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## The Use of Surveying and Photogrammetric Court Evidence in the Usucaption Procedures for Proving the Acquisition of the Ownership of Real Estate

**Abstract:** Fulfilling the required prerequisites for acquisitive prescription (usucaption) such as uninterrupted possession and the lapse of time results in the acquisition of ownership. Both, in the stage of examining the case in respect of fulfilling the prerequisites for acquisitive prescription as well as in the stage of adjudicating in court proceedings, contemporary and archive surveying and photogrammetric evidence plays a vital role. There are situations when the so-called “acquisitive prescription map”, prepared by a licensed land surveyor, showing the area being the subject of the petition and the state of cadastral boundaries as of the day of acquiring the ownership right, is necessary. The aim of this paper is the analysis of the applicability of present and archival aerial photos, maps, especially cadastral orthophotomaps and other documents gathered in the state geodetic and cartographic resource as a proof of holding an immovable, justifying the data of acquiring the right by acquisitive prescription and showing the scope of possession. In fact, the combined analysis of all the above-mentioned evidence accessible for a given area gives complete information about a property being in its entirety or in part a matter of proceedings for ascertaining the acquisition of the ownership of a real property by acquisitive prescription. Moreover, this publication describes some of the problems encountered in the professional practice of court experts during preparation of acquisitive prescription maps.

**Keywords:** usucaption, maps for legal purposes, photogrammetric evidence, state geodetic and cartographic resource, cadastral orthophotomap

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## 1. Introduction

Acquisitive prescription constitutes one of the manners of acquiring the ownership of a property and is aimed at removing discrepancies between the legal status and the facts of a case. In practice, it is the simplest way to regulate the legal status and to obtain the title to ownership of a real property by its possessor [1]. As a result of acquisitive prescription, a person who has been holding a real property acquires the right to it and an authorized person loses this right [2]. In order to acquire the right, it is necessary to fulfil the required prerequisites for acquisitive prescription, such as uninterrupted possession and a certain lapse of time. A real property holder acquires the right as of the end of last day of the period provided for in Article 172 of the Act of 23 April 1964 – the Polish Civil Code [3], i.e. after twenty years of uninterrupted possession of a real property in the case of acting in good faith or thirty years in bad faith. If during the running of acquisitive prescription, a transfer of possession took place, the present possessor can add the time of possession of his predecessor to the time for which he possesses a real property.

Acquisitive prescription cases are examined by district courts of proper venue in non-litigious proceedings. Any party concerned may submit a petition for the ascertainment of the acquisitive prescription of a real property. In the case of state and local government real properties it is an obligation following from the Real Property Management Act [4]. As a rule, the State Treasury or local government unit may acquire a real property by acquisitive prescription only in bad faith.

## 2. Surveying and Photogrammetric Evidence in Proving Acquisitive Prescriptions

Pursuant to § 155 of the Resolution of the Minister of Justice of 23 December 2015 [5] laying down rules concerning the operation of the common courts, a real property should be described in a decision ascertaining the acquisitive prescription of the ownership of a property in accordance with the rules stipulated in the provisions on keeping the mortgage register. As data concerning the designation of properties is entered in the mortgage register on the basis of an extract of the cadastral map and a record from the cadastral register, the documents are enclosed with a petition for ascertainment of the acquisition of the ownership of a real property by acquisitive prescription. If a property has an established mortgage register (KW) or an old mortgage register number (LWH), possesses an administrative decision Land Title Act (AWZ – akt własności ziemi) or a set of documents and the entire real property is a subject of acquisition, it is sufficient to describe the real property according to the number of the mortgage register or the number of files. Sometimes, prepared by a licensed land surveyor, a map (the so-called “acquisitive prescription map”) is necessary for legal purposes, especially when the subject of an acquisitive

prescription does not encompass the entire parcel of record. It is necessary to prepare it, among other cases, when a part of a parcel is the subject of proceedings. It is required, then, to subdivide the parcel.

