music, science, and philosophy. In many of these fields the radical innovations of the pre-World War I years are still operative, or at least they remain as important influences against which more recent ideas must be tested. It was a period that saw the emergence of Mann, Proust, Apollinaire, Gertrude Stein; of Gropius and Frank Lloyd Wright; of Stravinsky and Schönberg; of Planck, Rutherford, Einstein, Bohr; and of Croce, Poincaré, Freud, Bergson, and Husserl. In painting and sculpture these same years produced Matisse, Picasso, Braque, Gris, Léger, Delaunay, Duchamp, Mondrian, Malevich, Kandinsky, Brancusi, Archipenko, Boccioni, and Lipchitz, to name only the most prominent of a brilliant galaxy of artists;1 the aesthetic innovations and achievements of these years were fully as important and as far-reaching as the work of scientists and intellectuals. It was, as will one day be recognized, one of the golden ages of Western civilization.

The evolution of painting, and of Cubism in particular, shared with science the common characteristic of drawing upon late-nineteenthcentury achievements, but, in so doing, of intensifying and transforming them. The result was the overthrow of much of the heritage of the nineteenth and earlier centuries. In certain respects Cubism brought to an end artistic traditions that had begun as early as the fifteenth century. At the same time, the Cubists created a new artistic tradition that is still alive, for they originated attitudes and ideas that spread rapidly to other areas of culture and that to an important degree underlie artistic thought even today. Cubism first posed, in works of the highest artistic quality, many of the fundamental questions that were to preoccupy artists during the first half of the twentieth century; the historical and aesthetic importance of Cubism, therefore, renders it worthy of the most serious attention.

The study of Cubist art, however, presents difficulties of several kinds. As a style first of all it evolved very rapidly through a series of complex stages. Thus it is necessary to follow its development chronologically and in precise detail, for crucial changes, particularly in Picasso, often took place during a period of months or weeks, as opposed to years or decades in older historical styles. This accelerated rate of stylistic change seems to have become the rule in twentieth-century art, and it may well be the effect of increased rates of change in other areas of a culture, particularly in the speed of communications. In the case of Cubism, however, it is quite possible that certain critical steps, once taken, implied, if not determined, subsequent developments, and that the genius of Picasso himself simply forced the pace of stylistic evolution.

Problems of chronology, therefore, are of the greatest importance in the study of Cubism. The very density of interaction at that time among a relatively large number of extremely gifted artists makes it necessary to consider dates most carefully. The central figure, Picasso, usually did not put a date on his paintings during the Cubist period, sometimes only giving a place name on the back of the canvas. Although an invaluable catalogue of his works has been maintained and is being published in a series of volumes,2 it is not complete and contains numerous errors of fact. Hence one must often turn to such biographical evidence as summer vacation trips in order to date Picasso's works, as is true also, to a lesser extent, of Braque and other Cubists. Neither Braque nor Picasso exhibited extensively before 1914, but other Cubists did so widely, and one must frequently turn to the now rare exhibition catalogues of the period for documentation of their works. Problems of chronology in Cubist collages are, however, occasionally simplified when identifiable and datable newspaper clippings appear in them.

As for the theoretical background of Cubism, Picasso and Braque,

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the two most important Cubists, have left us few if any written statements from before 1914 of their artistic ideas and intentions. Their ideas were their paintings, from which fact has arisen the cloud of theories and interpretations surrounding Cubism, a process that began with the frequently misleading writings of Guillaume Apollinaire and that has continued to the present day. Every generation looks at the past in a new way, according to the needs of its time or in order to find justification for its own art. Thus lasting works of art inevitably gather around themselves layer upon layer of successive reinterpretations; often it is only from a long distance in time that a work of art may be seen disinterestedly and more or less whole. But Cubism belongs to the relatively recent past, of which the present is still a part, and we cannot yet hope to situate it completely either in relation to its own time or to Western culture in general. For the present, therefore, it is perhaps most useful for us that we become more fully aware of what the Cubists and their friends thought were their original intentions, not forgetting at the same time that great works of art possess qualities and implications that surpass the ideas and forces that accompanied their birth.

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1. See the following exhibitions for cross sections of the period: 1907, Amsterdam, Stedelijk Museum, 1957; 1912, Köln, Wallraf-Richartz Museum, 1961; 1914, Baltimore, Museum of Art, 1964. "Years of Ferment," Los Angeles, U.C.L.A. Art Gallery, 1965.

2. Christian Zervos, Picasso (Paris, 1932), 14 volumes published to date. A similar catalogue of the works of Braque is being published in installments by the Galerie Maeght, Paris; see also the preliminary catalogue of Braque by Georges Isarlov: Georges Braque (Paris, 1932). An as yet unpublished catalogue of the works of Gris has been made by Mr. Douglas Cooper. [Currently there are twentynine volumes of the Zervos catalogue, the last published in 1975.—Eds.]

THE HISTORY OF CUBISM

Cubism developed with extraordinary rapidity between the years 1907 and 1914. From 1914 until about 1925 there were a great many artists painting in a Cubist mode, but this later phase produced relatively few stylistic innovations that had not already been anticipated to some extent during the prewar years. By the mid-1920s, a crisis emerged in Cubism as in European art generally, bringing to an end a period of almost twenty years during which Cubism had been the predominant force behind an entire artistic generation.

In its beginnings, however, and until about 1912, Cubism was an exclusively Parisian phenomenon, and it probably could not have been born elsewhere, for reasons of history, geography, and culture. No other city in the world in the early years of the twentieth century could boast of a comparable century-long history of outstanding artistic activity; and the relatively central location of Paris in western Europe served only to facilitate the migration of the most gifted young artists and writers from Spain, Italy, Germany, Russia, and the Low Countries toward this cultural mecca. Paris offered them not only the challenge of their most gifted contemporaries, but also its great art museums; it offered a tradition of moral and intellectual freedom and an artistic bohemia in which they could live cheaply at the edge of society without suffering the ostracism inflicted by the bourgeoisie in smaller, more conservative, and less cosmopolitan European cities. In retrospect it is not surprising that, by the early part of the twentieth century, Paris contained an astonishing number of young men of genius, whose presence constituted an intellectual "critical mass" that soon produced a series of revolutionary cultural explosions.

In painting the first of these was Fauvism, a derogatory label given to the work of Henri Matisse (1869-1956) and his followers, who, starting in about 1904, used color with an unprecedented freedom, intensity, and arbitrariness. No less important was the discovery, and appreciation for the first time on aesthetic grounds, of African and Oceanic art; this discovery was made by several of the Fauve painters, notably Vlaminck, Derain, and Matisse himself. "Primitive" sculpture was shortly to play a brief but important role in the evolution of Cubism (see figs. 11, 19).

But Fauvism on the whole did not mark a decisive advance beyond the innovations of late-nineteenth-century painting. Rather, it was a recapitulation and intensification of such previous developments as the modified pointillism of Signac, the brilliant coloristic achievements and expressive brushwork of Van Gogh, and Gauguin's decorative color patterns. The masterpiece of Fauvism, Matisse's Joy of Life (1906; fig. 4), epitomizes the essentially conservative nature of the Fauvist enterprise in its consummate summing-up of tendencies in late-nineteenth-century painting, combined with a lingering flavor of Jugendstil arabesque.

