

# **The Cadastre in South Tyrol/Alto Adige – History and Practical Examples**

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**Key words:** Cadastre, History, Openkat, Examples, FIG, paper

## **SUMMARY**

The history of the cadastre in South Tyrol/Alto Adige is very closely connected to the history of Europe. In 1852, when the cadastre started, South Tyrol/Alto Adige and the Trentino were part of the Austrian Danube monarchy. At the same time in the kingdom of Italy 25 different cadastres existed. In 1871 a commission was introduced in order to unify these cadastres. With the fundamental law n. 3682, dated 1<sup>st</sup> of March 1886, a unified parcel-cadastre was officially introduced in Italy. In 1919, after the First World War, South Tyrol/Alto Adige and the Trentino were annexed to the kingdom of Italy, which decided to maintain the former Austrian cadastre in the new territories. Today, with the introduction of the software Pregeo and Docfa and the network of fiducial points the Cadastre in Italy is unique. The directory of the Cadastre today is task of the Autonomous Province Bolzano-Bozen, South Tyrol-Alto Adige. Plans of division can be presented in Italian, German or bilingual. South Tyrol with his three ethnical groups, at the connection-line between two cultures, the Italian and the German, has an autonomy, which can be seen as a model in Europe.

## **ZUSAMMENFASSUNG**

Die Geschichte des Katasters in Südtirol ist eng mit der Geschichte Europas verbunden. Als 1852 die Arbeiten für ein Kataster begonnen wurden, gehörten Südtirol und das Trentino zu Tirol und beide Provinzen waren Teil der österreichischen Donaumonarchie. Zum gleichen Zeitraum existierten im Königreich Italien 25 unterschiedliche Katasterformen. 1871 wurde eine Kommission eingeführt über diese Kataster mit dem Ziel diese zu vereinheitlichen. Mit einem Grundgesetz Nr. 3682 vom 1. März 1886 wurde dann in Italien offiziell ein einheitlicher Parzellarkataster eingeführt. Nach dem ersten Weltkrieg 1919 kamen Südtirol und das Trentino zum Königreich Italien, welches beschloß in den neuen Territorien den bis dahin geltenden österreichischen Kataster beizubehalten. Heutzutage ist in Italien durch die Einführung der Programme Pregeo und Docfa, und dem Netz der Vertrauenspunkte (punti fiduciali) ein einheitlicher Kataster entstanden. Die Führung des Katasters obliegt heute der Autonomen Provinz Bozen-Südtirol. Die Teilungspläne können von den Technikern auf italienisch, deutsch oder auf Wunsch zweisprachig vorgelegt werden. Südtirol mit seinen drei Volksgruppen am Bindeglied von zwei Kulturen, der Italienischen und der Deutschen, genießt eine Autonomie, welche in Europa als vorbildlich gelten kann.

