

Registration of 3D Situations in R. Macedonia, Problems and Needs

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Key words: Cadastre, 3D Cadastre, Superficies solo cedit, Superficiei solum cedit

SUMMARY

The period of socialist system in R. Macedonia had its own characteristics which made an impact in many segments of the state management. The impact was made in the land management segment as well, especially in the part for definition of the property rights and its borders in the space. In this research the main focus laid upon relation between the parcel and the building, or so to say, the rights by which one object is related or the separated by the other one.

In this period the urban land was proclaimed for a good of common interest, and ownership of the urban land was unreachable category for individuals. The land was proclaimed as socially owned, individual ownership was possible to be gained only upon the buildings.

This principle of duality where the land and the building on the land do not have the same owner last until 2001. The change in the *law for ownership* and *law for urban land*, return the concept for delimitation of the space in horizontal by principle *from hell to haven*, meaning that registration of the property rights in the cadastre should be registered according that principle.

This approach for delimitation of property borders, in the process of registration of property rights, has shown inconvenient in many situations. In many situations where buildings were established and governed by the state, buildings which are privately owned now, registration in the cadastre system has shown as unreal compared with the real situation. Beside the replacement of the maxim *Superficiei solum cedit* with the maxim *Superficies solo cedit*, difficulties in the registration of this situations are caused by unused possibilities that legal system has provided. Namely, existence of the properties in so called 3D situations is not a new phenomenon, this type of properties existed long before. The registration and securing property rights is based on registration of ownership rights on the land to one person and then restricting that right by easements or other property rights in the favor of all other persons who have some right related with that land. What makes this situation even more difficult for R. Macedonia is that easement as a type of property right is very seldom used in the registration of property rights. In fact, in this research not even in one 3D situation that was analyzed easements were not registered. In those situations the registration has very significant drawbacks.

In this research an analyze were made on registration of 3D situations and problems have been emphasized, problems that Macedonian cadastre system experience in the registration of property rights regarding this situations.

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1. RELATION PARCEL – BUILDING

Registration of the property rights in the cadastre systems and delimitation of the actual space where the property rights exists is closely related with the basic maxim that is used for relation between parcels and the buildings erected on it (*Superficies solo cedit, Superficiei solum cedit*). Concerning this issue Macedonia has a specific situation, as several other former socialistic countries. If we look in the past we can distinct several periods concerning relation between parcel and the buildings on the parcel.

The first period that should be delimited is the period before 1958 when basic principle for delimitation of the ownership in horizontal sense was the concept *from hell to heaven* (*superficies solo cedit*) with all the characteristics which that maxim includes.

The crucial movement concerning property rights and relation between parcel and building in R. Macedonia was made in 1958 by the decision of the Yugoslavian government. By this decision, land within urban regions which is privately owned becomes social property. In practice in some extend, a nationalization of urban land was conducted. It is important to underline that this transfer of ownership of urban land included just the land in the defined regions, urban regions, not out of them. The property rights out of these regions stayed intact. People were still able to acquire ownership to the agriculture land.

The transformation of the ownership right to right to use urban land was also supported by law passed in 1958. As an urban land according this law is referring to the built up or not built up land which is within region proclaimed as urban region. The urban region is defined by comprehensive plans and detailed development plans and other documents which replaced them. The definition of the urban regions is approved by the municipal council. By the decision of the municipal council to proclaim some area as an urban area, the ownership right of the land was transformed to right to use land.

This change of the property rights imposes change to the basic principle of delimitation of the ownership of the building in relation to the land below. By the decision made by the government in 1958 the basic maxim *Superficies solo cedit* was replaced with the maxim *Superficiei solum cedit* which was in force until 2001 when law for privatization of urban land was passed.

The *Law for basic ownership relations* (in force until 2001) in section 12 presents *Superficiei solum cedit* in the pure form and says: “*when building has been built on the socially owned land, the owner of the building has right to use land under the building and the land which serves for regular exploitation of the building as long as the building exists*”. The right to use the socially owned land in the cases like this can be transferred only in the situation when ownership of the building is transferred.