Above all the Joy of Life does not put forth any new conceptions of space, although depth is compressed somewhat in the manner of Manet's Luncheon on the Grass (1862–1863), and curiously enough the composition itself is remarkably akin to that of Ingres's The Golden Age (1843–1847).

It is only in relation to this contemporary Fauvist context that the radically new qualities of Pablo Picasso's (1881-)* Demoiselles d'Avignon (fig. 37) emerge most clearly. Finished by the middle of 1907,¹ it is probably the first truly twentieth-century painting. For whereas Fauvism marked a summing-up of late-nineteenth-century art, Les Demoiselles contained new approaches both to the treatment of space and to the expression of human emotions and states of mind. It is not difficult to imagine that twentieth-century art as we know it today might have developed along far different lines without this first revelation of Picasso's genius.

In Les Demoiselles Picasso posed and attacked many problems at once, some of which he was to resolve only during the course of the following seven years. The subject, a brothel scene, recalls Picasso's interest, during his previous blue and pink periods, in episodes from the lives of those on the margin of society, as in fact he himself lived during his years in Montmartre, beginning in 1904. But while the brothel as a theme appeared frequently in late-nineteenth- and early-twentieth-century painting, as for example in Toulouse-Lautrec and Rouault, Picasso's version is as far removed from the spirit of irony or pathos of his predecessors as it is from the empathy and restrained lyricism of his own earlier painting.

But what makes Les Demoiselles a truly revolutionary work of art is that in it Picasso broke away from the two central characteristics of European painting since the Renaissance: the classical norm for the human figure, and the spatial illusionism of one-point perspective. During the year previous to the completion of Les Demoiselles, Picasso had turned to various sources in his search for a new approach to the human figure, the most influential of these being Iberian sculpture, El Greco, and the work of Gauguin, particularly his carved sculpture. But the decisive influence on his thinking was African sculpture, which, despite his published denial, he must certainly have discovered by the winter of 1906/07 if not before. The examples of sculpture from the Ivory Coast and other French colonies in West Africa, which he saw either at the



37. Pablo Picasso: Les Demoiselles d'Avignon. 1907. Oil on canvas. 96" × 92". Collection The Museum of Modern Art, New York, acquired through the Lillie P. Bliss Bequest.

Trocadéro Museum (today the Musée de L'Homme), in the private collections of his friends, or at the shops of secondhand dealers, undoubtedly inspired Picasso to treat the human body more conceptually than was possible in the Renaissance tradition. This new approach appears most clearly in *Les Demoiselles* in such details as the reduction

^{*} Picasso died on April 18, 1973.—Eds.

of human anatomy to geometrical lozenges and triangles, as well as in the abandonment of normal anatomical proportions. African influence is even clearer in the masklike faces of the two right-hand figures, which were probably finished later than the rest of the painting.³

These departures from classical figure style are more than simply a variation on an existing tradition; they mark the beginning of a new attitude toward the expressive potentialities of the human figure. Based not on gesture and physiognomy but on the complete freedom to reorder the human image, this new approach was to lead to the evocation of previously unexpressed states of mind, particularly in the hands of the Surrealists and above all by Picasso himself in his great works of the 1930s and later 1920s.

The treatment of space is, however, by far the most significant aspect of Les Demoiselles, especially in view of the predominant role of spatial problems in the subsequent development of Cubism. The challenge facing Picasso was the creation of a new system of indicating threedimensional relationships that would no longer be dependent on the convention of illusionistic, one-point perspective. To help him he had little but the tentative solution offered by Paul Cézanne (1839-1906), whose work had recently been shown in several large retrospective exhibitions in Paris, beginning in 1904.4 Although as a result of his associations with the Impressionist generation there always remained in Cézanne's art a strong residue of optical empiricism, by the mid-1880s he had developed a way of denying illusionism by means of integrating surface and depth in his paintings, particularly by passage—the running together of planes otherwise separated in space—and other methods of creating spatial ambiguity; at the same time, however, one must remember that Cézanne's intentions were very different from those to which the Cubists would later apply his methods.

In addition Cézanne had broken with the Renaissance tradition of composition by which forms were disposed harmoniously within the illusionistic stage space of one-point perspective. Cézanne, instead, had gone a step beyond the break with tradition represented by the Impressionists' optical realism, to a realism of the psychological process of perception itself. Thus in painting a motif, Cézanne would, by the 1880s, organize his subject according to the separate acts of perception he had experienced; houses and other solid objects were depicted as the artist had conceptualized them after a long series of perceptions. And, in the overall composition of a painting, Cézanne would organize parts of the whole into perceptual areas, within which "distortions" occurred in

the interests of formal contrast and the realization of a visual gestalt of the highest possible unity, as is particularly noticeable in his still lifes.

The art of Cézanne contains yet further complexities, particularly with regard to his use of color; but, when Picasso was studying him in the years between 1906 and 1910, what he found of greatest interest must have been the tentative suggestion of an alternative to Renaissance perspectival space. In Les Demoiselles one finds Cézannian passage linking together foreground and background planes, just as there is a precedent for Picasso's schematic treatment of human anatomy as much in Cézanne's houses and nudes as in the figures of African sculpture. But in using his stylistic means, Picasso went far beyond Cézanne. The grouping of figures in Les Demoiselles exceeds in its arbitrary boldness the most audaciously structured of Cézanne's Bathers compositions; and Picasso combines multiple viewpoints into a single form to a degree that Cézanne, with his heritage of Impressionist fidelity to the visual world, would never have attempted. During the summer of 1906, at Gosol in Spain, Picasso had begun to combine the profile view of a nose with the frontal view of a face, as he did in the two central figures of the Demoiselles: but the figure in the lower right-hand corner of the painting shows a far more radical application of the same idea. In what was probably the last part of the painting to be executed, Picasso created a female nude whose masklike face, back, and breasts are all visible at once; with this figure Picasso dismissed at once both one-point perspective and the classical tradition of figure style.

The role of color in Les Demoiselles is no less significant than the treatment of space, to which it is in fact related. The predominant scheme of the painting is the strong pink and ochre that Picasso had been using during his pink period of the previous two years. But the figure in the upper right-hand corner displays a modeling of the face and breast by means of striations in blue; and where the modeling of the nose would ordinarily be indicated with dark shadowing, Picasso has used bright, alternating bands of fauvelike green and red, the juxtaposition of which creates strong simultaneous contrast. Similarly, in the lower right-hand nude, the schematically reshuffled features are modeled in blue.

These areas represent Picasso's first attempt to devise a workable alternative to the traditional system of modeling by chiaroscuro or its equivalent. Modeling by color is of course not new in itself; it appears in Byzantine art, in much medieval art, in Sienese painting, in many Italian artists of the Quattrocento, in Grünewald and his contemporaries, in

such Mannerists as Rosso, in Rubens and Delacroix, and more recently in Cézanne and the Fauves. But in *Les Demoiselles* Picasso utilizes color modeling in conjunction with his abandonment of one-point perspective, thus freeing himself equally from the single vantage point and from a similarly specified, and therefore accidental, source of light. Here again his only precursor since the Renaissance was Cézanne; and here as in other ways, Picasso, even while following Cézanne's lead, far surpassed him in exploring the radical possibilities of such an idea.⁵

The problem of how to indicate the relation of volumes to each other without the use of chiaroscuro, and at the same time without the total suppression of local color, was not to be resolved until the invention of papier collé in 1912. The importance of Les Demoiselles, however, is that in it Picasso mounted a frontal attack not only on these but on almost all the other problems that were to preoccupy him and Braque for the following six years. Equally fascinating is the diversity of cultural elements that meet in Les Demoiselles, ranging from Cézanne and Fauvism to Iberian sculpture, El Greco, Gauguin, and African art. Les Demoiselles d'Avignon, more than any other painting of its time, was a crossroads of aesthetic forces, which the prodigious gifts of its creator fused, if only imperfectly, into a great work of art and a turning point in the history of Occidental painting.