# The Cadastre in South Tyrol/Alto Adige – History and Practical Examples

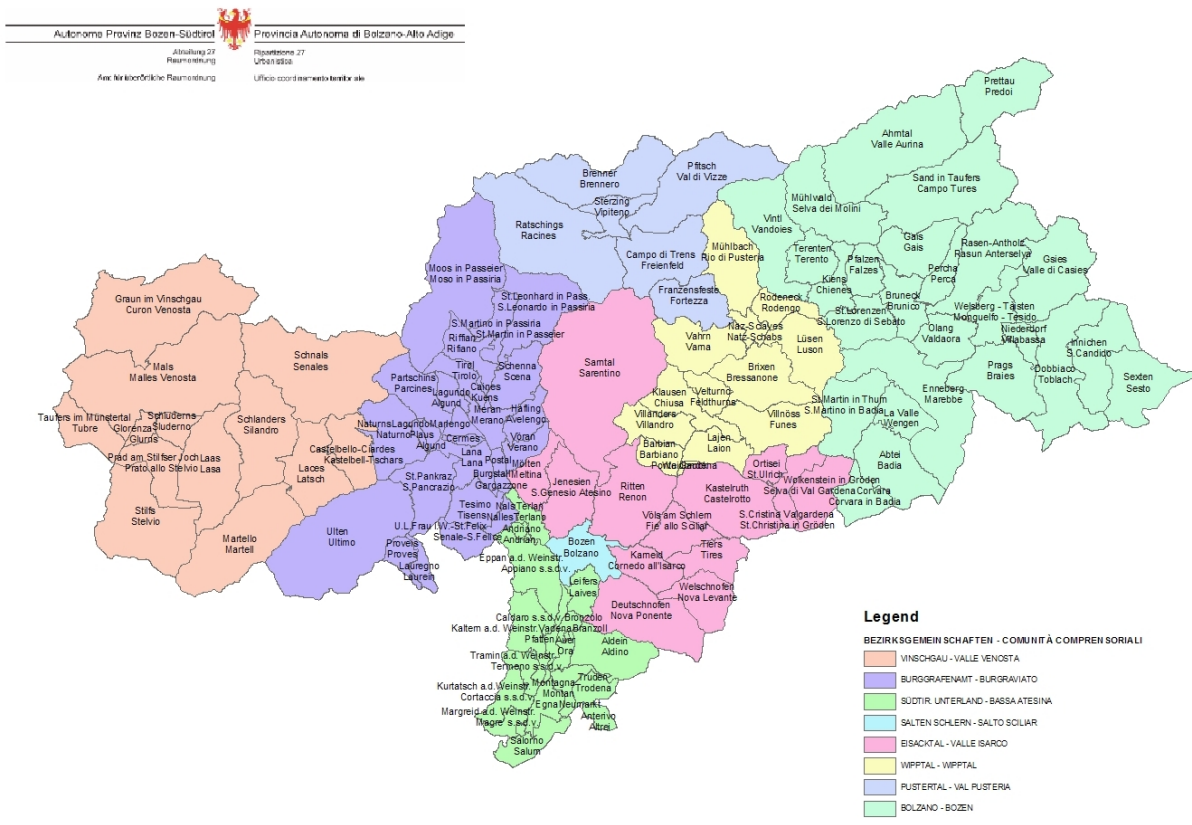
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## 1. IN GENERAL

South Tyrol/Alto Adige or the Autonomous Province of Bolzano-Bozen is located in the heart of the Alps, in the most northern part of Italy (Figure 1). Together with the Trentino, or Autonomous Province of Trento, both provinces form the ARTS - Autonomous Region of Trentino-South Tyrol/Alto Adige, which is one of the 20 regions in which Italy is divided. Until 1918 South Tyrol/Alto Adige and the Trentino were a part of Tyrol, a region of the Austrian Empire. After the First World War, at the peace-treaty of Saint-Germain (2) on the 10<sup>th</sup> of September in 1919, the Austrian Region Tyrol was divided at the watershed of the Alps; the southern part came to Italy while the northern part remained with Austria. Today the relationship between Italy and Austria is excellent.



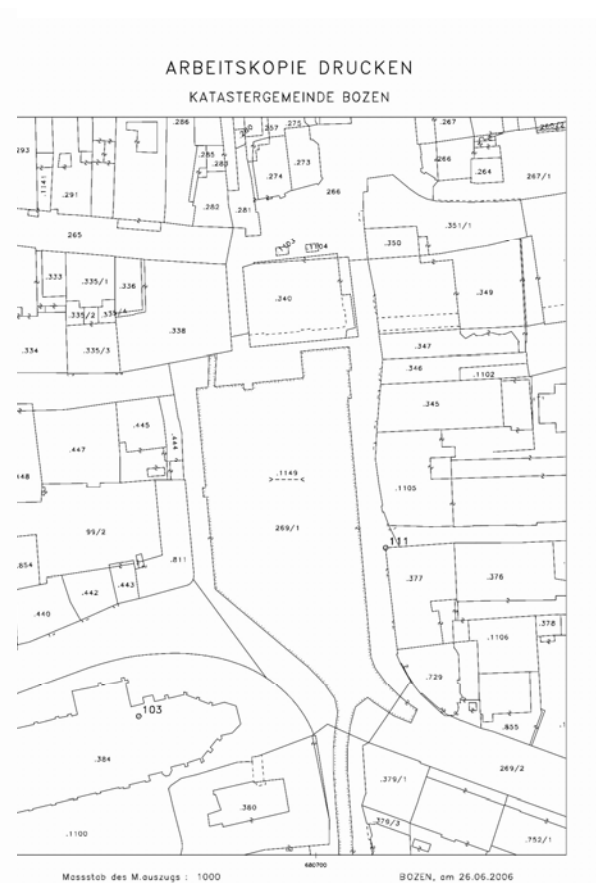
**Figure 1.** South Tyrol/Alto Adige - ITALY