When preparing an acquisitive prescription map, one can use data included, among other things, in the documents of the state geodetic and cartographic resource, mortgage registers, geodetic and cartographic documents stored in the state archives, documents being in the possession of the parties being the result of a field survey, as well as photogrammetric evidence such as aerial photos and orthophotomaps. The currently binding Regulation of the Minister of Interior and Administration of 9 November 2011 concerning technical standards of performing a geodetic topographic and height survey as well as compiling and conveying the survey results to the state geodetic and cartographic resource [6] specifies the contents of an acquisitive prescription map. It includes the boundary lines of parcels referred to in the petition in connection with the boundaries of adjacent parcels, parcel numbers, borders of land in use and soil quality class borders together with their designation according to the local plan, a map description and topographic details of high significance for the compilation of survey results, i.e. The current factual circumstances can be verified by means of a photogrammetric survey or a field survey. The map should indicate the location of boundaries as of the day of the acquisition of the right (Fig. 1).

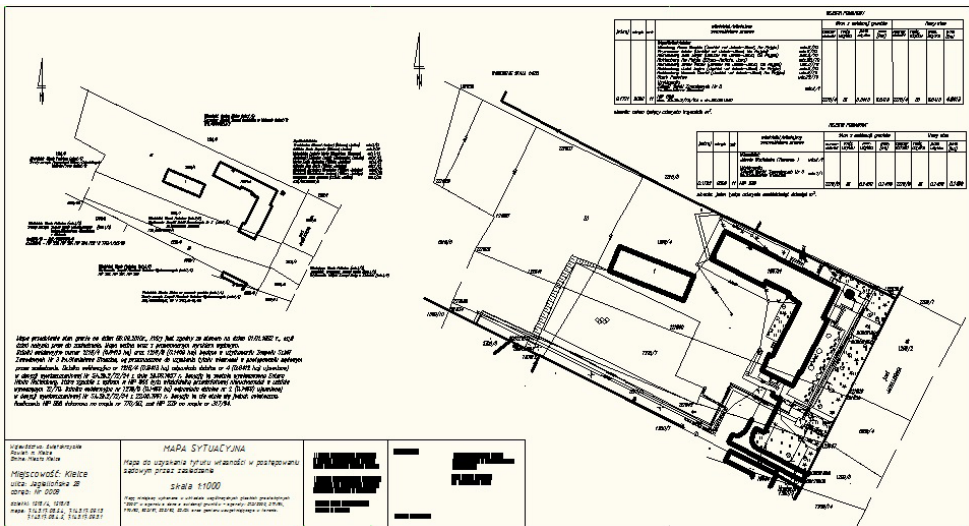


Fig. 1. A sample of acquisitive prescription map

Often, after the occurrence of changes in the location of boundaries over the years, it is necessary to reconstruct the location of boundary markers and boundary lines on the basis of archive documents. Knowledge of the formerly binding legal

and technical standards of performing cadastral surveys turns out to be indispensable, since in many cases the surveyor makes an appropriate synchronization in order to determine which current cadastral parcel corresponds to the former plot disclosed in the cadastral land register [7]. Frequently, the location of boundaries from many years ago or even from the post-war period is examined. One can take as an example the cases of acquiring the ownership of a real property by virtue of the French Civil Code (the Napoleonic Code) which was in effect until 31 December 1946 on the Polish central territories. Acquisition by acquisitive prescription was possible in the case of continuous, uninterrupted, quiet, open, unambiguous possession after twenty (or ten) years in good faith and thirty years – in bad faith.

Reconstructing the location of boundaries as on the day of the right acquisition, a land surveyor needs to examine documents gathered in the state geodetic and cartographic resource. The data contained in the cadastral land and buildings register database used to be collected by different methods and at different periods, so the database can contain data of different quality [8]. It is worth mentioning that when the register in Poland was established by virtue of the decree on land and buildings registration of 2 February 1955 [9], only 34% of the country's land area was measured using direct surveying methods [10]. For 23% of the country's area, photogrammetric technologies producing photomaps or processed aerial photographs were used for measurements of the boundaries assumed in accordance with factual possessing in the field. Survey outlines (Fig. 2), constituting copies of the cadastral map with a geodetic control network established to interpret aerial photographs and with surveying data concerning parcel boundaries, were also prepared. The photomap (Fig. 2), on which the boundaries of possession were read in accordance with the actual state on the ground, often represents the source of information on the course of the boundaries [11].

a)



b)



Fig. 2. A fragment of a photomap (a); a fragment of a survey outline of 1967 (b)

Source: State Archive in Kielce

It turns out that in many cases the reliable reconstruction of quantitative and qualitative information concerning a given area or an object from many years before is only possible on the basis of archive imaging data, in particular where traditional surveying methods based on fragmentary technical documentation fail [12]. In fact, the use of images acquired in the past (through the so-called “archival” or “historical” photogrammetry) allows comparisons and multi-temporal analysis to be made, supported by metric data [13].

