Using historical data in fluvial geomorphology (Grabowski & Gurnell 2016) [1]

This chapter addresses the range of sources that can be used to investigate changes in fluvial geomorphology; including documentary evidence, cartographic sources, topographic surveys and remotely sensed data. Documentary evidence serves two primary roles in the historical analysis of channel and catchment characteristics. The first is to extend analyses back in time prior to the collection of systematic survey data. The second is to corroborate observations or measurements from other sources or to serve as a temporal or spatial benchmark with which to gauge river change.

The chapter then focuses on maps and the planimetric data that they can provide for historical fluvial geomorphological analyses. Topologic surveys have produced two kinds of data that are of particular use in the geomorphological study of river channels: cross-sectional and long profile surveys. Finally, the chapter introduces remote sensing and highlights its role in historical analysis using recent examples from the literature.

Keywords: cartographic record; documentary evidence; fluvial geomorphology; remotely sensed data; river channels; topographic record

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[1] https://reformrivers.eu/using-historical-data-fluvial-geomorphology-grabowski-gurnell-2016
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