Picasso was not to attempt so ambitious a work as Les Demoiselles until almost two years had passed. During the remainder of 1907 and the first part of 1908 he further explored the formal and expressive possibilities suggested by African sculpture; then, during the second half of 1908, he returned to another of the elements that had gone into Les Demoiselles with a series of landscapes and still lifes that show a renewed and careful study of Cézanne. These two interests were by no means divorced from each other, and in fact Picasso explored them both more or less concurrently during 1908; this ability to develop two or more ideas simultaneously has remained with Picasso throughout his career.

An event of decisive importance for the future history of Cubism occurred toward the end of 1907, when the poet Apollinaire introduced to his friend Picasso the young painter Georges Braque (1881–1963).6 Braque, who was almost the same age as Picasso, had during the previous two years been one of the leading Fauve painters, but during 1907 he had begun to give a more formal, almost Cézannian, structure to his paintings; now, this meeting with Picasso was to change his art

completely. By the end of 1909 Braque and Picasso were seeing each other almost daily, and this close artistic association, which lasted until World War I, was to become the fountainhead of Cubism.

But when Braque first met Picasso and saw Les Demoiselles, he had had no preparation for the shock that this confrontation must have produced. His first reaction as a painter was the Grand Nu (begun in December 1907⁷ and exhibited in the Salon des Indépendants of 1908). A drawing that must have immediately preceded the Grand Nu gives us a revealing insight into Braque's first response to Les Demoiselles: Braque grasped the tremendous implications of the lower right-hand figure in Picasso's composition, and in his restatement of Picasso's ideas he arrived at the genesis of his own monumental nude. In the Grand Nu we can almost sense Braque's struggle to come to terms with Picasso's thinking, which he must not have understood at all well at first. But Braque did in this painting use Cézannian passage to create a tightly interlocked spatial system in the background; and in the figure itself he followed Picasso's lead in combining several points of view into a single image.

During the summer of 1908, Picasso was painting Cézannian land-scapes and still lifes, first in Paris and later, during August, at La Ruedes-Bois, a small town in the Île de France. At the same time Braque was in southern France near Marseille, at L'Estaque, where Cézanne himself had frequently painted. Braque's landscapes of this summer reveal a much more literal study of Cézanne than does the contemporary work of Picasso. His Houses at L'Estaque (1908; fig. 38) nevertheless demonstrates Braque's sensitive assimilation of the same aspects of Cézanne that interested Picasso; and a comparison with his Grand Nu of a few months earlier shows the progress he had made in this direction. At a much later date Braque said of this crucial moment in his development that at first he had been blinded by the brilliance of Provençal color and light, but that gradually "it was necessary to find something deeper and more lasting." 10

Like Picasso, Braque was learning to stand on Cézanne's shoulders, extracting from his art its structural and nonillusionistic features while discarding Cézanne's lingering interest in observed visual detail. A series of these L'Estaque paintings, when rejected by the jury of the 1908 Salon d'Automne, formed the nucleus of a Braque exhibition in November 1908 at a small gallery in Paris that had been recently opened by a young German, Daniel-Henry Kahnweiler, who was later to become the dealer for all the leading Cubists. In his review of this



38. Georges Braque: Houses at L'Estaque. 1908. Oil on canvas. $28\frac{1}{2}" \times 23\frac{1}{4}"$. Courtesy Kunstmuseum, Bern, Hermann and Margrit Rupf Foundation.

exhibition the critic Louis Vauxcelles used the word *cubes* for the first time in relation to the new style that was emerging.

The rapidity with which Braque advanced along the path of a post-Cézannian art may be seen in a Still Life with Fruit (late 1908), in which a complex system of intersecting planes defines volumes in space in an already proto-Cubist nonillusionistic manner; the debt to Cézanne is still considerable, as in the perspective distortion of the banana in the lower left-hand corner, recalling Cézanne's similar treatment of curving roadways. But Braque had now begun to use chiaroscuro in the decidedly arbitrary way that became a characteristic of his and Picasso's paintings until 1912. Braque's choice of a single, three-dimensional solid as the subject of his painting also became the rule in his and Picasso's work of the following three years. For as the Cubist painter Juan Gris said much later, this early period of Cubism was primarily a matter of the relation between the painter and the objects that he painted, rather than the relations between the objects themselves.

During the winter of 1908/09 Picasso completed his monumental Three Women, on which he had been working intermittently since the spring of 1908. This painting marks the end of a crucial phase in Picasso's early Cubism that began with Les Demoiselles and during which the artist was seeking both new formal and new expressive values. Three Women is really a summation of the previous two years; and historically it bears a symmetrical relation to Les Demoiselles, by comparison with which it is more successful and unified, though less ambitious. In the succeeding five years Picasso devoted himself almost completely to formal problems, to the exclusion of the haunting new states of mind that he had created in Les Demoiselles, Three Women, and many other paintings of 1907 and 1908.

During the summer of 1909 Picasso spent several months in the village of Horta de San Juan in his native Spain. In Paris during the spring of 1909 he had already begun to use large, shaded facets that reduced the human figure to a sculptural assemblage of geometrical solids. At Horta he continued in this direction with a series of land-scapes and in a group of portraits of his mistress, Fernande Olivier. In Houses on a Hill Picasso returned with renewed intensity to a Cézannian style, including Cézanne's high eyepoint. A photograph by Picasso¹¹ of the landscape at Horta shows, however, that he was applying his assimilated knowledge of Cézanne to a quite realistic portrayal of the motif; such paintings in fact were a retreat from the tense ambiguities of spatial structure in the *Three Women* (1908/09). These geometrical simplifica-

tions recall Cézanne's famous remark about the cylinder, the sphere, and the cone; and for one of the few instances in its history one can speak of "cubes" in a Cubist painting. It is not difficult at this point to see why Picasso and his friends appreciated the works of the Douanier Rousseau, whose untrained but extraordinary sensibility also apprehended forms in a schematic, conceptual way, as may be seen in Village Street Scene (1909).

In depicting the houses in his Horta landscapes, however, as well as in his portraits of Fernande Olivier, Picasso continued to combine separate points of view into a single image. But from the standpoint of the future development of Cubism, it is evident from Braque's *Château at La Roche-Guyon*, painted in this same summer of 1909, that he had reached a more advanced position than Picasso in the application of the lessons to be learned from Cézanne.