Acquisition of the right by acquisitive prescription must be confirmed by evidence whose force and credibility are assessed by the court. In accordance with the Polish Code of Civil Procedure, facts of vital significance for the resolution of the case constitute evidence and the duty of the parties is to indicate them in determining the facts. Proving possession and its scope is a fundamental issue. In the field, boundaries are identified through fences, walls, boundary stones, boundary markers, walls of buildings, edges of the road, riverbanks, etc. They very often constitute the content of the base map as well as archival aerial photographs, photomaps and orthophotomaps. Photogrammetric materials may present valuable evidence confirming the scope of possession of agricultural lands through the analysis of the scope of crops, baulks, etc. and prove its continuity. Figure 3 presents a cadastral orthophotomap with a cadastral overlay constituting a proof of fulfilling a prerequisite for possession (usage).



**Fig. 3.** A fragment of cadastral orthophotomap for the area of the plot no. 1218/4

Source: Geoportal Kielce ([www.gis.kielce.eu](http://www.gis.kielce.eu))

The first orthophotomaps for civil purposes were prepared in Poland in the early 1970s (AGH University of Science and Technology in Krakow), thus over 40 years ago. A cadastral orthophotomap is a photographic map based on aerial or satellite

photographs and compiled with a cadastral overlay. It also constitutes very useful and convincing evidence in court cases not only thanks to the possibility of measuring but also due to the possibility of photointerpretation [14]. It enables specialists in different areas to locate any constructions, infrastructure and flora easily by giving a full picture of the land surface without the selection of contents [15]. Photogrammetry, as a passive sensing technology, has its limitations such as light dependence and the requirement for image texture [12], but, to the court order, it is possible to prepare cadastral orthophotomaps on the basis of old archive aerial photographs or to do a needful survey on a spatial photogrammetric model in the digital photogrammetric and remote sensing workstation. Such materials are admitted by courts as reliable and clear evidence in cases.

The court verdict should also include the date of the acquisition of the right. Therefore, it depends on the collected evidence when the running of acquisitive prescription began. It is the moment of manifesting the will of possession equivalent to the moment of fencing the parcel, starting the construction of the house or another structure, etc. The contents of reports presenting registration data – among other things, the land registration, data referring to the holder contained in survey registers, reports of ascertainment and announcement of possession, boundary reports prepared while establishing or modernizing the land and buildings registration, constitute a proof of holding an immovable but also the grounds for the date of the right of acquisition by acquisitive prescription.

### 3. Problems Encountered in Professional Practice

The experimental studies covered twenty-three cases concerning usucaption. The surveying outcome materials, the source materials on which the documentation was based, and, in some cases, also the court case files were analyzed. The studies showed that the contractor of the work – a qualified land surveyor who makes a map for acquisitive prescription – may encounter a number of difficulties at various stages of the implementation of the work. Due to their multiplicity, attention was paid in this publication to only two situations requiring detailed analysis. The difficulties usually relate to the stage of the reconstruction of borders as on the date of acquiring the right, as well as the determination of the date of acquiring the right.

The reconstruction of boundaries is an important task, as they are an element of the definition of the right of ownership, limiting the area in which the owner can benefit from their rights. Below, in Figure 4 a case is presented in which the people possessing plot no 256/3, present on the ground during the process of the determination of the course of the boundaries of the property being the subject of usucaption, stated that since the acquisition of the property in 1984, the course of the boundary of the acquired plot had changed significantly due to changes in the adjacent river bed. The surveying area of the plot no. 256/3 (0.1398 ha) differed from the area of the land acquired on the