Between 1958 and 2001 the basic maxim in the property rights registration which regulates the relation between the building and the parcel as it can be seen from the *Law for basic*

ownership relations is the maxim *Superficieii solum cedit*. This means that the owner of the building has only right to use the parcel on which the building is erected but could not obtain ownership on the land. In reality, whenever the building has been sold the right to use the land was also transferred to the new owner of the building. Regulating relations between the building and the parcel in this way is derived from the basic maxim which says that the land has same legal destiny as the building.

The right to use socially owned urban land do not last in perpetuity, or we can also say that the use right is not the right that does not have time limit as ownership does. However the limit in time has never been mentioned before in any other law where some time frames or intervals would be mentioned, until *the law for ownership and other property rights* came to force in 2001. However, the right to use urban land, under some circumstance can cease. The regulations regarding ending of the property rights until 2001 is regulated within the *Law for basic ownership relations*, and after 2001 the *law for urban land*. The second law beside other thing also regulates the transformation and conditions under which the land can be sold to the current holders of the right to use the urban land owned by the state, previously socially owned.

According the *Law for basic ownership relations*, the right to use urban land can cease if the building erected on it will be demolished, or with the removing of all building materials for constructing the building which is not finished yet. The right to use urban land also cease if the duality ceases, that is to say, if the building and the land have the same owner.

Since 2001 when the *law for urban land* was voted in the parliament, the right to use urban land is not one of the rights that a person can have to the urban land because that right is not stated in the law. In the section 13 of this law it is stated that: “Urban land owned by R. Macedonia can be sold, a concession can be granted for the land, or it can be established a lease”, which means that the use right to the urban land, socially owned, cease to exist in the Macedonian legislation. This law also has sections which regulate transformation of the right to use urban land to ownership to urban land.

This transformation has its own characteristics, that is to say, rules that regulate the transformation of user right to the ownership right with or without money payment.

In short, when right to use urban land existed before nationalization of urban land, the right to use of the former owners of the land and the owners of the building or the inheritors of the building is transformed in to ownership of the land without any payment toward the state. If the owner of the building has erected building on the land which is granted to him by the state, and he has not paid any money for it, or he has bought the building from some one who has erected building on the land which he had from the state, his right will be transformed to ownership right if he buys that land from the state.

Giving up from the right to use the socially owned urban land (later state owned) and introducing the right of ownership to the urban land as well as giving up of the *Superficieii solum cedit* maxim, can be directly seen from several sections at the *law for urban land*. The sections of this low which is directly related to the horizontal delimitation of the space, say that duality, different owners between the parcel and the building, will not exist any more.

At the article 7 of the law for urban land is defined explicitly what ownership of land includes, and it is stated:

The ownership of the urban land includes, surface of the land and everything else which is permanently connected to the land, and it is placed on the surface or below the surface, if the law does not state it otherwise.

This section of the law presents maxim superficies solo cedit in its purest form. This means that everything which is placed on the parcel is fixture to the parcel and the owner of the parcel is the owner of the buildings and everything else built within the parcel boundaries over or under the surface. However at the end of the section there is one part which says “*if the law does not state it otherwise*”, but we have to have in mind that in Macedonian law system condominium rights are present, and of course the long lease and concession. In the last two cases erecting buildings on someone else’s land is allowed. That is why it is important for the law to allow exception from the basic maxim. The discussion about condominium property will follow later in the text. The same context has also article 10 from the same law which says:

The buildings erected on the surface of the urban land or below the surface with intention permanently to stay there, are part of that urban land until some property right do not separate building from the land. The right which separates building from the land has to allow to the holder of that right to own building on someone else’s property or based on the concession right the holder is authorized to have building which is owned by him.

Similar to the article 7, article 10 it is emphasized the connection of the building to the land but at the same time says that building erected on the urban land can be legally separate from the land. The legal separation of the land from the building is possible by long lease and concession or *some other right* as it is stated in the law. Until July 2008 long lease and concession were the only two rights that can separate the building from the land. The change in the *Law for building* in July 2008 brought some changes which will be presented later and it is only applied to the new buildings that have not been constructed yet, for which the building permit is necessary. The rights that can be obtained to the urban land are regulated with the article 12 from the *law for urban land* which says:

The holder of the right of ownership of the urban land can sell the land or leased it on long or short terms.

However, article 12 refers to the situations when the owner of the land is anyone else except the state, but when it comes to the land which is owned by the state then the rights that can be obtained to that land are regulated in the article 13, which says:

Urban land owned by Republic of Macedonia can be sold, leased or granted concession for it.

