

## Introduction

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It is my pleasure, as Head of the Commission of the Association of Polish Geomorphologists 'Sedimentological Methods used in Geomorphology' and as Guest Editor of this special issue of *Geologos*, to introduce a selection of papers presented at a meeting on grain-size analysis and its significance for palaeo-environmental interpretation. The meeting was held on May 18, 2009 at the Faculty of Geography and Regional Studies of the University of Warsaw. The objectives of the meeting were the exchange of ideas, experiences and problems concerning the interpretation of grain-size analyses, and the development of a common approach for the application of this analysis to the reconstruction of the dynamics in depositional palaeo-environments.

Grain-size analysis is considered by some earth scientists as a first step if transport and depositional processes must be interpreted, whereas other researchers consider it even as the ultimate analysis for such a purpose. It cannot be denied, however, that linking the granulometry to sedimentary structures and to the transportation mode yields severe problems.

It is therefore not surprising that not less than forty-three participants attended the meeting, where fifteen lectures were presented. The most interesting ones have been worked out

to the contributions in this special issue. They represent a wide range of problems, ranging from application of the planimetry method to the grain-size analysis of coarse-grained sediments, to the comparability of the results from grain-size analyses obtained by different methods or processed with different computer techniques. During the discussions, questions were dealt with about a wide variety of topics such as the possibility to determine a depositional environment on the basis of the granulometry of Quaternary deposits by means of cumulative curves at a probability scale and on the basis of frequency curves. Particular attention was paid in this context – and in some of the contributions to this special issue – to the statistical parameters (mean grain size, standard deviation, skewness and kurtosis), proposed by Folk & Ward (1957). Finally, it is shown in another contribution that the median grain size can be used for the calculation of the slopes of fossil sand-bed braided rivers.

### Reference

- Folk, R.A. & Ward, W.C., 1957. Brazos river bar: a study in the significance of grain size parameters. *Journal of Sedimentary Petrology* 27, 3–26.