**Figure 2.** Districts and communities of South Tyrol/Alto Adige



**Figure 3.** Historic map of Bolzano/Bozen - 1858



**Figure 4.** Cadastral map of Bolzano/Bozen - 2006

## 2. HISTORY OF THE CADASTRE.

In 1918, in the “Terre redente” (liberated territories) approximately 4,75 % of the Italian territory (28.690.966 ha), the cadastre was still the Austrian Cadastre set up by the order of emperor Francis I of Austria in 1817 (3). In 1923 with R.D. (Royal Decree) 148 dated 11<sup>th</sup> of January 1923 in all annexed territories in Italy the Austrian taxation laws were maintained. The Italian laws concerning the taxation of buildings and the conservation of the cadastre were introduced in the annexed territories with R.D. 825 dated 22<sup>nd</sup> of May 1924. With R.D. 499 from 28<sup>th</sup> of March 1929 the Austrian regulations concerning the Land Register and the Cadastre were also temporarily maintained. In 1932, with circular letter No. 9016 of the Italian Ministry of Finance dated 13<sup>th</sup> of October, signed by the Director General of the Italian Cadastre Grandi, it was decided to definitively adopt the former Austrian Cadastre in the new Territories, following the ex-Austrian legislation laws dated 23<sup>rd</sup> of May 1883, B.L.I. n.83, and Ministerial Order dated 11<sup>th</sup> of June 1883, B.L.I. n.91, because of the Land Register System, which did not exist in Italy. This System has the goal to keep records of rights of possession open to the public. The situation is different concerning the Italian Building Cadastre introduced in all parts of Italy with R.D. 652 and law No. 1249 on the 11<sup>th</sup> of August 1939. By the first autonomy statute, according to the constitutional law No. 5 from 26<sup>th</sup> of February 1948 the ARTS received primary legislative and administrative powers in the

administration of the Land Register. The real Cadastre still remained in charge of the national administration. By DPR 569 (decree of the president of the republic), from 31<sup>st</sup> of July 1978, the ARTS was empowered to coordinate the Cadastre with the Land Register. Because of the separation of the Cadastre (state) from the Land Register (ARTS), in 1948 both of the services developed independent of each other and often chose separate ways. For more than 20 years now both of the services have been led by the ARTS, and the regional committee made full use of its legislative competence in order to reach the best possible coordination. From the 1<sup>st</sup> of August 2004, due to the legislative decree n.280 from 18<sup>th</sup> of May 2001, the competences for the Cadastre and Land Register in South Tyrol/Alto Adige, held before by the ARTS, passed directly to the Autonomous Provinces of Bolzano-Bozen and Trento. So from this date on, the Section V Land Title Register and Cadastre, the Inspectorate for the Land Register, the Inspectorate of the Cadastre, the Office for Geodetic Measurements and all the offices for the Cadastre and the Land Register in South Tyrol/Alto Adige, or Autonomous province of Bolzano-Bozen, are administered by the Department of Agriculture, Informatics, Cadastre, and Land Register held by assessor Hans Berger of the provincial government.

