

can be presented in such form as to interest the more thoughtful and enlightened class of people. Needless to say, the aim of popular articles should be educational and should contain no suggestion of propaganda. Under certain conditions more can be done by personal contact than by writing. We should welcome every opportunity to explain our work to those who exhibit an interest in it. Above all, we should let it be known that we have definite objectives, and as far as possible point out what the attainment of these objectives will accomplish. It thus becomes the duty of research not only to discover new facts but also to disseminate and impress them upon the public conscience, for it is only when the public understands the value of research that it will be accorded the place it should occupy in our national life.

G. A. PEARSON

SOUTHWESTERN FOREST EXPERIMENT  
STATION,  
U. S. FOREST SERVICE

### A SUGGESTION FOR ABSTRACTS OF ANTHROPOLOGICAL LITERATURE

THE informing idea of abstracts is that, as cut-shorts, they indicate the important knowledge printed in a specific article about a certain subject. By their perusal the reader may quickly know whether or not he desires to read the original article. An abstract is simply a short, impersonal analysis of a longer printed original. It does not criticize or comment.

Abstracts are of two main kinds: One is the so-called *author's abstract*; the other may be called the *collaborator's abstract*.

The author's abstract is prepared by the author. It may have two designations—depending on whether it appears with the article abstracted, or appears separately. The former is a "preliminary abstract"—being a short digest of the longer article which immediately follows it in the same volume. When the author's abstract appears separately it may be designated a "lifted abstract"—which, elsewhere, was a preliminary abstract but which has now been lifted from the place of its first printing and appears unaccompanied by the article of which it is the abstract.

The second of the main kinds of abstracts, the collaborator's abstract, is prepared by a collaborator and not by the author. It is unaccompanied by the original article. In other words, the collaborator's abstract is never a preliminary abstract; it is more nearly akin to the lifted abstract.

Both the author's abstracts and the collaborator's abstracts may have been, and probably ought to have been, under the blue pencil of an expert editor, but

the work of the editor as such does not give name to the abstract.

#### NEED FOR ABSTRACTS

The need for abstracting the literature in a scientific field is inevitable at a certain advanced stage in the increasing amount of the published data in that field. No one who teaches a full-time schedule can read all he desires to read, or ought to read, in any live scientific field to-day. His available time is insufficient. All of us habitually lay aside for vacation reading certain excellent articles or books which come to our libraries in the busiest periods of the university year.

If we agree that this is the condition in anthropology, what is to be done in an attempt to meet the situation? We must note, in passing, that we are not going to publish fewer articles in anthropology, simply because constantly we are publishing more—as all other growing sciences are doing. There are two reasonable answers to our question: *One*, we can, of course, read our customary amount and "forget" the increasing amount which, like the waters, will go over us if we sit still. This, as we grow old, all of us may increasingly do; but it is an extremely difficult thing for a vital American thus to sit still and let the waters go over him. *Two*, we can get some one else to read for us much of the increasing volume of printed matter.

A few of the most productive American scholars have possessed private funds, or other sources equally as rare to American university professors, which have enabled them for years at a time to multiply, as it were, their brains, pens and typewriters, and they have thus been able to accumulate for personal use a vast fund of information. Thus a secretary and a staff of readers read virtually everything, excerpting or abstracting those parts which it is believed their employer desires. This glimpses the plutocratic stage of abstracting, possible for only a few men.

#### PRESENT STATUS OF ABSTRACTING IN UNITED STATES

To-day the democratic stage of abstracting has dawned in a few fields for the use of all workers in those subjects. I quote the advertisement of a new abstract service to show how democratic and how inexpensive this service is in the field of sociology:

The new abstract service offered by the American Sociological Society will provide subscribers with galley proof of the 100 abstracts each issue, 600 a year appearing in the *American Journal of Sociology*, of articles from the leading social-science periodicals in English, French, German, Italian, Scandinavian, and Spanish.

This service is to cost each subscribing member of the society one dollar per year. The following, ac-

cording to the advertisement, is what the member will receive for one dollar—non-members are to pay two dollars for the same service:

(1) Galley proof of these abstracts will be mailed before the publication date of each issue of the journal.

(2) The thin galley proof paper is adapted to satisfactory mounting on 3x5 cards. Any other form of abstract service, as by cards or slips, was found prohibitive in cost.

(3) The classification number at the end of each abstract will be found particularly helpful.

What else is for sale to-day in the American market which one can buy six for one cent? Again, we have an illustration of the cheapness in commodity production of those things democracy will buy many of, if the price is low enough. In other words, the democratic stage of abstracting is here—for a few natural and social sciences.

A partial, though nearly complete, list of scientific journals published in America which regularly carry preliminary abstracts with each of their articles would probably not exceed thirty. Among those journals best known to anthropologists are the following: *American Anatomical Memoirs*; *American Journal of Anatomy*; *Anatomical Record*.

