

< [non-ownership \(subordinate\) real rights in land](#) | [Contents](#) | [Concepts to support cooperative registration patterns](#) >

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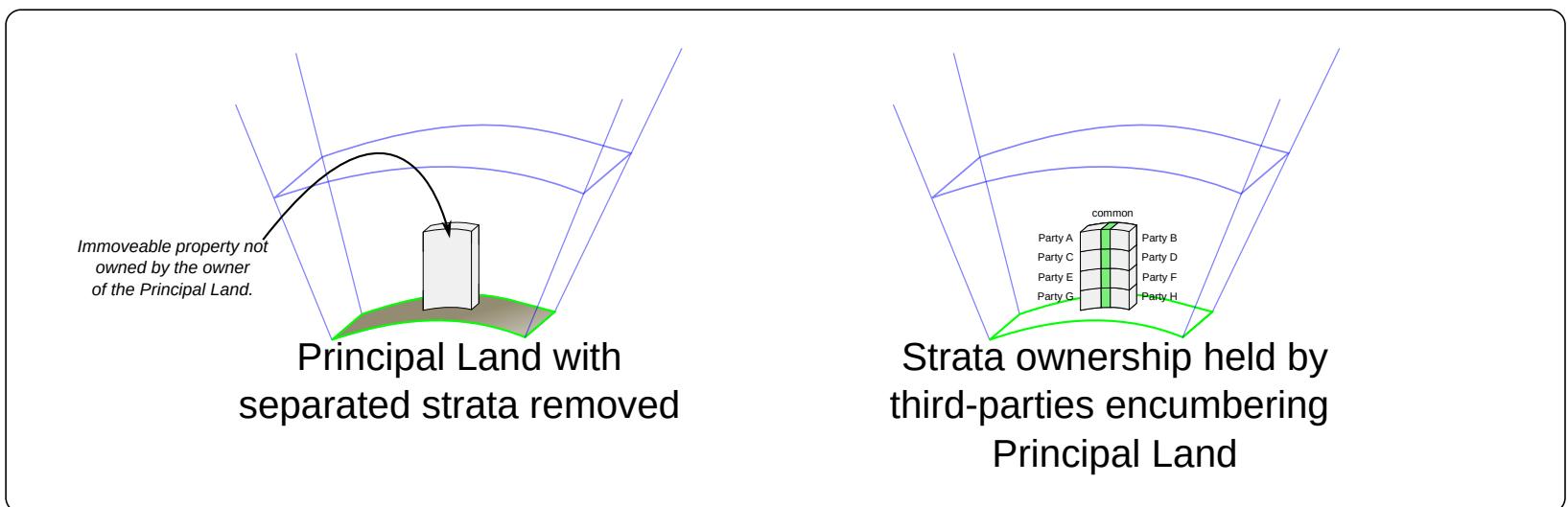
LADM patterns to support the efficient modelling of Cooperative (Community and Strata) Titles for Land Registers

Anthony Beck

Duncan Moss

Cooperative ownership

Cooperative ownership : Ownership with associated complex rights relationships with other owners.



Separating ownership from Principal Land

In many jurisdictions sub-ownership rights can be separated from the main body of ownership.

In Scotland these are referred to as *separate tenements* and encompass such ownership rights as (after pp. 168-171)

- minerals,
- salmon fishing,
- mines of gold and silver, and
- petroleum

These rights come with further benefits so the owner of the sub-ownership rights can effectively enjoy the right they hold.

Such as a 'right of access'

These are not seen as excessively onerous by owners of the principal land.

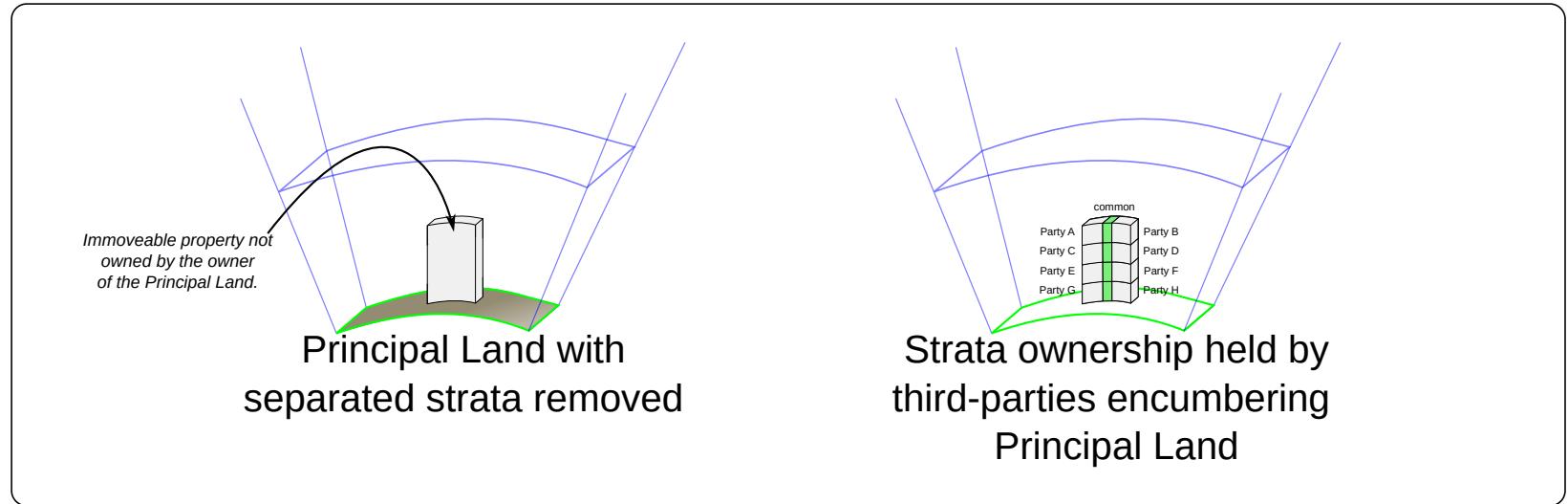
What about strata?