The reason which separates rights toward urban land owned by the state and the land owned by anyone else in two different sections of the law is that the concession right can not be established to the land which is not owned by the state. In this two sections it can be seen that use right of land is not mentioned at all, or to say more explicit, is not allowed in the future use right to be granted to someone who wants to erect building on someone else’s property or

the persons who already have use right to keep it in future. According to the *Law for urban land* in the R. Macedonia erecting a building on a parcel which is not owned by the owner of the building can be done by means of long lease, if the land is privately owned, or by long lease or concession right, if the land is owned by the state. In July 2008 the change in the *Law for building* introduced a new way of establishing a building on someone else's property. The new changes said that the building beside long lease and concession can be established on someone else's parcel based on the easement right and in one more case, if the owner of the parcel transfer his building right to other person who is not the owner of the land. This new changes from July 2008 apply only to the new buildings that will be established in the future. In both cases, long lease and concession, duration of the ownership to the building is time related because long lease and concession rights can not be established in perpetuity. According to the legislation in the R. Macedonia long lease and concession can last no longer than 99 years. After the end of the long lease or concession period the building erected on the land becomes fixture to the land. The owner of the land is not obliged to pay any compensation for the building to the former owner of the building.

2. REGISTRATION OF 3D SITUATIONS IN THE CADASTRE DATABASE

The practice of registration of the properties and property rights for the typical properties will be present by the example. This way of presentation of the practice in registration is most convenient since *law for cadastre* and other regulations which regulate delimitation and registration of the space and the property rights do not give much information how this properties and properties rights should be registered. Delimitation of real property rights, concerning chosen examples, could not be administrated according to the base principle of cadastral registration in Macedonia.

The presentations of this case will be made in two parts. The first part will present the technical aspects, graphical presentation of the properties on the maps and the second part of the presentation will focus on the legal aspects and registration of property rights.

2.1 Complex of shops Estakada

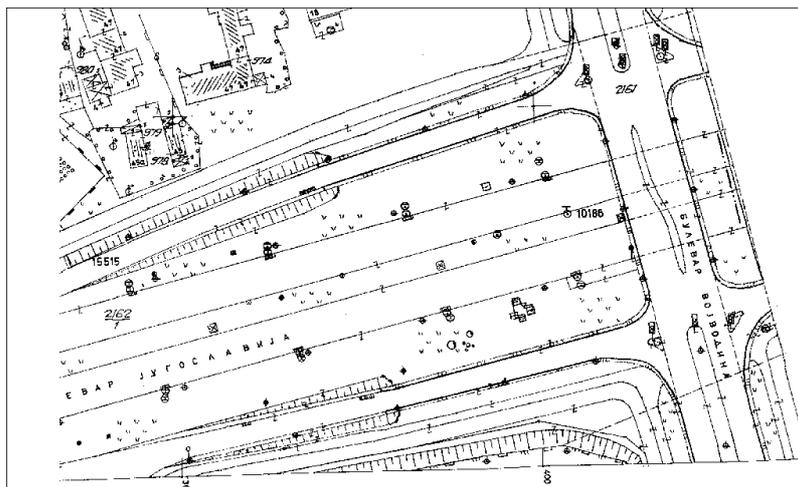
One of the characteristic cases which reveal very clearly the problem is a registration of ownership rights for the properties in the complex of shops called Estakada.

This situation is about properties (shops) which are located under a public road. The properties are retail shops and all of them are part of one "subsurface" building. Each property (shop) is a subject of separate property right registration, according condominium property rights. From the picture a situation it can be seen more clearly.