Before Braque had met him at the end of 1907, Picasso had been alone in his search for a new art; and until 1909 the two of them were without followers. But by 1909 at least one other painter in Paris had begun to draw important conclusions from the study of Cézanne. Fernand Léger (1881-1955) had arrived, in such works as his little-known The Bridge (1909), at a point comparable with that of Braque's L'Estaque paintings of the previous year. But where Braque had shown an instinctive painterly delicacy, Léger's robust personality revealed itself even at this early moment. The Bridge nevertheless shows an understanding of Cézannian passage and its potentialities for creating a new system of indicating space. During 1911, when Cubism had become a widespread movement, this stage of Léger's art would be reflected in the paintings of such newcomers as Le Fauconnier and Gleizes. But in 1909 Léger, and to a lesser extent his friend Robert Delaunay, were the only painters besides Picasso and Braque who were exploring the heritage of Cézanne in a significant and creative way. Léger, who met Picasso toward the end of 1910,12 was shortly to embark on the development of his own version of Cubism, which has qualities in common with the contemporary work of Picasso and Braque. His Nudes in the Forest (1909-191013) does not represent a major advance over The Bridge except that here, for almost the first time, Léger used the cylindrical forms that were by 1913 to become an essential feature of his pictorial vocabulary; as early as the autumn of 1911 Léger was being called not a Cubist but a "tubist." 14 It should be noted that in the Nudes in the Forest, despite superficial appearances to the contrary, Léger created a traditional hollowed-out space, using as in The Bridge a

perspectival diminution of scale and a Cézannian high eyepoint. The same may be said of Picasso's *Houses on a Hill*, although to a much lesser extent. It is not at all accidental that, in order to avoid this traditional illusionistic effect, Picasso and Braque painted very few landscapes after 1910, limiting themselves almost completely to figures and still lifes placed against a nearby flat background and as seen from a relatively close range.

By the end of 1909 Braque and Picasso had become close friends: and in their work they had arrived more or less independently at very similar, though not identical, styles. Braque in fact often originated startling new ideas of his own, as in the Pitcher and Violin (winter 1909/10). Here the faceting of forms has reached a point where the intersecting planes have begun to follow an artistic logic of their own, as much in accordance with the rhythmic structure of the painting as with the necessity of describing the subject. Lighting, or rather the contrast of light and shadow, has now also been completely subordinated to the demands of pictorial structure. As an indication of this new balance between art and reality, Braque painted an illusionistic nail at the top of the painting, as though to indicate by means of the shadow it casts that his canvas is simply a flat, painted surface that is tacked to a wall. This device is an example of the idea, which was becoming current by 1911, of the tableau-objet, the painting as object. By comparison, a still life by Picasso, painted early in 1910, seems to remain an extreme development of Cézannian ideas; for example Picasso still respects the exterior contours of objects, whereas in the Pitcher and Violin Braque did not hesitate to violate the contour of the violin.

Picasso, however, was soon to take the same step, as in his magnificent *Portrait of Ambroise Vollard*, the Parisian dealer who had exhibited him as early as 1901. Begun probably by the end of 1909, this portrait was not finished until late in the spring of 1910; ¹⁵ not only is it an astonishing likeness, but when compared with Cézanne's portrait of Vollard, Picasso's version reveals the distance the artist had traversed since his Cézannian paintings of 1908. Vollard is seated facing us; behind him is a table, on which are a bottle, on his right, and an upended book, on his left. Picasso has even included the handkerchief in Vollard's breast pocket. The whole surface of the painting is a series of small, intersecting planes, any one of which, because of *passage*, may be understood as being both behind *and* in front of other, adjoining planes. Picasso does not hesitate now to violate the contours of forms in the interest of his overall pictorial structure; but within this dense, yet flat

structure he has placed clues that enable the viewer to recognize the subject.

The real subject, however, is not Vollard but the formal language used by the artist to create a highly structured aesthetic object. Obviously it would be incorrect to call this painting an abstraction, since it bears a specific relation to external, visual reality; indeed, the persisting fascination of this and other Analytical Cubist paintings of the following two years is precisely the result of an almost unbearable tension experienced by the viewer. He is delighted by the intellectual and sensuous appeal of an internally consistent pictorial structure, yet he is also tantalized by the unavoidable challenge of interpreting this structure in terms of the known visual world. This exquisite tension between the world of art and the world of perceptual experience persists until the end of 1912. Then, with the invention of collage and papier collé, Cubism enters a stage in which the work of art, though at least as basically realistic as before, is nevertheless far more independent of the visual world than is the Analytical Cubism of 1910.

Another portrait by Picasso, of Wilhelm Uhde, the German critic, connoisseur, and collector of Cubism, is contemporaneous with the Vollard portrait, but it is not quite on the same high level of subtlety and richness of realization. But the Uhde portrait, like that of Vollard, foreshadows an important step taken by Picasso during the summer of 1910, which he spent at the coastal village of Cadaquès in the northeast corner of Spain. There, as Kahnweiler has rightly emphasized, Picasso abandoned the use of faceted, closed forms in favor of planes with long, straight edges that disregarded the contours of objects; now, more than ever before, the subject was linked to the flattened structural continuum of the whole surface of the painting. As a result, the subject became yet more elusively difficult to comprehend than before; the term hermetic has often been applied to the 1910 to 1911 works of Picasso and Braque.

With Picasso at Cadaquès with his friend André Derain (1880–1954), who, like Braque, had previously been a Fauvist. Derain has sometimes been mistakenly associated with Cubism, but, as his view of *Cadaquès* reveals, Derain in 1910 was already the traditional painter he would remain for the rest of his life, strongly influenced by Cézanne yet unable to create a significant style of his own.

Although Picasso's Cadaquès paintings were an important step, they are not the single most crucial moment in the history of Cubism. Rather, at Cadaquès, Picasso shifted the balance between pictorial struc-

ture and the description of the visual world further toward structure, as was already becoming apparent in his Portrait of Vollard. The new emphasis on formal elements is evident in the Portrait of Kahnweiler (autumn 1910). Compared with the Vollard portrait, the subject is less recognizable, although the painting was certainly based on Kahnweiler's appearance. He is shown seated, wearing a watch chain, his hands clasped in his lap; to his right is a bottle and glass. Behind him is a table, and on the wall in the upper left-hand corner of the painting is a wooden sculpture from the French colony of New Caledonia in the Pacific. Picasso owned two pieces of New Caledonian sculpture as early as 1908; they are visible in a photograph of his studio at the Bateau-Lavoir. Indeed, in this portrait Picasso seems to have made a deliberate and witty juxtaposition between his sitter and the Oceanic sculpture, since he made room for it in his composition by placing Kahnweiler's head off center. As at Cadaquès, the planes are no longer bounded by the closed form of the object, but instead they continue freely from one part of the composition to another, giving the effect of being alternately solid and transparent. Chiaroscuro contrast has become equally flexible, now totally divorced from any illusionistic function and used only to indicate the relations between planes. With this new emphasis on structure since Cadaquès, Picasso reduced his palette to browns, grays, and black; but even in 1909 he had largely restricted himself to ochres. By the end of 1910 Braque had similarly limited his palette.