### 3. REALISATION OF THE CADASTRE

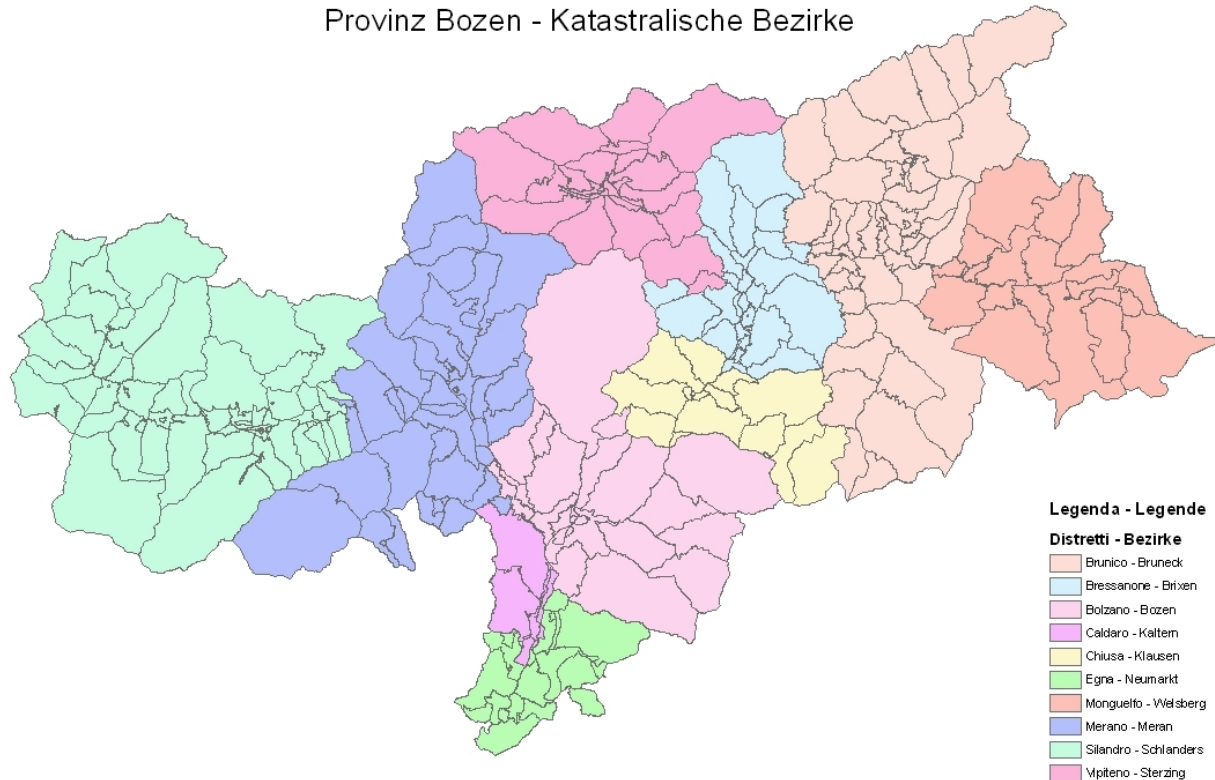
In historic Tyrol, consisting nowadays of the two Italian provinces Bolzano-Bozen and Trento and the Austrian state Tyrol, the triangulation tasks were accomplished by the imperial and royal military geographic engineering corps of the Austrian Empire between 1851 and 1855. These tasks were completed between 1852 and 1858 by the trigonometrists of the Triangulation and Calculation Office of the Cadastral Surveying Bureau. The starting point, origin of the cadastral survey was the southern tower of the Saint Jacob church in Innsbruck (Figure 5) (1), with the geographic coordinates longitude 29° 03' 39,57" and latitude 47° 16' 11,27", east from the Island of Hierro (Spain). The baseline of the cadastral triangulation is formed by the triangle side from the coordinate's origin to Säulenberg with approximately 10 km length. After having completed the triangulation, whenever there were no church steeples, the stabilisation of the triangulation-points was established between 1859 and 1862. Then the detailed survey was performed in every community by plane-table survey (Figure 3).



**Figure 5.** Church of Saint Jacob



Provincia di Bolzano - Distretti catastali  
Provinz Bozen - Katastralische Bezirke



**Figure 7.** Cadastral districts in South Tyrol/Alto Adige

#### **4. THE CADASTRE TODAY IN SOUTH TYROL/ALTO ADIGE (STAA)**

Same as in other parts of Italy, in South Tyrol/Alto Adige, or Autonomous Province of Bolzano-Bozen, the Cadastre is divided into two sections, the Land Cadastre (Catasto Terreni) and the Building Cadastre (Catasto Edilizio Urbano). The 10 cadastral districts of STAA (Figure 7) administer 246 cadastral communities with 4555 digitalized cadastral maps (Fig.4),

UFFICIO CATASTO	N. COMUNI CATASTALI	superficie mq.	n. mappe	n. particelle fondiari	n. frazionamenti	n. particelle edificiali	n. UIU
BOLZANO	20	1.055.227.318	632	78.295	1.036	27.281	147.074
BRESSANONE	27	469.204.240	325	36.816	378	9.026	31.189
BRUNICO	44	1.241.468.462	736	74.056	789	18.794	46.545
CALDARO	3	121.137.883	96	18.655	257	5.745	20.013
CHIUUSA	15	374.430.064	292	32.365	412	9.287	24.535
EGNA	17	254.637.755	199	29.821	305	7.938	21.985
MERANO	36	1.072.872.875	650	82.464	860	26.267	91.367
MONGUELFO	18	719.801.781	415	42.277	368	8.469	19.749
SILANDRO	47	1.441.393.745	839	68.641	603	15.353	28.058
VIPITENO	19	650.000.544	371	30.102	262	6.863	15.272
<b>T O T A L I</b>	<b>246</b>	<b>7.400.174.667</b>	<b>4.555</b>	<b>493.492</b>	<b>5.270</b>	<b>135.023</b>	<b>445.787</b>