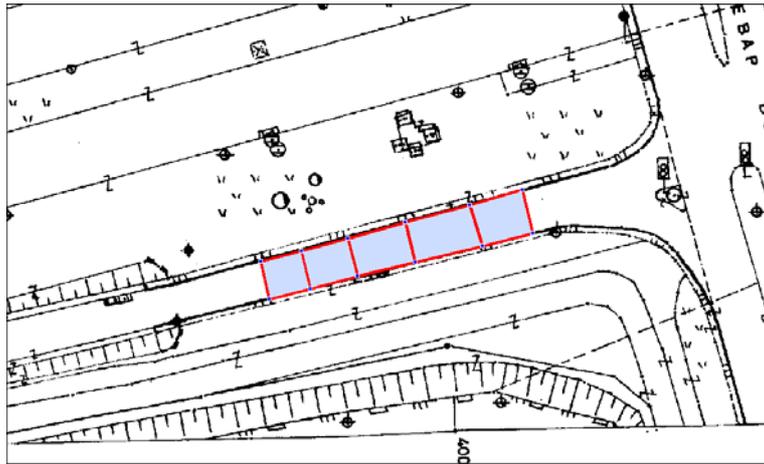


When it comes to graphic presentation of the properties concerning location of the building and parcel, the situation is very specific. On the cadastral map can be seen a situation where building below the surface is not presented in any way.

In this case we have a map where, actually, is presented just that what can be seen from above, so to say, orthogonal projection of the objects above the surface. These properties are below the road, so the road as an object on the surface is presented on the map. This is why the properties below the road are not presented on the map at all. The position of the condominiums and their location inside the building is determined by the special charts that presents the layout and identification number of the properties. This type of graphical presentation does not provide possibilities for spatial reference with the cadastral maps. These charts only present the position of, so to say, condominiums inside the building. The reason for this type of registration is that on the cadastral maps can be found only objects that are above the surface. The buildings that are below the surface can not be seen on the cadastral maps. Even though the buildings are not registered on the maps, property rights are registered for these buildings. This particular building is partly above the surface, can be seen from a side, but presentation on the cadastral map still can not be seen, because big and more important object is placed over this building, the road. The road is presented on the map. The next picture is a part of the cadastral map which presents the parcel below where the building is settled.



The first picture presents what is registered on the map and the second picture presents the building with the condominiums and its location within the parcel.



On the other hand, property rights are always registered despite position of the buildings, below or under the surface. In this particular case, regardless of the property position, below the surface, property rights are registered in the cadastral database. There are several important moments concerning the registration of the property rights in this case, which should be emphasized, so the core of the problem could be more clearly seen.

The cadastral database has record which says that on the parcel with the number 2162/1 there is one building. However, since that building is under the surface it is not presented on the map. Missing building on the map creates feeling of insecurity in the registration system, since the location of the building form the records could not be determined. At this point a question could be raised: what if there are two or more buildings under the surface of this parcel, how could we know which building the record refers to? In this case that is the exact situation. There are two buildings on the same parcel and in cadastre database is registered just one building. All condominiums within those two buildings are registered like they are located in the same building.

The second crucial moment regarding property rights of the parcel is that the state is registered as an owner to the land, which actually is very logical since the roads in R. Macedonia are owned by the state.

When it comes to the property rights concerning condominiums (the separate properties inside the building) several irregularities of the registration could be underlined concerning property rights between parcels, building and condominiums. This complex of shops, has been established after the road construction, so at the beginning another question rises, how could be a building permit granted for building construction on the parcel which has the main goal to serve as a public road? In this case the problem is purely administrative since in reality the space actually exists and the building could be build on it, but the cadastral registration says that the parcel is a road and at the first glance we have very illogical situation. The building permit is granted for constructing a building on the parcel which has the same number with the parcel which delimitate the public road.

Further more, the owners of the condominiums have purchasing agreements made between them and investors of the building and based on this agreements they have registered the ownership rights in the cadastre offices. In the period when these properties were established

the land, because it is urban land, was owned by the state. It is logical for the owners of the condominiums to have gained right to use the parcel. The thing that makes this registration even more interesting is that owners of the condominiums today but also in the past do not have registered right to use the parcel. The cadastre office have not registered any right in behalf of the owners of the condominiums to the parcel, ownership, use right, easement, lease nothing that will make relation between the building and the parcel and will secure rights to the owners of the condominiums. The buildings, as well as condominiums, are treated as a separate property from the parcel. This registration is not in line with the principles that define and delimit the property rights between the building and the land. The basic maxim in the period when the building was erected was *Superficieii solum cedit* so it is expected the use of right to be registered on the parcel. That right was never registered on the land and the situation has not changed yet.

It is interesting to state that regular registration of the property rights could not be made for these properties in the past also, because the use of right could not be gained on the parcel whose main purpose is public road. This means that this problem have not raised with the change of the maxim from *Superficieii solum cedit* to *Superficies solo cedit*. The problem for this particular property, exists also in the period when urban land was state owned, so proper registration according the principles and rules could not be properly done for this particular property, here the problem actually is 2D orientated approach.