Braque was to follow the same course as Picasso in finally abandoning closed form and concentrating on planar structure. His view of Sacré-Cœur (early summer, 1910) is still quite clearly relatable to the motif. By the end of 1910, however, Braque was painting works in which the original objects are hardly recognizable, as in his Still Life with Decanter and Glass, which was as close as Braque ever came to abstract painting. This still life is also notable for being oval, as were many paintings by him and Picasso after 1910. The oval, or sometimes circular, shape solved the problem of what to do with the corners in a Cubist composition, and it was also another indication that the artist considered his painting to be a real object in itself, more than simply an illusion of the visual world.

During 1910 Léger too had begun to emphasize the two-dimensional relations of formal elements in his paintings, but he followed a method different from that of Picasso and Braque. Léger's approach was to emphasize the contrast between the amorphous, translucent quality of clouds or smoke, and the hard, geometrical structure of houses or of his

tubular figures, as in *The Wedding* (1910–1911), painted as a wedding present for the poet André Salmon. In works such as this Léger achieved a balance between subject and pictorial structure comparable to that in the works of Picasso and Braque of mid-1910; yet unlike them, Léger devised his formal means by a literal adaptation of visual effects in nature, and he also respected the closed contours of objects.

The painter Jean Metzinger (1883–1956) followed Picasso and Braque more closely. His *Nude* (1910) shows a knowledge of Picasso's attempts to abandon closed form, but Metzinger did not apply the idea consistently or with sufficient understanding. The result is a chaotic mixture of Cubism and traditional illusionistic painting. Metzinger was nevertheless the only painter besides Léger whose work in 1910 approached the artistic aims of Braque and Picasso.

Until early 1912 the Cubism of Picasso and Braque remained generally within the confines of their art at the end of 1910, for at that moment the possibilities of the style had suddenly become so rich that almost two years were necessary for their exploration before a further change could take place. Thus the Still Life with Clarinet, painted by Picasso during the summer of 1911 when he and Braque were at Céret in the French Pyrenees, represents a continuation of the stylistic innovations of his Portrait of Kahnweiler, but with one significant change. In this still life are a clarinet, 16 a pipe, a bottle, a musical score, and an opened fan, all on a table top and with each object indicated by means of at least one characteristic or recognizable detail. Such a still life is more ambitious than most of his paintings since the Three Women (1908-1909), because here Picasso has used his by now fully developed Analytical Cubist style to depict not one but many discrete objects, and he has sought furthermore to relate them all to each other, in a non-Cézannian way, as well as to an overall diamond-shaped compositional scheme. The fact that this and other paintings of the same period are extremely difficult to read points to a problem inherent in this stage of Cubism. For while it is suitable for paintings of a single figure or object, which are in the majority at this time, a complex system of interocking, monochromatic planes becomes dangerously obscure when the artist seeks, in Gris's words, to reveal not merely the relation between the object and himself but between the objects themselves. That the artists recognized this problem is evident in the rapid development of its solution with the invention of collage Cubism in 1912. But before that moment they acknowledged the danger of reaching a point of complete

abstraction that would have been the antithesis of the always realistic orientation of Cubism by introducing not only realistic clues but also words, letters, and numbers into their compositions. Braque had begun to do so in the spring of 1911, and Picasso soon followed suit. The effect of this stratagem was to prevent their paintings from appearing to be absolutely flat abstractions, even while they remained objects. For the presence of typographical signs such as letters or numbers, which by nature are only two-dimensional, would by contrast force the composition on which they were superimposed to be understood as a threedimensional image. These words and letters were never chosen arbitrarily but almost always referred to a specific aspect of the objects being portrayed, such as the name of a newspaper. Later this device was to become an essential element in collage Cubism, but a good example of Braque's use of it may be seen in the Still Life with Harp and Violin (early 1912). In addition to a harp in the background there is a still life with a bottle, glass, violin, musical score, and a newspaper (EMPS) of the period, the full name of which was Le Temps. Braque perhaps also intended to make a play on words, by which (T) EMPS would refer both to a newspaper and to a musical beat.

Analytical Cubism reached its zenith in a dozen or more paintings of a single figure by Picasso and Braque, during 1911 and early 1912. Typical of these great paintings is Picasso's Man with Violin (late 1911; fig. 39). The subject is identifiable through realistic clues provided by the artist—an ear, his goatee, buttons on his coat, and the strings and sound holes of a violin. It has proved tempting with such works to speak of the dissection or analysis of masses, and of the combination of multiple points of view, with implications of a "fourth dimension" or of non-Euclidean geometry; many critics have offered such explanations of these works. It is important to remember, however, that by the end of 1911 neither Picasso nor Braque was any longer painting directly from nature. One may legitimately speak of the combination of separate viewpoints in Les Demoiselles d'Avignon, Picasso's figure paintings done at Horta, and other examples of pre-1910, Cézannian Cubism. But by 1911 Cubism was as much an autonomous, internally consistent style with a new formal vocabulary of its own as it was a means for describing the immediately visible world. The unresolvable tension between these two functions in Analytical Cubism is the source both of its greatness as an art and of its misinterpretation by critics.

Therefore, in confronting a painting like the Man with Violin, one must not try to establish an equivalent in the known visible world for

each of its components; the painting presents a man and a violin, it does not represent them. The violinist's head is not simply a summation of different points of view, but the product of an intellectual process by which are superimposed separate planar schemes for the man's head, followed by a process of uniting the resultant forms in order to make a pictorially consistent structure. The Man with Violin in fact presents the viewer with an experience that has ultimately a relation to the visible world but that, like a Renaissance painting, is more directly based on stylistic conventions inherited or, as in Picasso's case, invented by the artist. Instead of experiencing the illusion of masses situated within a space by means of the convention of one-point perspective, the viewer is confronted by a different set of conventions, which in this case produce the effect of flatness but not of spacelessness; for the figure in Picasso's painting has a density and thickness far greater than its surroundings, and yet paradoxically and miraculously this figure projects neither forward nor backward into space. In any given area of this composition the planes may describe an aspect of the subject. But their primary function at the same time is, as in the Still Life with Clarinet, to take part in the nonillusionistic spatial structure of the painting and to contribute to the overall architecture, here pyramidal, of the composition. The problem for the Cubist painter was thus simply a new version of that which faced a Renaissance or Baroque artist when with each brushstroke he had to fulfill simultaneously the requirements of anatomical modeling (or landscape topography) and those of perspective, light, and composition. And, like the great artists of the past, Picasso and Braque worked by intuition, rather than by following rules as their lesser followers unfortunately did.

Nineteen eleven saw the spread of Cubism beyond the circle of Picasso and Braque. The cause of its spread is not easy to explain precisely, but undoubtedly it owed much to such figures as the omniscient and ubiquitous Apollinaire, who had been an intimate friend of Picasso since 1905 and who knew and frequented apparently every advanced artistic milieu in Paris. Metzinger, who knew Picasso by 1910 if not before, must also have been instrumental in the spread of Cubist ideas, particularly through his friendship with Gleizes and with other artists who met at the home of the writer Alexandre Mercereau.

