The highest achievement of linguistic geography is a production of linguistic atlases. Scientific linguistic chart, with all of its necessary accompanying elements, allows a possibility to track geographical prevalence of any given linguistic event. This is so because the gathered material, used in a chart creation, came from a number of settlements based on pre-composed questionnaire. Linguistic atlases represent “the central instrument” of the contemporary dialectology. Following an assessment of atlases significance, this paper presents multi-decade long work of the Academy department for dialectology atlases, SASA (founded in 1959 under the name of Yugoslav Committee for dialectology atlases) and the three projects undertaken during the course of years (European linguistic atlas- ALE, Slavic linguistic atlas- OLA and Carpathian dialectological atlas- OKDA), as well as the national project named Serbian dialectological atlas- SDA (earlier Serbo-Croatian dialectological atlas). The paper assesses the most important work phases (production of linguistic charts). Finally, the paper presents a structure of a linguistic atlas, based on the example of one volume phonetic series from OLA.

**Key words:**
linguistic geography, linguistic atlas, linguistic chart, network of points, Academy department for dialectology atlases, SASA