**Table 1.** Catastral Districts in South Tyrol/Alto Adige

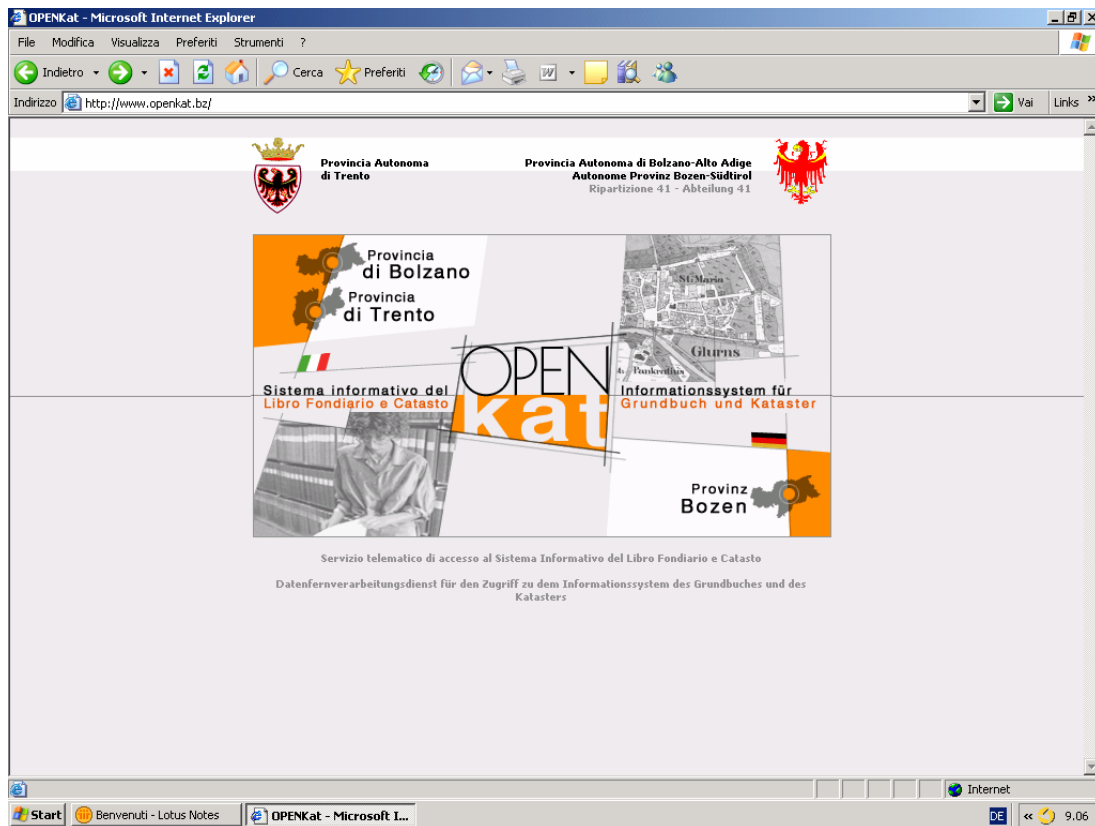
containing more than 493.000 land parcels and 135.000 building parcels with a surface of about 7.400 sqkm. (Tab.1). In South Tyrol/Alto Adige the PREGEO-System, software for cadastral purposes, created by order of the Ministry of Finance, was introduced in 1996. For building cadastral purposes the software DOCFA is used and both programs are continually developed.