Strata can be used to describe bridges or sub-strata to define tunnels.



What about flats/condominia?

Conceptually, a flat is strata airspace subdivided by reference to structures built in that air.



Owners of flats have **interdependent community cooperative rights relationships** with other owners in the flatted building.

These relationships are significantly more complex and onerous than rights required to support other separated ownership.

Airspace/Strata and interdependent cooperative relationships

There is a need to determine

- who owns the property above, below and around each flat.
- ownership relationships with common or shared areas (e.g. the lifts, stairwells, halls, and roof).

More importantly **who pays for the maintenance of these 'shared areas'?**

Interdependent cooperative relationships - a general approach

Other forms of ownership have similar cooperative relationships to flatted buildings.

A distinction can be made between vertical and horizontal subdivision (, p. 4). We will refer to:

- vertical subdivisions as **strata titles** and
- horizontal subdivisions as **community titles** .

We refer collectively to horizontal and vertical ownership as **cooperative ownership** .

Cooperative ownership is defined as ownership with relationships with shared property **that usually require maintenance** (lift, stairwell, hall, pool, car park, roof, surrounding land, etc.).

Why the emphasis on maintenance?

Cooperative ownership requires the payment of maintenance to be legally enshrined in **perpetuity**.

This is a type of covenant called a **positive obligation**.

In general, jurisdictions have rules that ensure that registerable covenants **in perpetuity** can only benefit land.

However, **positive obligations** do not directly benefit the land.

Hence, orthodox property law alone is not adequate for cooperative ownership where encumbering *positive obligations* are required.

Solution 1 - Leasing

This problem can be solved by leasing rather than owning.

Simply remove 'in perpetuity'.

This is the approach adopted by England and Wales, where flats are normally held as leases rather than owned.

However, citizens in many jurisdictions value ownership over leasehold.

Solution 2 - Extending ordinary property law

Specific registration law can be used to extend orthodox property law.

Such laws allow *positive obligations* that support the maintenance of strata and community titles.

These tend to include **a body corporate** (such as a housing association) which

- manages relationships between owners
 - including granting easements for shared property.
- has limited powers to create 'positive obligations'.
- levies and administers the necessary finances

New Zealand: example legislation

This is demonstrated in the (, s3):

*The purpose of this Act is to provide a **legal framework for the ownership and management of land and associated buildings and facilities on a socially and economically sustainable basis by communities of individual owners and, in particular,***

- 1. to allow for the subdivision of land and buildings into unit title developments comprising units that are owned in stratum estate in freehold or stratum estate in leasehold or licence by unit owners, and common property that is owned by the body corporate on behalf of the unit owners; and***
- 2. to create bodies corporate, which comprise all unit owners in a development, to operate and manage unit title developments; and***
- 3. to establish a flexible and responsive regime for the governance of unit title developments; and***
- 4. to protect the integrity of the development as a whole.***

Legal concepts

The literature defines two general legal approaches to structuring cooperative titles:

- Dualistic (*condominium ownership*) model and
- Monistic (*condominium user right*) model.

Monistic model

The monistic model is defined as follows:

The owners of the apartment units are joint owners of the entire building and the ground below.

....

The co-ownership includes the right to have the exclusive use of a certain part of the building: the apartment unit.

This means that the persons do not legally own a separate apartment unit, although the apartment ownership can be mortgaged.

(, p. 33)

Monistic model - patterns

The monistic approach relies on the ability to register a *share in a flatted building*

Each ownership share describes an area which is exclusively reserved for the owner.

The owner has a real right in the flatted building, but exclusive access to an apartment in the same building granted *in personam*.

The share in the flatted building and the right to exclusively use an apartment are treated as one.

When an apartment is sold, the share of ownership in the flatted building (which includes exclusive use of part of the building) is transacted to a third party.

Dualistic model

The dualistic model is defined as follows:

Every apartment owner has the full ownership of a part of the building (apartment).

The communal areas of the building, such as staircases and elevators are held in co-ownership.

This can be described as compulsory co-ownership, or an accessory restricted co-ownership.

“Accessory” because it cannot be separated from the ownership of the apartment, “restricted” because during the time the building is divided into apartments, the separation and division of the common areas is not possible.