The result of this spread of Cubism became publicly known in the Salon des Indépendants of the spring of 1911 and at the 1911 Salon d'Automne, in both of which the new adherents to Cubism formed a



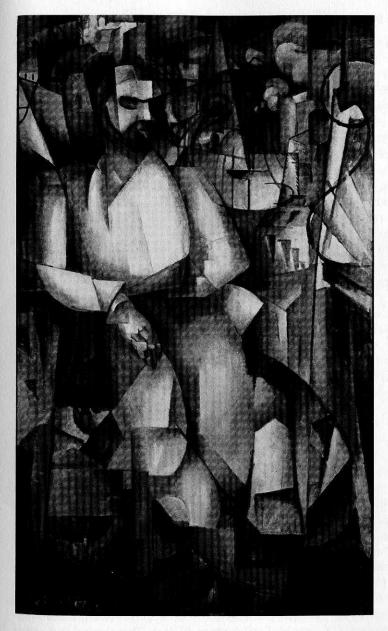
39. Pablo Picasso: Man with Violin. 1911–1912. Oil on canvas. $39" \times 29"$. The Philadelphia Museum of Art, The Louise and Walter Arensberg Collection.

distinct group; during 1911 also the term *Cubism* came into general usage. None of these painters, however—Gleizes, Metzinger, Le Fauconnier, Lhote, and many others—contributed anything new or essential to the Cubism of Picasso and Braque; and few, if any of them, really understood it. Furthermore, it is difficult to believe that these newcomers to Cubism arrived at their art independently of Picasso and Braque, who must in the end be considered the one source from which the new style spread. The art of Delaunay is an exception; although he knew Picasso by 1910, his intentions were never basically Cubist, save in the broadest sense.

Léger's painting, however, was at this time a genuine alternative to the Cubism of Picasso and Braque, as has been discussed above. His Study for the Woman in Blue (1912) is a further development of the contrasts between curves and geometrical solids in The Wedding of the previous year. Now Léger has suppressed illusionistic space, and like Picasso and Braque he has dispensed with closed form in order to create a powerful composition of color planes, related to the subject of the painting but not subordinated to it. But he did not follow Picasso and Braque in their use of arbitrary, grisaille planes, interlocked by passage. Instead he passed directly from the amorphous puffs of smoke or cloud in The Wedding to their formal descendants in the flattened geometrical patterns of The Woman in Blue, thus bypassing some of the problems of hermetic obscurity in Analytical Cubism.

The influence of Léger's formal vocabulary may be seen in Albert Gleizes's (1881–1953) Man on Balcony (1912; fig. 40). But whereas Léger, like Braque and Picasso, had come to avoid motifs with deep space, Gleizes attempts to combine a foreground figure with distant landscape. The result is only superficially a Cubist painting and in fact contains traditional deep space and perspective diminution of scale. In the foreground figure as well Gleizes used traditional chiaroscuro in the modeling of the face and elsewhere, a technique that he was to abandon when he arrived at a truly Cubist style in 1914. The work of Gleizes is characteristic of the rapidly growing number of painters who during the years 1911 to 1914 adopted something of the external substance of Cubism, but little if anything of its essential qualities.

In the spring and summer of 1912 the art of Picasso and Braque underwent a series of crucial changes, which brought to an end one phase of Cubism and inaugurated a second that was to prove even richer in possibilities than the first. By the end of 1911 the two artists had found that the formal language of Analytical Cubism, brilliant though its



40. Albert Gleizes: Man on Balcony (Portrait of Dr. Morinaud). 1912. Oil on canvas. 77" × 45¹/4". The Philadelphia Museum of Art, The Louise and Walter Arensberg Collection.

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aesthetic results had been, was becoming increasingly inadequate to describe the visual world. In addition, the problem of color, which had been almost completely neglected in the works of 1910 and 1911, had yet to be resolved; for the color of objects was as much a part of their visual qualities as was their form. Although a way had been found to depict reality without the use of traditional chiaroscuro and perspective, the artists' fascination with intricate spatial structures during 1910 and 1911 had all but overshadowed the question of color. These very triumphs of form could perhaps have been achieved only at the expense of color, which would have been still another variable in an already dangerously complex artistic equation; now, however, in a few paintings of late 1911 and early 1912, both Picasso and Braque made tentative efforts to reintroduce it.

Also during early 1912 the objects in the paintings of these two artists became somewhat easier to recognize, and in order to make them yet more recognizable Picasso and Braque began to indicate their textures. In the spring of 1912 Braque started to imitate the graining of wood, first by means of conventional brushwork, then by using a house painter's comb. Picasso soon copied this technique but he also applied it to other effects, notably to the simulation of hair, as in The Poet.

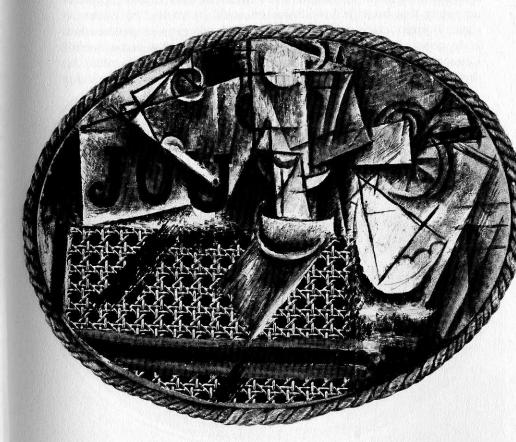
The problem of describing visual reality without resort to illusionism was thus being attacked in various new ways; much the most important step in this direction however was Picasso's incorporation of a ready-made facsimile of an object into a still-life painting, in May 1912.17 His Still Life with Chair Caning (fig. 41) is the first Cubist collage; in a still-life scene at a café, with lemon, oyster, glass, pipe, and newspaper, Picasso glued a piece of oilcloth on which is printed the pattern of woven caning, thus indicating the presence of a chair without the slightest use of traditional methods. For just as the painted letters JOU signify JOURNAL, a section of facsimile caning signifies the whole chair. Later Picasso would go one step further and incorporate into his collages actual objects or fragments of objects, signifying literally themselves.

This strange idea was to transform Cubism and to become the source for much of twentieth-century art. 18 But its immediate usefulness to Cubism was not to emerge until a few months later, when in September 191219 Braque glued strips of artificially wood-grained wallpaper into a Still Life with Fruit Dish and Glass. These strips, indicating the drawer and top of a wooden table, were the first example in Cubism

of the use of pasted paper, or papier collé;20 and with this innovation most of the problems remaining in Cubist art were to be resolved.

Cubism as a Stylistic and Historical Phenomenon

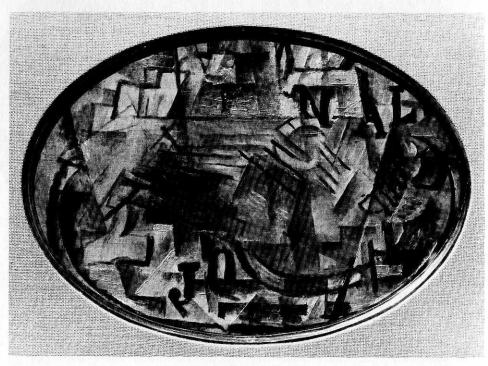
In Braque's first papier collé the strips of paper signify both the color and the texture of an object, while the forms and interrelations of objects are indicated by means of the vocabulary of lines and planes perfected during the previous two years. Since 1910 Braque and Picasso had dispensed with closed form; so now, with papier collé, the strips of pasted paper were not restricted to the contours of the objects they



41. Pablo Picasso: Still Life with Chair Caning. 1912. Oil, pasted oilcloth, and rope. 105/8" × 133/4". Photograph courtesy The Museum of Modern Art, New York, copyright @ 1977 by S.P.A.D.E.M., Paris.

signified. The artist was now free to compose the strips of paper in a papier collé according to a scheme of pattern and color aesthetically independent of all realistic intent, even while these same colored or patterned papers conveyed information about the objects depicted.