## 5. PRACTICAL EXAMPLES AND OPEN KAT

With the introduction of PREGEO in South Tyrol a network of survey points called “punti fiduciali” was created and measured with GPS by the Geodetic Division of the Cadastral Service. Coordinates and heights of these points are available on the website of the Province on the internet. The distances between the single PF-points measure from 250 to 300 metres in built-up areas, in other areas about 500 metres. Who can do cadastral tasks in Italy, for example divide ground parcels, create building parcels, and present the DOCFA documentation to introduce new buildings or the changes of existing buildings at the cadastral offices? Due to the DPR 650 dated 26<sup>th</sup> of October 1972 every registered freelancer like an engineer, an architect, an agronomist, a surveyor, a building technician etc. can sign a division plan and present it to the cadastral offices. In the Region of ARTS an Information System for Land Register and Cadastre called OPENKAT (Figure 8) was introduced in June 2001 (4). With Openkat it is possible to catch all data related to ground and building parcels and see all documents with properties, related rights, land titles, also for tax purposes. Every community in South Tyrol is connected via internet with Openkat and can use it free of charge for their institutional purposes. It is also possible for Notaries, Economists, Technicians, and others to be connected with Openkat. The annual fee today is 90 Euro/Year for a single connection



with one password and with more passwords 540 Euro/Year. With Openkat it is also possible to see/print all the data of the Ground Cadastre (catasto terreni), Building Cadastre (catasto fabbricati), the Land Register (Grundbuch-Tavolare), but extra costs will be charged.



**Figure 8.** OPENkat – Information System for Land Register and Cadastre in the ARTS

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AUTONOME PROVINZ BOZEN-SÜDTIROL PROVINCIA AUTONOMA DI BOLZANO-ALTO ADIGE  
Mod. - Formbl.F

<b>UFFICIO CATASTO</b> SILANDRO	<b>KATASTERAMT</b> SCHLANDERS	<b>TIPO DI FRAZIONAMENTO</b>	<b>TEILUNGSPLAN</b>	<b>Nr.</b> 814/2005
<b>COMUNE CATASTALE</b> LA MADONNA	<b>KATASTRALGEMEINDE</b> UNSER FRAU	Presentato per l'approvazione il 03 NOV. 2005	Zur Genehmigung vorgelegt am 03 NOV. 2005	Copie rilasciate An gefertigte Kopien Nr.
Il presente tipo è stato eseguito dal sottoscritto in base a rilievi topografici, in conformità alle disposizioni di cui alla L.R. 13.11.1985, No. 6 e relativi regolamenti di esecuzione.		Si attesta la conformità del presente tipo alle norme di cui alla L.R. 13.11.1985, No. 6 e relativi regolamenti di esecuzione.		Introdotta in via provvisoria dal Tecnico Catastale
Dass der Teilungsplan wurde vom Unterfertigten aufgrund topographischer Messungen unter Beachtung des RG 13.11.1985, Nr. 6 und der dazugehörigen Durchführungsverordnungen erstellt.		Es wird bestätigt, daß dieser Teilungsplan den Vorschriften des RG 13.11.1985, Nr. 6 und der dazugehörigen Durchführungsverordnungen entspricht.		Vom Katasterbeamten vorläufig eingetragen
NATURS	il/asm 24.10.2005	INEFFICACE DAL	18 NOV. 2007	Esente da tributi speciali Legge N. 231 del 15.5.1954 Sondergebührenfrei Gesetz 228 vom 15.5.1954
G. M. JOHANN MARTIN Catastrofischer Techniker No. 447		UNVERKEMM BAR Il Direttore (Der Direktor) 1450		Esente da bollo Legge N. 1149 del 27.11.1987 Stempelgebührenfrei Gesetz 1149 vom 27.11.1987 Imposta di bollo Stempelgebühr