(, pp. 32-33)

Application of the models

The major distinction between the two types appears to be framed around whether:

"the owner of the land is considered also as the owner of any buildings erected on it?"

(, p. 56)

If so then the *monistic* model is used.

If not and *strata is recognised as registerable real property* then the *dualistic* model is used.

< [Cooperative ownership](#) | [Contents](#) | [Land Theory](#) >

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Concepts to support cooperative registration patterns

In broad terms:

- `dualistic` takes a *cadastral unit* (owned land) approach to registration.
- `monistic` takes a *party* approach to registration.

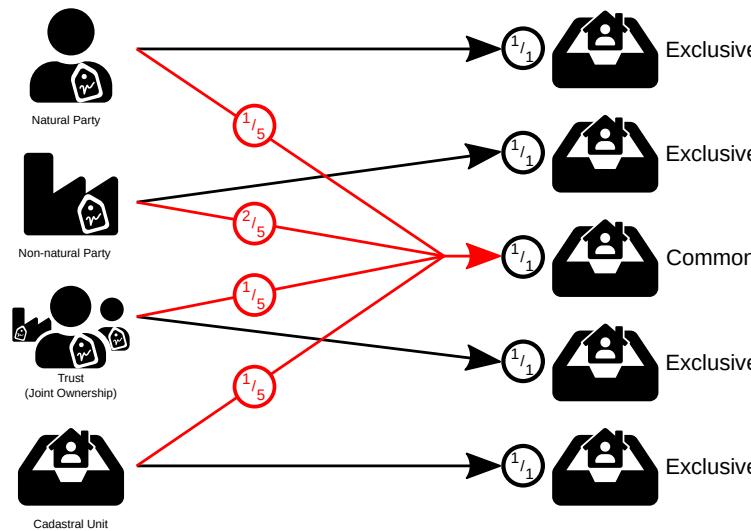
We shall initially consider the party concept.

Party patterns

In terms of *registration* parties describe the *things* that can hold *registerable rights* defined by *land*.

Registerable Parties

Parties that can be registered because they are:
A. legally registerable AND
1. own land OR
2. benefit from rights over someone else's land (including lease)



Owning Parties

Parties who own either have :
1. Exclusive Ownership (a $1/1$ fractional share)
2. Common Ownership (multiple parties with a fractional share that always equals 1)

Party patterns and the monistic approach

The monistic approach relies on the ability to

1. register a party share in a flattened building
2. the share describes the parts of the building which are held exclusively by the fractional owner.

There are a number of ways in which this can be achieved.

This is dependent on how the jurisdiction allows exclusive and common shares between:

- natural parties
- non-natural parties (including bodies corporate)

The use of bodies corporate for registration

The body corporate can be the formal owner on the register and grants rights of occupancy to residents (natural or non-natural parties).

In such a model the body corporate would likely take on the role of management and maintenance.

It is also likely that trustees or the company board would comprise of all the residents.

It should be noted that the ownership is likely to be indirect: the resident will, at best, have a personal, rather than a real, right (, pp. 39-40).

As such many of the legal details are managed off-register - although the registered quanta can have a significant role for voting rights.

Dualistic modelling and cadastral unit patterns

There are three concepts that support dualistic modelling:

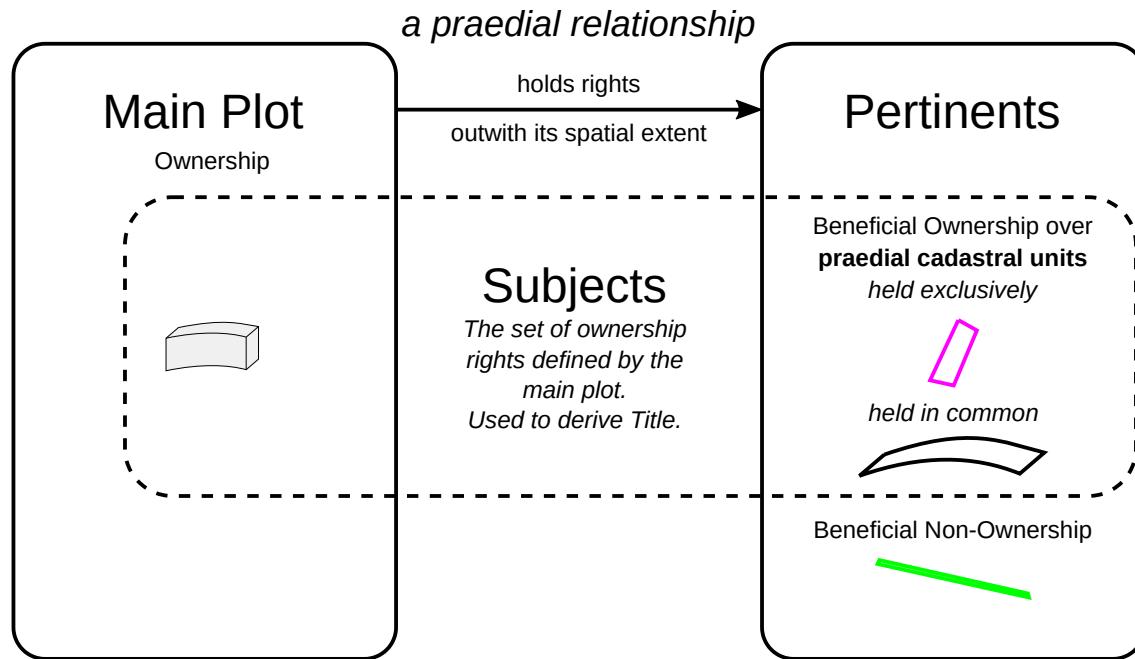
- Praedial pertinents
- Ownership inheritance
- Subjects (the set of ownership rights implied through praedial pertinents and inheritance)

What are Pertinents

A landowner may sometimes hold rights in respect of heritable property beyond his own boundaries.