The change of the basic maxim, in relation between the building and the parcel, has caused one more problem regarding property rights registration. According Macedonian laws, the rights that can be related to the urban land are ownership, lease, concession and easement. The use of right is impossible to be established on any land, so to say, that right is impossible to exist further. The owners of the buildings which are build on the parcel owned by the state, can gain ownership by purchasing the parcel from the R. Macedonia or transform the use right in the ownership right without any payment if the owner of the building was also owner of the parcel before 1958 when nationalization was conducted.

Since this parcel is a road, it can not be made any privatization of the land. In this case only one option can be used, the owners of the building can establish only a long lease on the land. This means that the owners of the condominiums in the building will have to pay monthly or yearly a rent to the owner, in this case to R. Macedonia. However, establishment on a long lease in this situation it is not also an easy task, because the parcel is a public road and because the exact location of the parcel that should be leased is under the road. This even creates a problem which means that even the space where the lease will be established should be delimited in 3D. If the lease would be established on the whole parcel owners of the condominiums in the building would have to pay a high value for the rent since the owners will lease a very big parcel which is not even close to the reality. Because the owners of the condominiums use a very small area of the parcel then the lease should be established only to a small part of the land, not on the whole parcel. If the lease will be established on the area where the building is actually located, with the area, space, delimited in 2D then the actual road where cars drive, according the presentation in the cadastre, would be leased.

On the other hand, delimitation of the property rights between building and a parcel is regulated with the law for urban land and the law for the cadastre. These two laws regarding

the definition of the properties are not inline or so to say those two laws are in collision. The law on cadastre gives the following definition for real estate:

Real estate is land, buildings, particular parts of the buildings (condominiums) and other objects, as well as other real estate which are registered in the cadastre of real estate according the law.

If this is the definition of the real estate property then any building or condominium can be registered as an independent property without trying to find connection between the parcel and the building.

The law for urban land, as was stated before, in the article 10 says that the building is permanently connected with the land with exception of the situations when some property right will separate the building from the land. According the same law there are only two property rights which can separate building from the parcel, these rights are long lease and concession. Those two cases apply only to the already established buildings. For new buildings two more options are available.

The differences between definition of the property and relation of the property with the parcel clearly make conflict between the *law for cadastre* and *the law for urban land*. By those two laws the same situations are regulated but the outcome is different depending on law it refers to.

According the law for spatial planning, the owner of the land but also other persons can apply for building permission for a particular parcel the owner and persons who have legal right to build on that parcel even if it is not owned by them. This is regulated in article 52 of the *law for spatial planning*.

Until July 2008, when the new changes of the law for building were adopted in the parliament, the only three rights which could allow erecting building on someone else's land were long lease, concession and easement. The long lease and concession could be used for erecting buildings, easement was used for utilities only. From the July 2008 two more options are provided. This two more options are stated in the article 13 of the *Law for building*:

... the right to build have the owner of the land, the person who has the right for long lease on the land, concessionary, the holder of the easement right for the building purposes, the person to whom the owner or the holder of the long lease right has transfer the building right to him...

The article 52 from the *Law for spatial planning* also includes setting the underground utilities as one of the most common needs for building on the land which is not owned by the owner of the utility. From this section of the law for spatial planning and from the article 13 from the *law for building* we can also conclude that the building can be build even if the one who builds (investor) is not the owner of the land. The introduction of the new changes in the law for building is a bit unclear how the registration is going to be done in the cadastre. If the investor has the easement right then it is not a problem because the easement right will connect the building and the parcel, after the building will be erected then the investor will be the owner of the building and will have the easement right to the parcel. But if only the right to build is transfer to the investor then the question comes, what right after the establishment

of the building the owner of the building (investor) will have upon the parcel. If the owner of the building is separate from the owner of the parcel the duality, different owner of the building and the parcel, is back in the game, which is opposite of the intentions in the *Law for ownership and other property rights* as well as the *Law for urban land*. Because this changes in the law were introduced very recently to be seen the outcomes will take some time.