basis of an informal agreement – 0.2 ha. In the present case, the materials collected in the state survey and cartographical resources indicated that the last measurements of the river coastline in the analyzed area were made in 1991 and such a course of the border was shown in the cadastral record no. 24/91 and subsequently in the survey record no. 41/2014, which constituted the basis of the boundaries of the real estate for the purpose of the prepared map for usucaption. As already mentioned, the purchase of the property by means of an informal purchase took place in the analyzed case on May 20, 1984 (the beginning of the term needed to acquire the right by usucaption). Thus, both in case of finding that the usucaption occurred in good faith on 21 May 2004, and possibly even in case it occurred in bad faith – 21 May 2014, the border with the river (according to the survey record no 24/91, 41/2014) recorded in cadastre was probably consistent with the location of the border on the day of the title to the land being acquired by usucaption. The field survey, performed to prepare the map for the court proceedings, did not show any further changes in the shoreline. However, if the acquisition occurred on another date, there would appear a situation where it would be difficult to identify and prove the extent of the possession of the land from the river side on the day of acquisition of the right of ownership. According to Article 17 of the Water Law Act of 18 July 2001 [16], in the event that inland flowing water permanently occupies land not owned by the owner of the water in a natural way, the land becomes the property of the owner of the water. The rule is that land covered by flowing water is owned by the State Treasury, and is thus the property of the Treasury. In the case of the permanent seizure of the adjacent land by the flowing water, the acquisition of the covered land by the State Treasury would take place, and thus the land previously possessed by the possessors, would not be subject to usucaption, as the prerequisites concerning the continuity of possession and flow of time would not be fulfilled.

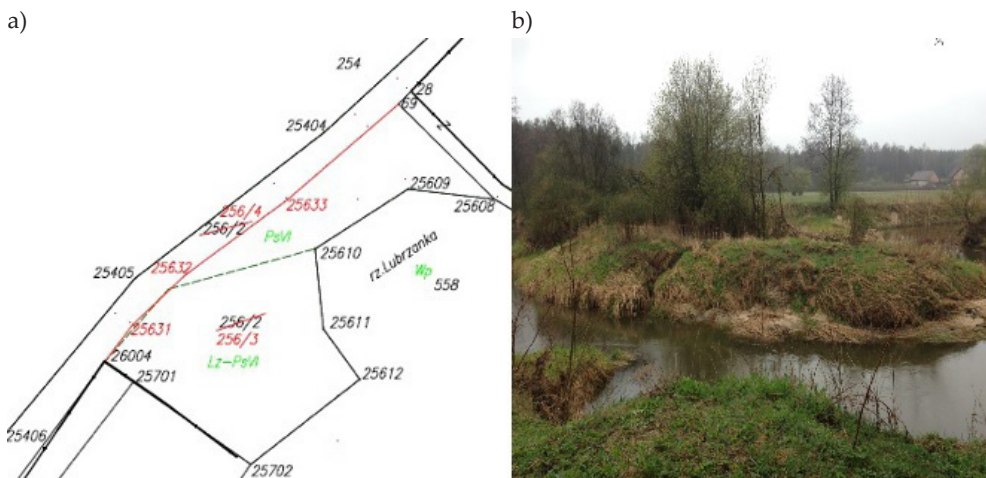


Fig. 4. Plot no. 256/3, being the subject of the court proceedings concerning usucaption (a); view of the riverbed – plot no. 558 (b)

Frequently, it is problematic to interpret the access of a property to a public road. An example is the case presented in Figure 5, where the subject matter of the study was the preparation of an acquisitive prescription map for plot 201 showing the location of borders as of the 13 September 1983. The ambiguity aroused the issue of the interpretation of the scope of possession, in particular concerning the lane of land between the existing permanent fences in the southern part of the parcel next to the public road. According to the data collected in cadastre, the above-mentioned 1.5 m wide strip of land was situated within the parcel no. 201, while the remaining 1.5 m wide strip of land – within the parcel no. 200, constituting the subject of possession of the person ruling the neighboring plot. Both, in the depth of the property – plot no. 200 and no. 201 outhouses were located to which access was provided by the analyzed part of land and there was no other possibility of access to them. The interested parties stated that the lane was the object of co-possession (of the applicant and the neighboring property possessor). As the possession of the property was not within the cadastral boundaries, the court decided that the subdivision of the plot no. 201 had to be performed and that the ownership of the part of the above-mentioned plot adjacent to the road was subject to acquisition both by the applicant and the possessor of the neighboring plot.