Rights of this kind are known as 'pertinents'. (, para. 196)

Pertinents are a concept in Scots law: They have important generic modelling ramifications.



What are Pertinents

Pertinents are legal shorthand for describing both ownership and non-ownership which automatically pass to successive owners of land by implication.

Conceptually the cadastral unit **holds the right as a proxy** for the owning party(s).

In simple terms pertinents represent rights held by the land (praedial) which benefit the land owner.

Running with the land - emergent properties of Pertinents

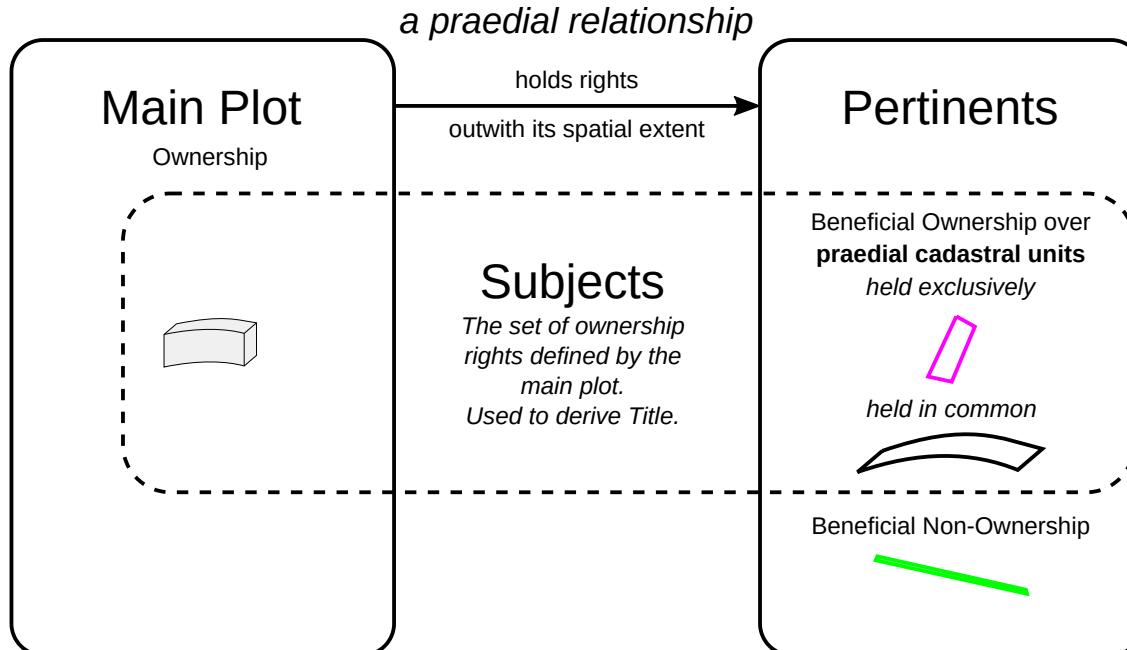
When the dominant cadastral unit is sold the benefit automatically travels with the land and becomes a benefit to the new owner (, p. 6).

Praedial rights are said to *run with the land*.

Praedial Cadastral Units

Praedial relationships describe ownership and non-ownership rights relationships.

We have referred to cadastral units **which are owned by other cadastral units** as
praedial cadastral units



Praedial Cadastral Units

Praedial cadastral units can be used to model a range of scenarios including:

- shared driveways,
- the remaining areas of a housing development that are held in co-ownership,
- flatted building (when conceptually co-owned by flats),
- pends,
- car parking spaces and bin stores.

What is Inheritance?

Inheritance is an emergent concept which is implied by ***chained* praedial cadastral units**. For example,

if a cadastral unit 'A' has:

 ownership interest in a praedial cadastral unit 'B' which in turn has:

 ownership interest in a praedial cadastral unit 'C'.

What is the relationship between 'A' and 'C'?

What is Inheritance?

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 ownership interest in a praedial cadastral unit 'C'.