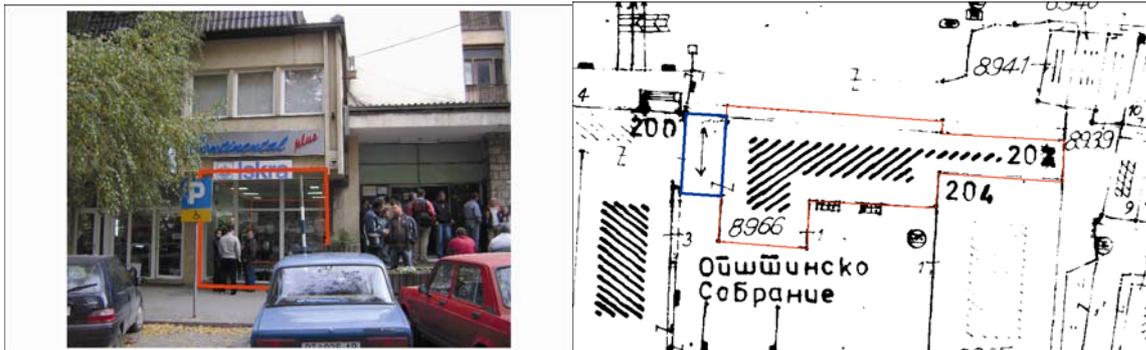
2.2 Consequence of the irregular registration

Until now all the situations which were presented do not have records in cadastral database which provide security for all rights that exist or should exist in the reality. In this section of the thesis two completely similar cases will be presented, but with the different outcomes. These cases will reveal the danger of not registered property rights.

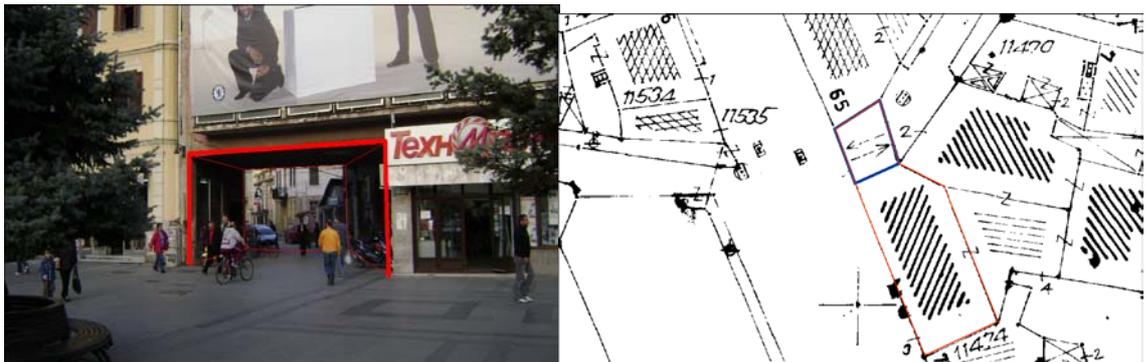
It is about two passages under the building. Both are very similar and close one to another. The main function of these two tunnels is for communication of people, pedestrian roads. These pedestrian roads in the past and today also, are very frequently used. Over the roads in the both cases there are erected buildings about thirty years ago. The buildings were public property and were governed by public companies. The roads in R. Macedonia, in the past were socially owned, after 2001 became ownership of R. Macedonia.

The situations are presented on the maps:

Case 1



Case 2



On the map, red lines present the building and blue lines present the tunnel.

Few years ago both buildings become privately owned. The land was also bought from the state and now it is also privately owned in both cases. The interesting thing is that the space which is marked with the blue line, the road, is registered as a part of the parcel on which the building is erected. When the building become privately owned the owner of the building also become owners of the space where the tunnels exist.

At the second case especially, the road was there for long years before the building was erected. When a building was built the space with the blue line was covered with the extension of the building. Both properties were socially owned and the buildings were also public property. At the time back there was no problem with the property rights. Since all of the properties which intersect, the building, the parcel and the road were owned by the same owner, and no problem could arise.

Until 3-4 years ago, the building and the road have the same owner. Later with the privatization of the land and registration of the property rights in the cadastre database, the part of the road was registered as a part of the parcel on which the building is erected since the cadastre presents on the map only what it can be seen from above, orthogonal projection of the objects. Because the building can not be placed on two parcels the land where the tunnels are situated become part of the parcel to which the building actually belongs. Today, the situation regarding ownership rights is clear and the tunnels are privately owned in both cases at least according the rights registered in the cadastre database. This registration is not presenting the real situation and all necessary rights are not secured with the registration in the cadastre database.