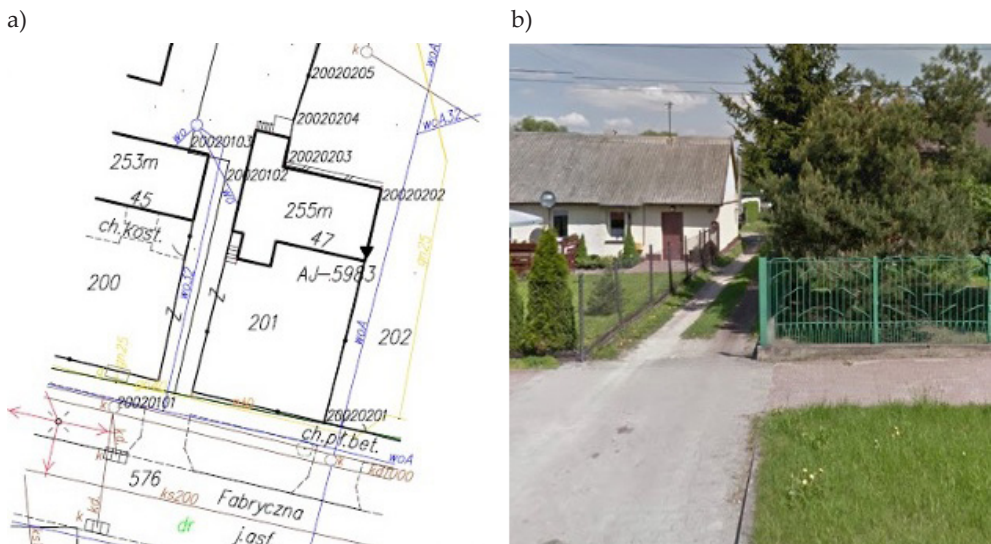


Fig. 5. Plot no. 201, being the subject of court proceedings concerning usucaption (a); view of the access of the property to the public road (b)

#### 4. Summary

Documents from the state survey and cartographical resources play an important role at the stage of examining the case with respect to fulfilling the prerequisites



for acquisitive prescription and when adjudicating. They may prove the date of the acquisition of the right by acquisitive prescription and verify the scope of possession. In the practice of a contractor of such work - a qualified land surveyor who prepares a map for usucaption - a number of difficulties may be encountered, concerning in particular the reconstruction of the state of the boundaries on the day of the acquisition of the right, the interpretation of the accessibility of the property to public roads or the determination of the date of acquisition. In general, each case should be analyzed individually and the combined analysis of all the materials accessible for a given area gives complete information about a real property in its entirety or in part a matter of proceedings for ascertaining the acquisition of the ownership of a real property by usucaption.

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## Wykorzystanie materiałów geodezyjnych i fotogrametrycznych w dowodzeniu nabycia prawa własności przez zasiedzenie

**Streszczenie:** Spełnienie wymaganych przesłanek zasiedzenia, jakimi są: nieprzerwane posiadanie oraz upływ czasu, skutkuje nabyciem prawa własności. Zarówno na etapie rozpoznawania sprawy pod kątem spełnienia przesłanek zasiedzenia, jak i orzekania istotną rolę odgrywają współczesne i archiwalne materiały geodezyjne oraz fotogrametryczne. Na potrzeby niektórych postępowań sądowych niezbędna jest, sporządzona przez uprawnionego geodetę, tzw. mapa

do zasiedzenia, zawierająca w swej treści obszar objęty posiadaniem, a będący przedmiotem wniosku, wskazująca stan granic na dzień nabycia prawa. Celem niniejszej publikacji jest analiza przydatności archiwalnych zdjęć lotniczych, map i innych dokumentów zgromadzonych w państwowym zasobie geodezyjnym i kartograficznym jako dowodów świadczących o okoliczności władania nieruchomością, uzasadniających datę nabycia prawa przez zasiedzenie oraz obrazujących zasięg posiadania. W rzeczywistości łączna analiza wszystkich dostępnych materiałów dotyczących przedmiotowego obszaru daje kompletną informację na temat nieruchomości będącej w całości lub w części przedmiotem postępowania o stwierdzenie nabycia własności nieruchomości przez zasiedzenie. W publikacji opisane zostały ponadto wybrane problemy napotykane w praktyce sporządzania map do zasiedzenia.

**Słowa**

**kluczowe:** zasiedzenie, mapy do celów prawnych, materiały fotogrametryczne, państwowy zasób geodezyjny i kartograficzny, ortofotomapa