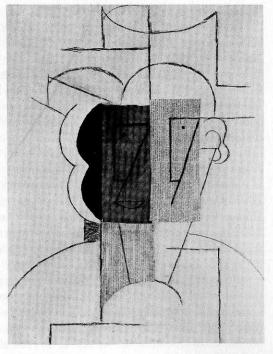
These pieces of pasted paper also eliminated all vestiges of illusionistic space; the papier collé is concretely and absolutely flat. But these paper strips could also, when the artist so desired, express spatial relations directly, by overlapping each other or by their relation to lines drawn over or under them. And, as in 1910 and 1911 Cubism, a spatial ambiguity that itself denied illusionism could be created by means of mutually interlocking strips, overlapping each other in one sequence at a given point of juncture but in a different sequence at a second point. Lines and planes indicating the formal qualities of objects could be drawn across, or separate from, the paper strips, so that both the color



42. Georges Braque: Mandolin and Newspaper. 1911. Oil on canvas. 9½" × 13¾". Courtesy Sidney Janis Gallery, New York.

and the form of an object might be described. The previously existing dilemma of local color versus chiaroscuro was thereby eliminated; and with the discovery of a technique involving neither brushwork nor oil pigment, the Cubist break with previous artistic methods and attitudes was virtually complete.

Both Picasso and Braque had experimented during 1912 with cardboard relief constructions, of which only a few survive; and undoubtedly these constructions, which they continued to make in 1913 and 1914, contributed measurably to the invention of papier collé, as did also very possibly a renewed study of certain types of African sculpture. As soon as Braque had made the first papier collé, he and Picasso proceeded rapidly to develop its enormous potentialities with all the brilliance and subtlety that had gone into the Cubist masterpieces of 1910 and 1911 (see figs. 42, 43). But in contrast to Braque's generally



43. Pablo Picasso: Man with a Hat. December 1912. Charcoal, ink, and pasted paper. 241/2" × 185%". Collection The Museum of Modern Art, New York, Purchase.

more straightforward and often lyrically serene use of the new medium, Picasso discovered in papier collé a means of creating paradox, ambiguity, and wit, as in one of the greatest of all papiers collés, his Still Life with Violin and Fruit (early 1913²¹). Here in one instance Picasso uses newsprint—(IOU)RNAL—in a collagelike way to signify literally a newspaper on a table. Elsewhere in the picture he gives a purely arbitrary significance to the newspaper fragments; in the upper left-hand corner, to indicate fruit in a dish he has pasted printed illustrations of apples and pears above a segment of newsprint, which in this instance signifies the bowl of the fruit dish, while below it an absolutely blank white strip of paper indicates the stand of the fruit dish. Paradoxically, the cutouts of fruit seem to overlap each other, yet physically they do not. The wood-grained papers identify alternately the violin and the table on which it sits; there is also a second white strip, related compositionally to the first, which signifies the unshadowed side of the fingerboard and neck of the violin. At the bottom, a large piece of newspaper functions both as an abstract compositional element and as a sign for the tablecloth; at the lower left a grid of horizontals and verticals adds stability to the otherwise unanchored diagonals above and also indicates the presence of a chair. Superimposed on the newspaper at the right, and at a cocked angle to it, is a second, smaller piece of newspaper, on which in turn is a drawing. The drawing and the small cutout together signify a wineglass, in a highly condensed and conventionalized manner; many formal characteristics of the glass have here been fused, if only tentatively, into a single image. This type of condensed image, when fully perfected, was to play a highly important role in later Cubism. Even the transparency of the wineglass has been indicated by the fact that its paper cutout is at an angle to the larger newsprint fragment, here used literally, beneath it: thus the transparent, refractive quality of the empty glass is emphasized. Finally, as if aware of the extraordinary freedom and inventiveness of his achievement, Picasso has not neglected the witty implications of the newspaper captions: LA VIE SPORTIVE ("the sporting life") and (APP) ARITION! Such wordplay soon became a deliberate component in Cubist collages, especially in those of Gris.

Braque's generally more direct, but no less breathtaking, use of papier collé is well illustrated in his Still Life with Mandolin, Violin and Newspaper (Le Petit Eclaireur) (mid-1913). On the left, a segment of paper cut in a bulging curve stands for the characteristic silhouette of a mandolin; in the center, a square cut from a paper strip indicates its round sound hole, while the hole is repeated in line on the third, vertical

strip. At the right, the violin is suggested by its characteristic outline and by a displaced hint of its own f-shaped sound-hole.

Papier collé inevitably had a powerful effect on the paintings of Picasso and Braque, as may be seen in the latter's *The Violoncello* (1912), where despite the medium of oil paint the appearance is that of superimposed strips of paper. Picasso did not hesitate to combine mediums; his *Still Life with Violin and Guitar* (early 1913) is executed in oil, cloth, and plaster, as well as wood-grained papier collé.

At this point it is well to take a brief look at the course taken by Picasso and Braque since 1910. By early 1910, a temporary balance had been struck between the demands of reality and those of art; this balance was to tip sharply in favor of art after Picasso's Cadaquès paintings and during 1911. During 1912, numerous efforts were made by both Picasso and Braque to redress this balance without sacrificing the innovations in formal vocabulary of the previous two years. This effort culminated in collage and papier collé at the end of 1912. Compared with the hermetic quality of Picasso's Still Life with Clarinet (1911), his Still Life with Violin and Guitar (1913) is far more easily legible, once the viewer understands the new conventions established by collage and papier collé; yet the artist was not forced to make any concessions to the traditional means of illusionism. At the same time, the methods of papier collé gave the artist an almost limitless freedom in formal organization. Thus a new balance was struck in which, almost miraculously, the interests both of reality and of art could be served to the maximum degree, and by means that were completely independent of past artistic traditions.

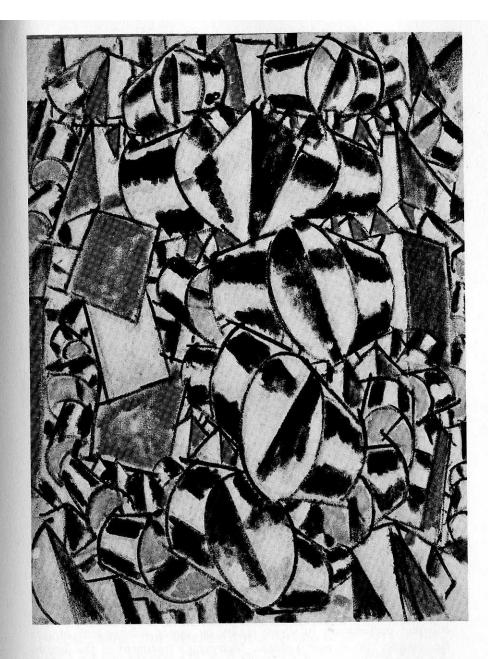
Juan Gris (1887–1927), who had been living in Montmartre near his Spanish compatriot Picasso since 1906, was quick to understand the significance of collage; there were in fact few painters other than Picasso, Braque, and Gris who worked in the new medium, especially before 1914. (Exception must be made, however, for the Italian Carlo Carrà, who was ostensibly a Futurist but whose collages at their best may be compared with those of the Cubists.) Gris began to paint seriously in 1911; he passed rapidly through a Cézannian, "analytical" period and by 1912 was creating an austere, though usually highly coloristic, Cubist style of his own, as distinct from that of Picasso and Braque as was Léger's. His *The Washstand* (Le Lavabo) (1912) is a collage, incorporating a fragment of a mirror in the upper center of the composition. Since his subject called for a mirror at that point, Gris reasoned in his characteristically rigorous fashion that no technique of

painting could give the equivalent of the reflecting qualities of the mirror itself. This painting was shown at the "Section d'Or" exhibition of October 1912; and in this, as well as in many later works, Gris used the golden section, in combination with a modular system, in laying out his composition.²²