If we step aside into the sociological field, and look at current numbers of the *American Journal of Sociology*, we see the best type of abstracting in any field near our own. I mean by the expression "best type" that each issue has both the preliminary abstract before each article it publishes, and also the lifted abstracts from other periodicals; and, in addition, and more important, it has also collaborator's abstracts of all noteworthy articles appearing in America and in Europe within the social-science field. These abstracts are also all printed in English, whereas abstracts printed by some other journals in America are lifted bodily and appear in the original language. However, the individual abstracts in the above periodical are not always of the best, largely because of the newness of abstract writing. But the objective has been visioned and the effort to reach it will undoubtedly bear better fruit in the near future when a standard has been set and accepted for the best type of scientific abstracts.

#### STATUS OF ABSTRACTS IN ANTHROPOLOGICAL JOURNALS<sup>1</sup>

Types of abstracts					Name of Periodical
Preliminary.	Lifted	Bibliography	Review		
				No abstracts	Akademija umiejtnosci, Cracow. Materyaly antropologiczno-archeologiczne i et-

#### STATUS OF ABSTRACTS IN ANTHROPOLOGICAL JOURNALS<sup>1</sup>

Types of Abstracts					Name of Periodical
Preliminary.	Lifted	Bibliography	Review		
					nograficzne. irr.
					American Anthropological Association. Memoirs. Lancaster, Pa. irr.
					American Anthropologist. Lancaster, Pa. q.
					American Journal of Physical Anthropology. Washington, D. C.
					American Museum of Natural History. Anthropological papers. New York. irr.
					Annals of Archaeology and Anthropology. Liverpool. q.
					Anthropological Society of Bombay. Journal. Bombay. irr.
					Anthropologie—Published by the Anthropological Institute, Charles University of Prague. (In Czecho-Slovakia.)
					L'Anthropologie. Paris. bi-m.
					Anthropologische Gesellschaft in Wien. Mitteilungen. Wien. bi-m.
					Anthropologischer Verein in Schleswig-Holstein. Mitteilungen. Kiel. irr.
					Anthropos. Internationale Zeitschrift für Völker- und Sprachenkunde. bi-a.
					Archiv für Anthropologie. Braunschweig. irr.
					Archiv für Kriminal-Anthropologie und Kriminalistik. Leipzig. irr.
					Archiv für Rassen- und Gesellschafts-Biologie. Munich.
					Archives d'anthropologie criminelle. Lyon. m.
					Archives suisses d'anthropologie générale. Genève. irr.
					Archivio di antropologia criminale. Torino. bi-m.
					Archivio per l'antropologia e la etnologia. Firenze. 4 nos. a year.

probably be of this type—preceding instruction in preparation of a better type. Thus 40 per cent. of the data in the original article is unknown to the reader who has access to only the partial abstract.

The third type is the *complete abstract*. It carries 100 per cent. of the data or entities of the original article. The complete abstract prepared to meet definite standards occupies between 4 per cent. and 5 per cent. of the space of the original article—as scientific articles are now commonly printed. However, a complete abstract does away entirely with the need of a summary at the close of the original article. So, if articles are written with the certainty that they are to be abstracted, they no longer need to carry summaries. Therefore, the printing of a complete preliminary abstract, in addition to the original article, minus its usual summary, need add very little, if any, to the space required for printing the original article with its customary summary.

The standard Dr. Schramm sets for complete abstracts is that every entity appearing in the original article will appear, in its proper sequence, in the complete abstract, and that it will appear in at least one complete sentence; frequently it will have more than one sentence. Some one has urged that only new data should appear in the abstract, but this is not enough. Each entity in the original, whether or not new, must appear in the abstract, if it is to be complete.

Further, the standard, scientific complete abstract thus will carry every entity that should go into the index. In other words, the indexer may, and would, prepare his index entries directly from the abstract by the process, as it were, of abstracting the abstract. Thus, the index entries will show the very quintessence of the original article without consumption by the indexer of the much longer time consumed in digesting the longer original article.

#### ADVANTAGES TO THE INDIVIDUAL OF COMPLETE ABSTRACTS

(1) They greatly add to our equipment of scientific knowledge by giving us a digest of many more articles than we can possibly read in the longer original.

(2) They save us much time which is now more or less wasted in reading original articles of no great importance to us, but whose titles suggest contents of real value to us.

(3) They save us considerable money, by cutting down our subscription list of those periodicals about which we debate at each time of annual subscription.

(4) They save us library space in book shelves, and filing cabinets for periodicals, separates and fugitive articles.

(5) They probably will assist most of us in tending to develop a technique, even habits, of more logical analysis in our writings, and greater clearness in our presentations. On the certainty that we or collaborators must abstract the article, more logic will almost necessarily go into its preparation.

(6) They will save greatly in editorial work in the preparation of index entries for the volumes composed of the several current periodicals with abstracted articles.