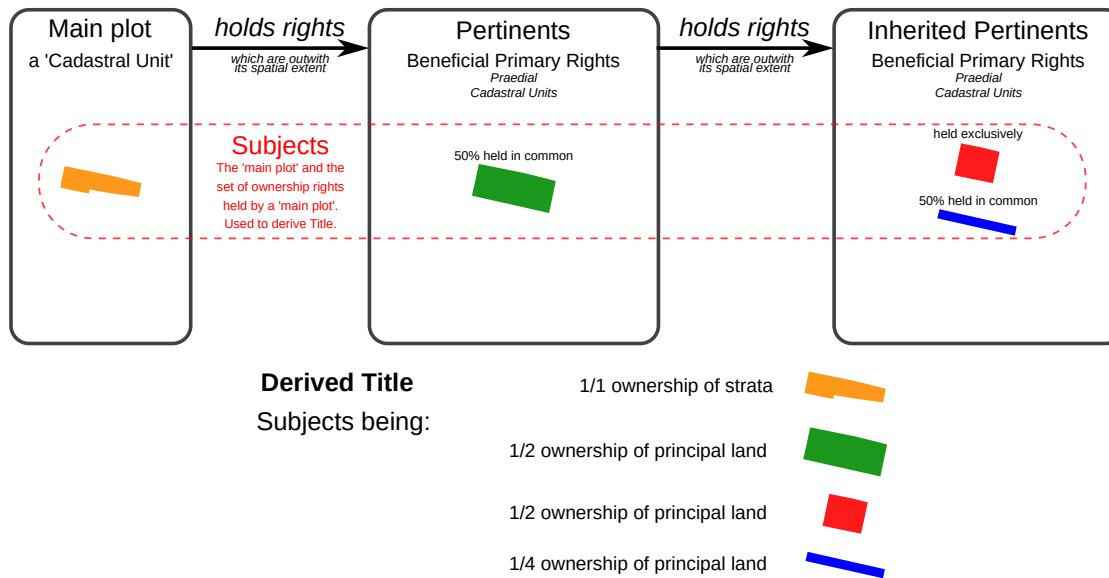
What is the relationship between 'A' and 'C'?

Conceptually, 'A' inherits a beneficial ownership interest in 'C' from 'B'.

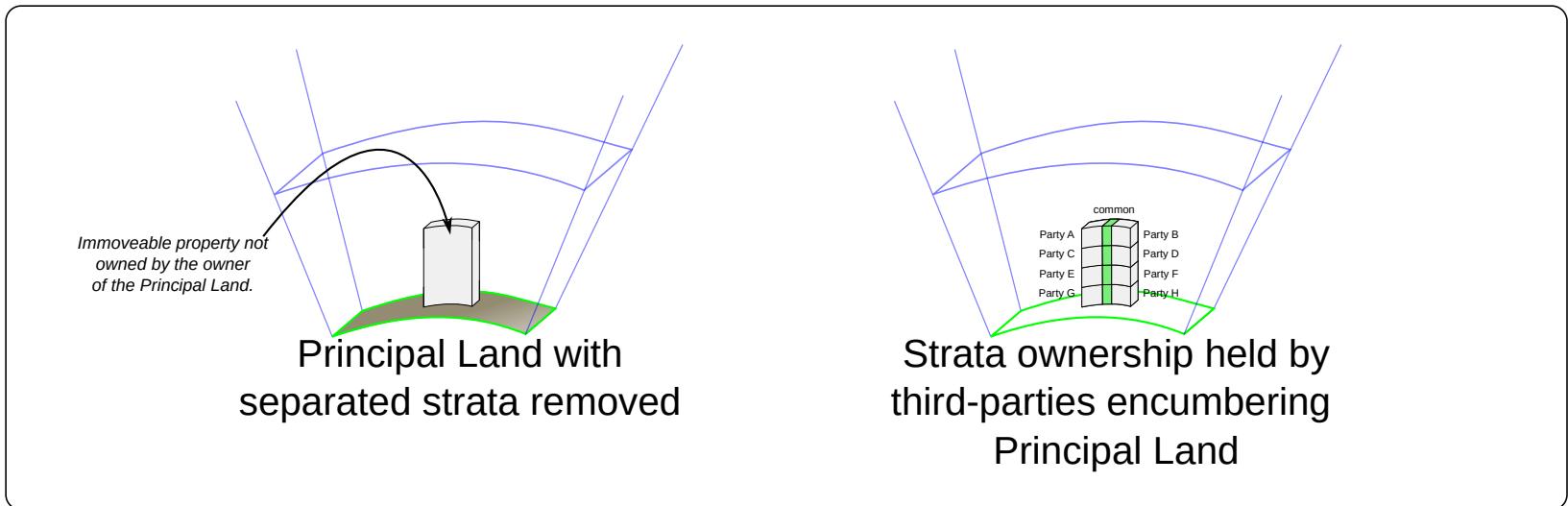
This should be narrated when Title is derived for 'A'.

This inheritance principal is theoretically infinite.

What is Inheritance?