Something which makes these cases interesting is that space used for the road below the building in both cases is privately owned and the owner of the building has ownership right to that part of the road. The owner has right to place fence to protect his property. The exact thing happened to the first property presented. The owner files request to the municipality to close the tunnel and make shop instead of the tunnel. Since he has ownership of the space which is used for the passage and it is a part of his property the municipality issued permit the tunnel to be closed and the shop to be established. Today the tunnel is closed and there is a shop at the place where the tunnel existed years ago. The lack of registration of property rights brought to the situation where important tunnel was closed and the rights to these tunnels were and still is unsecured.

The tunnel, according the Macedonian mechanisms for registering the property rights could not be registered as a separate property below the building. Something which could be used in this situation for securing right of tunnel is an easement. In both cases there is no easement registered in the cadastral database regarding the tunnel. Lot of the situation like this are similarly registered and very often property right are insecure. This is just one of the examples that could be met in the reality. Lots of the buildings which are intersecting with the roads are registered as this one.

3. CONCLUSION

Concerning the results from the research two groups of the conclusions can be made. One group refers to the property rights that could be obtained, which regulates the relation between

the building and the surface parcel and the second group of conclusion is referring to the registration of properties and property rights in the cadastre database.

Property rights related to the parcel and the building and its existence from 1958 until 2008 can be mainly separate in three periods.

The **first period** is between 1958 to 2001. In this period the urban land was proclaimed and treated as socially owned land. Private ownership upon urban land was not possible. Each buildings erected on the urban land by a private persons were related to the land with the *right to use urban land*.

The **second period** is between 2001 and summer 2008. Since 2001 the right to use urban land is abolished. In the law for urban land is state that only ownership, right to long lease and concession can be obtained upon urban land. This means that a person who is not the owner of the parcel could build only in two cases, if he/she obtains long lease or a concession on the land. All the owners of the properties which were and still are holders of the right to use urban land have certain period to buy the land from the state or to establish a long lease on the land and pay monthly rent for the land. The right to erect a building on the urban land based on the easement is not stipulated in the law but even though it can be found in a few court cases as right the owner to keep already erected building on the land through easement right, the land which he does not own it.

The **third period** started since July 2008 with the changes that were made in the *law for building*. In this law changes were made that allow the building to be erected on the property that is not owned by the person who builds on it. Except the long lease and concession now this can also be done through easement or by transferring the building permit by owner of the parcel or by the person who have right to long lease and have obtained building permit to some other person. In these cases the one can have ownership of the building erected on the parcel but not have ownership to the land. In the first case the relation between the parcel and the building will be made through the easement. The second case is not very clear, what right will have the owner of the building upon the parcel? In the case where the building and the parcel have different owners, the duality is created, separate ownership between the building and the parcel, the approach that was abolished in the 2001.

The registration of the properties and property rights in the cadastre database is the second aspect of this research. From all the situations that were analyzed in this research (not just presented one) it can be made several conclusions concerning registration:

- very often the rights upon the land in 3D situations are not registered. This land usually is owned by the R. Macedonia but it is not stated explicitly in the cadastre database. The buildings erected on this land are usually privately owned. The right which allowed the building owner to have building on the state owned land is not registered in the cadastre as well.
- registration of the building in the cadastre offices which crosses the parcel boundaries, surface borders, is not possible even if the building is below the surface. The building can not belong to two parcels.
- the easement right in 3D situations is very seldom used, if it is used at all (that kind of case was not met in the research) to protect or secure the existence of the building on the parcel with separate owner then the owner of the building.

- the actual space where the easement refers to is not registered at all on the cadastre maps or other documents.
- any building which is placed below the surface is not presented on the cadastre maps.

Overall conclusion for the registration of 3D situations is that property rights and actual registration of the properties on the maps is very poorly done. It is necessary to improve all aspects of the registration processes and securing property rights.

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Vanco Gjorgjiev has a degree of Geodesy from The faculty for Civil Engineering in Belgrade where he also attended master studies and become Master of Science in 1992. He also become PhD in 1996. At this moment he is a professor at the Faculty for Civil Engineering – Skopje for courses related with GIS and Cadastre systems.

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