Also in the "Section d'Or" exhibition was Metzinger's Portrait of Albert Gleizes (1912). While Metzinger rather naïvely combined separate eyepoints in this painting, he also adopted a brighter color scheme than he had previously used, probably influenced by Gris and the return of color in the papiers collés of Picasso and Braque. Metzinger also imitated the appearance, but not the mathematical precision, of Gris's system of composition by means of the golden section, an indication of the newcomer's early influence on other Cubists.²³

By 1914 Gris had reached a point in his version of Cubism that was without an exact counterpart in the work of Picasso and Braque; his Teacups of that year is especially interesting as an example of Gris's contribution to papier collé. Almost the entire surface of the canvas is covered with pasted paper, laid out according to a strict geometrical system. The pasted paper is in turn covered with a complex Cubist composition drawn on top of it. The references to reality follow a method similar to that of Picasso and Braque, except that Gris maintained the integrity of objects far more than they did, and was more fond of making objects appear transparent. The newspaper fragment inserted in this work is a highly amusing example of wit in Gris's collages, for the twin photographs on the front page are of the pedestal to a statue before and after the passage of a law forbidding the pasting of notices on public buildings; the ironic reference to collage is obvious.

Léger's art by 1913 was neither so complex nor so subtle as that of Picasso and Braque, but its plastic vigor was unexcelled. He made a large number of paintings in 1913 and 1914 that he called Contrasts of Forms (fig. 44). The tubular forms and flat areas in these paintings are a culmination of his work since 1910. By 1914 Léger had developed a theory, based ultimately on his study of Cézanne, by which he thought he could achieve the maximum of pictorial contrast in the largest number of ways: contrasts of color, based not on the scientific investigations-of light by the neo-Impressionists, but on strictly formal considerations; contrasts of straight and curved lines; contrasts of solids with each other and with flat planes. The result was at times completely abstract and had more to do with an almost animistic belief in visual dynamism for its own sake than with Cubism, although usually these Contrasts of



44. Fernand Léger: Contrasts of Forms. 1913. Oil on burlap. 51" × 38". The Philadelphia Museum of Art, The Louise and Walter Arensberg Collection.

Forms had an ostensible subject and were devoid of illusionistic space. After World War I, however, Léger was to pursue his own version of a later Cubist style.

During 1913 and 1914 so many artists in Paris had turned to Cubism that it temporarily became the universal language of avant-garde painting. By means of printed reproductions and of works sent to exhibitions in England, Holland, Germany, Russia, and the United States, Cubism on the eve of World War I was exerting an overwhelming influence on young painters everywhere. In Paris, many artists of little intrinsic talent turned to painting Cubist pictures, which reflected only the slightest understanding of the style. Others, such as Marcoussis, Reth, and even the young Diego Rivera, came closer to the essentials of Cubism.

Another tendency that may be noted in passing was the application of the idea of simultaneity to both painting and literature. Simultaneity was the rather naïve idea, derived from the writings of Apollinaire, Gleizes, Metzinger, and others, and practiced also in the early poetry of Mercereau, that was used in describing the simultaneous presence in a Cubist painting of separate points of view. Since this simultaneity implied movement, and hence time, the "fourth dimension" and non-Euclidean geometry were also frequently cited as justifications.

An interesting though rather literal-minded application of the idea of simultaneity may be seen in the works of Gleizes and Metzinger, and in some of the paintings of Delaunay: at the same time as the artist shows us an object seen from several sides at once, he also brings together objects distant in space and otherwise not visible simultaneously. This tendency, which has been called "epic" Cubism²⁴ because of the often wide-sweeping landscape views either implied or directly presented, is well exemplified by Metzinger's The Blue Bird25 (early 1913). Three female nudes are in various postures, and the blue bird is held by the uppermost figure; in other parts of the composition are numerous birds, grapes in a dish on a table, the striped canopy of a Paris café, the dome of Sacré-Cœur in Montmartre, and a ship at sea. So far as Cubist style is concerned, however, Metzinger's painting has little in common with the art of Picasso and Braque: there is no coherent presentation of visual reality by means independent of the Renaissance illusionistic tradition. Metzinger's treatment of the figures and the spatial composition as a whole are what in fact could only be called sub-Cubist.

With the outbreak of war in 1914 there inevitably came a sharp break in the artistic life not only of Paris but of all Europe. Of the principal Cubists, only Picasso and Gris, being Spaniards, were not mobilized, and it is to the work of these two that one must turn for the final stage of the style. During the latter part of 1913 and in 1914, Picasso had turned temporarily toward expressionistic and decorative concerns in his painting, even while remaining within the limits of Cubism; and during the next ten years he was also to alternate between Cubism itself and a linear, realistic neoclassicism that nevertheless contained Cubist elements. But during the year before war was declared, a new idea was emerging in his work and in that of Braque and Gris, which concerned the creation of signs that would summarize in one form many characteristics of a given object; the wineglass in Picasso's Still Life with Violin and Fruit collage was an early example of this new idea.

It is probable that at this moment African sculpture played a renewed role in Cubism, for, as Maillol later remarked, the Negro sculptors often had the gift of combining "twenty forms into one." African sculpture also presents analogies to the way in which a given material in a Picasso collage may signify itself but elsewhere in the same collage is given arbitrarily a different signification; similarly, in African sculpture a solid may indicate a void, and vice versa, or a concave form may stand for something that in nature is convex.

Signs had played an important role earlier in Cubism, ever since late 1910 or early 1911 when artists ceased to depend on the direct observation of nature. Realistic clues appeared in the hermetic paintings of 1911, and the words that Picasso and Braque put in their works were literally signs for newspapers or other printed material; Braque also used words for their associative meanings, as with the word BAR or the names of drinks in café still lifes, or musical terms and even names of composers in pictures containing musical instruments. In collages, either an object literally signified itself, or a portion of an object, such as the fragment of a newspaper title, signified the whole. Now the sign was to assume a more central role in Cubism.

The Man Leaning on a Table, a masterpiece of 1916, is a summation of Picasso's prewar art, but it also contains the germ of later or Synthetic Cubism. The pointillist dots of his decorative, 1913 to 1914 détente are still present; but so is his mastery in organizing spatially interlocked planes, accumulated with the experience of the previous five years. The large size of the planes is an outgrowth of papier collé, which