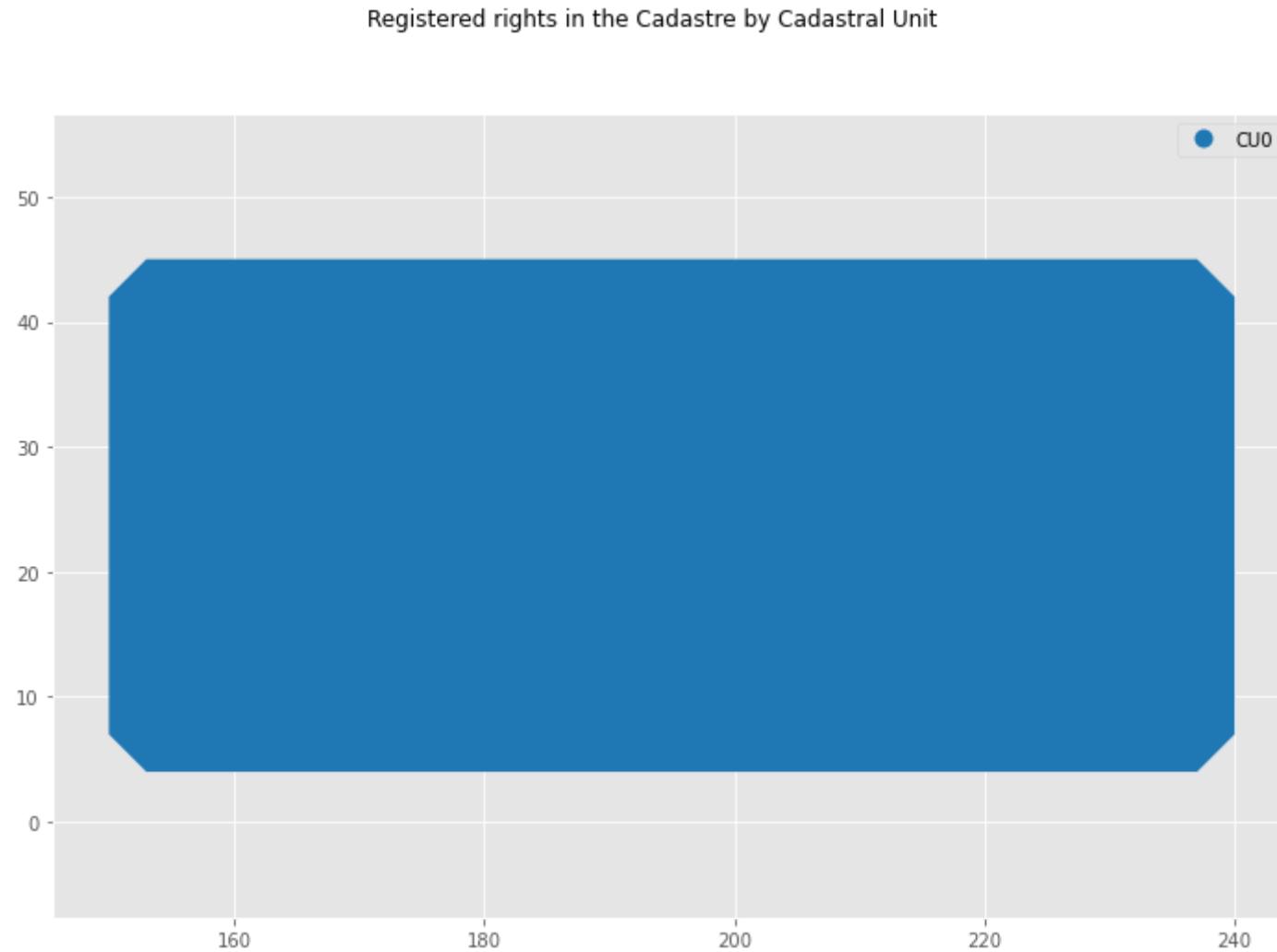


Registration exemplar for dualistic cooperative ownership



```
In [6]: plotGDF(queryAll_LR(),'lrr_title_number','Registered rights in the Cadastre by Cadastral Unit')
```

```
Out[6]: ()
```