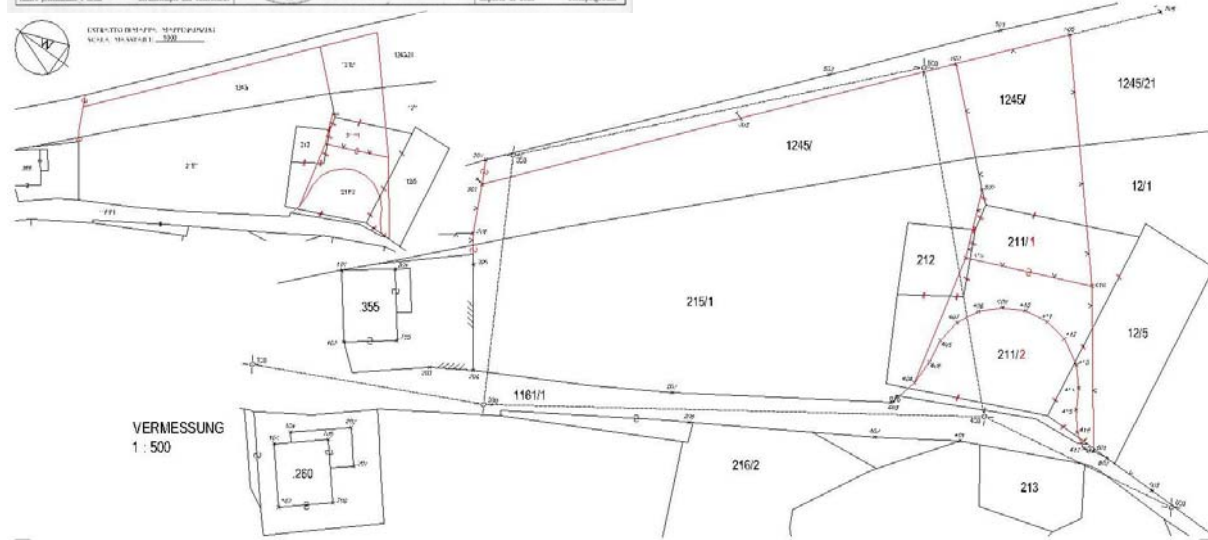
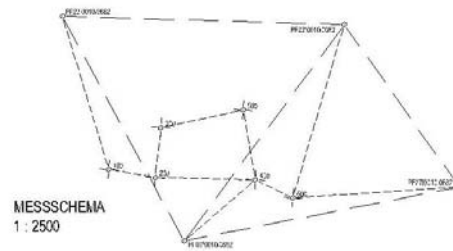


Figure 9. Example of a plan of division in the district of Silandro/Schlanders

## 6. CONCLUSION

In South Tyrol/Alto Adige, or Autonomous Province of Bolzano-Bozen, there is a good cadastral system. Starting with the former Austrian Cadastre, on to the introduction of Pregeo and Docfa, a modern cadastre was created in our country and is continually developed. Freelance technicians provide approximately 5.270 plans division a year (2005). The survey of these plans of division (Figure 9) presented at the related cadastral office will be controlled by cadastral technicians and introduced provisionally into the digital maps. The validity of the plan is now two years, in this period an official contract must be made before a notary public, followed by an official demand to the judge in charge of the Land Title Register. After a thorough check with a decree of the judge the plan is registered in the Land Register. Then the decree arrives in the cadastre and the provisional entry in the digital map is now definite. The cadastral work of the land surveyor is very important for the whole society and contributes to the economy of the whole country.

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## ACKNOWLEDGEMENTS

I wish to thank the following people for their help and assistance: Mr. Berger Hans, Assessor for Cadastre and Land Title Register in South Tyrol/Alto Adige; Dr. Eng. Russo Paolo, Inspector of the Cadastre in South Tyrol/Alto Adige; Mr. Köhl Michael, Office for Territorial Coordination and GIS, South Tyrol/Alto Adige.

## BIOGRAPHICAL NOTES

**Johann Martin Lun**, born 1945, is the current chairman of the **tpg** – Association of Freelance Land Surveyors in the Autonomous Region Trentino-South Tyrol/Alto Adige – Italy. After the studies as land surveyor- geometra in Bolzano-Bozen, 1960-1965, he was employed at the engineering company Becker in Munich (1965-1969), then Prakla-Seismos GmbH in Hannover (1969-1975), a company working in seismic/geophysics, and Philipp Holzmann AG in Frankfurt, a construction company (1975-1978), all these companies are in Germany, with one year break working in the office Gritsch & Hell 1976 in Naturno-Naturns (BZ)/Italy. With the German companies he worked as a land surveyor in Africa (Burundi, Gabon, and Ivory Coast), Asia (Saudi Arabia) and Europe (Italy, Germany, and Denmark). He was navigator on a seismic vessel in the North Sea with home harbour Bergen/Norway. Since 1978 till now he is running his own surveying office in Naturno-Naturns (BZ), Italy, working mostly on cadastral and boundary surveys. He is a member of the SIFET, DVW, VDV, ÖVG, AFT, which are Italian, German, Austrian and French Surveyor Associations and as “geometra” he belongs to the CNG, Consiglio Nazionale Geometri, representing Italy in the FIG.

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