ALBERT ERNEST JENKS,  
*Chairman, Division of  
Anthropology and Psychology*

THE NATIONAL RESEARCH COUNCIL

### SCIENTIFIC EVENTS

#### RESEARCH BUREAU OF METALLURGY AT THE CARNEGIE INSTITUTE OF TECHNOLOGY

As a further step in the plan to expand its scientific research facilities, announcement is made by the Carnegie Institute of Technology in Pittsburgh of the establishment of a special Research Bureau of Metallurgy to begin its work the first of September, 1924. The object of the new department is to apply to metallurgical questions the recent discoveries in the field of physics and chemistry. The organizing of this new bureau is the second important development concerning metallurgical research that has been reported during the year at the Pittsburgh institution. The first step, as was previously announced, was the adoption of a definite program of investigations in metallurgy to be made by the department of metallurgy at the institute in cooperation with the U. S. Bureau of Mines. Several college graduates have already been appointed to fellowships by the institute authorities to carry out the program of research problems, the investigators to have the financial aid and assistance of an advisory board of metallurgical engineers and steel manufacturers of Pittsburgh in addition to the cooperation of the Bureau of Mines. The new research bureau of metallurgy just organized will be a department established separately from the research investigations carried out by the department of metallurgical and mining engineering in cooperation with the Bureau of Mines. Dr. Francis M. Walters, Jr., has been appointed director and Dr. Vsevolod N. Krivobok has been appointed as an assistant. The appointment of another assistant, a specialist in X-ray work, will be made during the summer months.

As director of the bureau, Dr. Walters will also have the title of professor of experimental physics.

STATUS OF ABSTRACTS IN ANTHROPOLOGICAL JOURNALS<sup>1</sup>

Types of Abstracts					Name of Periodical
Preliminary.	Lifted	Bibliography	Review		
				No abstracts	Beiträge zur Anthropologie und Urgeschichte Bayerns. München. q.
				No abstracts	Columbia University Contributions to Anthropology. New York. irr.
				No abstracts	Field Museum of Natural History. Publications: Anthropological series. Chicago. irr.
			x		International Journal of American Linguistics. New York City.
				No abstracts	Institut français d'anthropologie. Comptes rendus des séances. Paris. irr.
			x		Journal of Negro History. Washington, D. C.
			x		Journal of Race Development. Worcester, Mass. q.
		x			Königliches zoologisches und anthropologisch-ethnographisches Museum zu Dresden. Abhandlungen und Berichte. Leipzig. irr.
		x	x		Man. London. m.
			x		Niederlausitzer Mitteilungen. Guben. irr.
					Philippine Islands—Bureau of Science. Philippine Journal of Science. Section D: General biology, ethnology and anthropology. Manila. bi-m.
			x		Politisch - anthropologische Monatsschrift. Berlin. m.
				x	Revue anthropologique. Paris. m.
					Rivista di antropologia. Roma. 3 nos. a year.
x(summary)x			x		Royal Anthropological Institute of Great Britain and Ireland. Journal. London. bi-y.
		x	x		Russki anthropologicheskii zhurnal. Moscow. q.
		x	x		Société d'anthropologie de Lyon. Bulletin. Lyon. y.

STATUS OF ABSTRACTS IN ANTHROPOLOGICAL JOURNALS<sup>1</sup>

Types of Abstracts					Name of Periodical
Preliminary	Lifted	Bibliography	Review		
		x			Société d'anthropologie de Paris. Bulletins et mémoires. Paris. bi-m.
		x			Société dauphinoise d'ethnologie et d'anthropologie. Bulletin. Grenoble. q.
			x		University of Pennsylvania-Museum. Anthropological publications. Philadelphia. irr.
			x		Ymer. Stockholm. q.
		x			Zeitschrift für Ethnologie. Berlin. bi-m.

## THREE TYPES OF GENUINE ABSTRACTS VARYING IN RELATIVE COMPLETENESS

The simplest type of abstract is the *title abstract*. Dr. J. R. Schramm, executive secretary of the division of biology and agriculture, National Research Council, has recently analyzed abstracts of all three types. In an unpublished paper he concludes that title abstracts present roughly 40 per cent. of the data appearing in the original article. Title abstracts are simply customary bibliographical entries. Those appended to research articles published in scientific periodicals illustrate this type; but data in original articles to the extent of 60 per cent. are unknown to the person who reads only title abstracts of articles.

The second type is the *partial abstract*. It carries, roughly, about 60 per cent. of the data appearing in the original article. Abstracts prepared today by most authors of anthropological papers would

<sup>1</sup> Under this heading everything has been listed which suggests the contents of a definite article. Even with all this generosity the showing is poor, indeed. "Bibliography" covers only title abstracts. A "Review" today is often not an abstract at all. Too often reviews are only smart remarks which the publication gave the reviewer occasion to utter.

The check mark (x), preceding the name of each periodical, designates the type of so-called abstract appearing more or less regularly in that periodical.

The list of periodicals includes only those available in one or the other of the following libraries: Surgeon General's Office and Bureau of American Ethnology in Washington, D. C., and N. Y. Public Library in New York City.