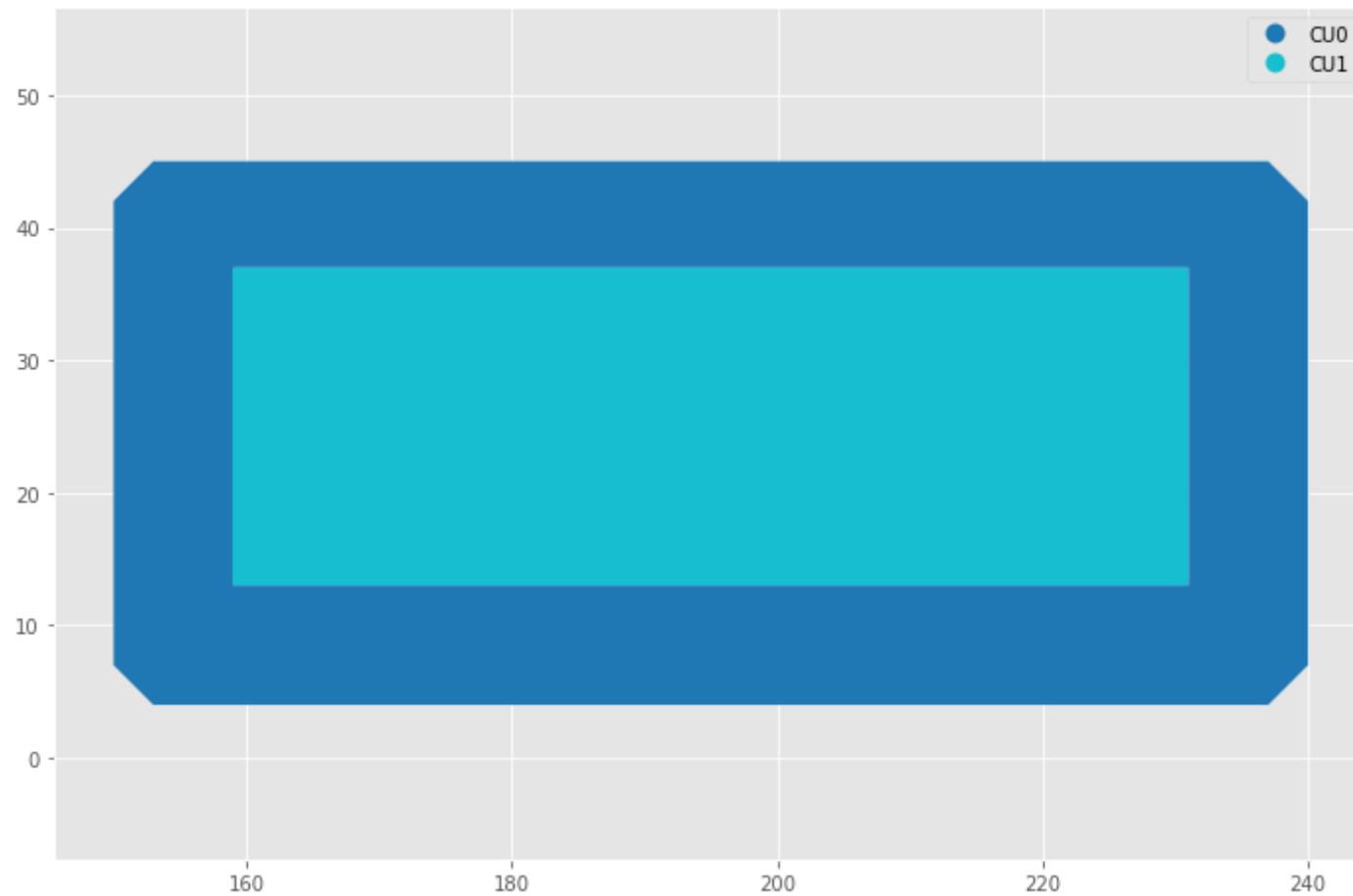


In [10]:

```
plotGDF(queryAll_LR(),'lrr_title_number','Registered rights in the Cadastre by Cadastral Unit')
```

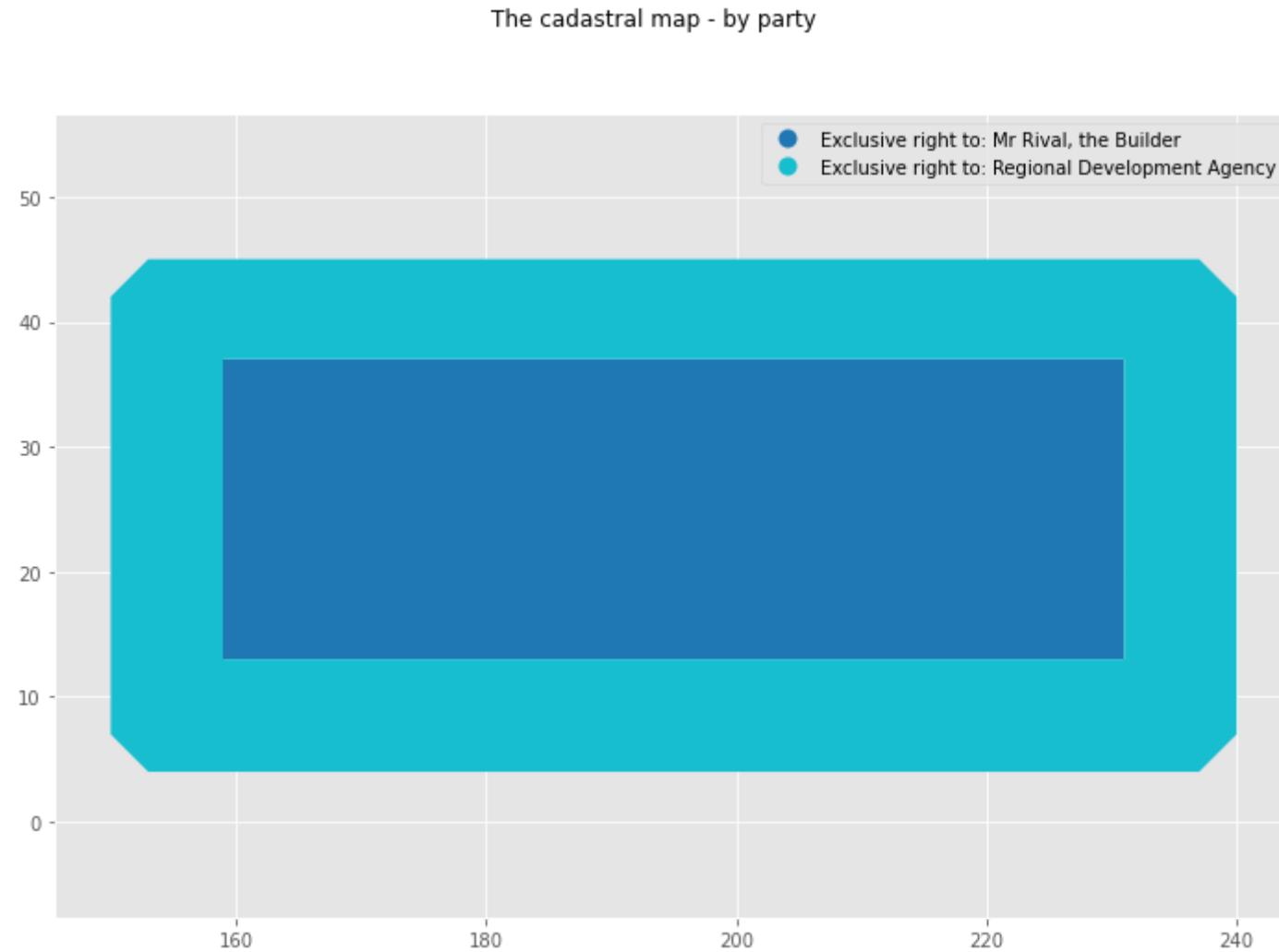
Out[10]: ()

