

Pan Alley" learns to make use of mathematics in the grinding out of popular ballads, the pleasing qualities, as well as the originality, of the song of the moment may be increased.

"From the formal point of view, Western music stands pre-eminent by virtue of its purity and its extraordinary degree of development. In poetry there are formal elements which can be isolated and analyzed. But in poetry the meaning is of such dominant importance and so completely eludes formal analysis, that the field of poetry is not pure in the same sense. Similarly it is obvious that other aesthetic fields are inferior to music, either in purity, or else in degree of development as in the case of polygonal form. For, in the case of music, we have a succession of musical sounds, characterized by pitch and time, replete with relationships and devoid of obvious connotations. Furthermore this music has a deep and almost universal appeal."

Paintings, sculpture, and architecture, also have their own order in arrangement—order not only of design but of color as well. Dr. Birkhoff says:

"The 'complexity' of paintings is usually so considerable that they are analogous to ornamental patterns whose constituent ornaments must be appreciated one by one. However, it is decidedly interesting to remark in this connection how a fine composition is always arranged so as to be easily comprehensible."

To illustrate what he meant Dr. Birkhoff showed how, in any work of art, imaginary lines can be drawn across from point to point, following the principal lines of the composition. You will then see that the composition is made up of more or less well defined and entirely comprehensible geometric forms. The light and dark shades are also applied in such a way that they follow a certain order or plan.

#### Center of Interest

"There should be a natural primary center of interest in the painting and also suitable secondary centers," Dr. Birkhoff explained. "Such a primary center of interest is often taken in the central vertical line of the painting or at least near to it. The elements of order are of course taken to be the same as in the three-dimensional object represented. Finally there are the connotative elements which play a decisive part; a good painting requires a suitable subject just as much as a poem requires a poetical idea.

"The color spectrum, upon which the elements of order involving color necessarily depend, is not without interesting analogy to the gamut of musical tones. The simpler the palette is, the less will be the complexity, so that the palette should be as restricted as the subject permits. Evidently the eye appreciates the repetition of a color, a graded sequence of colors, and a balance of colors or of light and dark values about the centers of interest. All these elements of order are of definite aesthetic importance."

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A German scientist succeeded in baking a loaf of bread like ancient Egyptian specimens which had deep hollows in the center, the hollows being presumably used as bowls to hold food eaten in the bread.

#### PSYCHOLOGY

## Repeat Again and Again the Name You Want to Remember

DO YOU easily forget the name of a person after you are introduced to him? The secret of avoiding this embarrassing fault lies in "overlearning" the name by frequent repetitions, Dr. Samuel W. Fernberger, professor of psychology at the University of Pennsylvania, said in a radio address.

"Many years ago I knew a gentleman who was noted for his ability to remember names—a characteristic which was of great value in his life as a politician," Dr. Fernberger said. "He quite frankly told me how he did it. It turned out that he did not have an exceptionally good memory at all. But he frankly and quite consciously set out to overlearn the name of anyone whom he might meet.

"When introduced to Mr. Smith, he did not merely say, 'I am glad to meet you,' but he would say, 'I am glad to meet you, Mr. Smith.' And then he would say, 'And now, Mr. Smith, what did you come to see me about?' 'No, I do not believe that I can help you there, Mr. Smith.' And so on, so that, within a few minutes conversation he had repeated the name ten or a dozen times. It was this repetition—this overlearning—which enabled him to remem-

#### ARCHAEOLOGY

## Wheat Found in Clay From New Stone Age Hut

FRAGMENTS of clay that once went into the building of a New Stone Age hut, accidentally baked into a brick-like consistency by a chance fire, have preserved for thousands of years evidence that the neolithic farmers grew a species of wheat similar to that cultivated in the earliest fields of Egypt and Mesopotamia. Prof. Fritz Netolitzky, a Rumanian scientist, identified the plant remains after soaking the clay fragments in water and patiently picking them to pieces.

Prof. Netolitzky tells of his discovery in a report to the German scientific journal, *Forschungen und Fortschritte*. The investigation was carried on at the Wallraf-Richartz Museum, Cologne.

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ber the name, not the fact that he possessed an exceptional memory.

"One reason why there is so much forgotten is because you have not sufficiently overlearned what you want to remember. How frequently does the school child say, when he has once succeeded in spelling a word correctly, 'Well, I have that,' and then turns to something else. And if the school child stops at this point, one may expect that 40 per cent. will be forgotten by the end of 20 minutes and 75 per cent. forgotten at the end of a week."

Forming a great many interesting associations between the new idea or the new person and other ideas is another great aid to memory, Dr. Fernberger indicated.

"Be you young or be you old, if you want to remember something, repeat it over and over again, adding as many different associated ideas as you can even after you are sure that you know it," Dr. Fernberger concluded. "In this way you will probably not improve your memory but you will certainly be able to retain and to recall things ever so much better, which after all, is what is important in the practical situation."

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