Registered rights in the Cadastre by Cadastral Unit

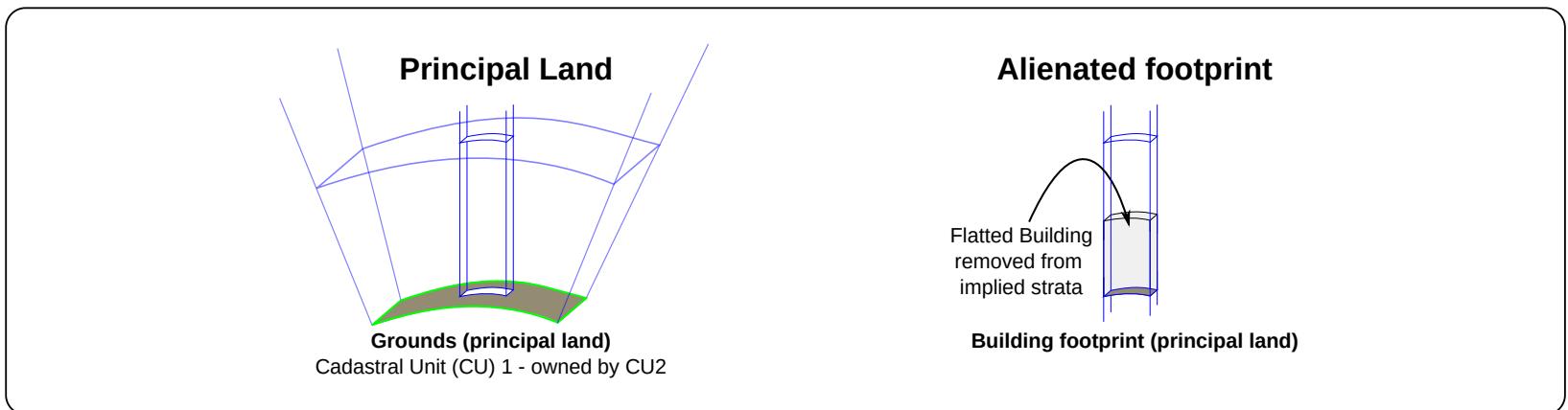


```
In [11]: plotGDF(queryAll_LR().head(20), 'right_holder', 'The cadastral map - by party')
```

```
Out[11]: ()
```

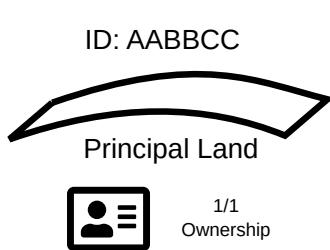


Alienate the building footprint as principal land from CU1

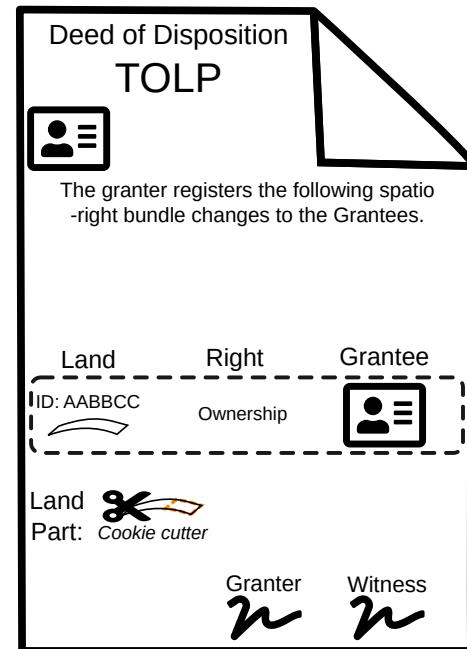


A transfer of land part

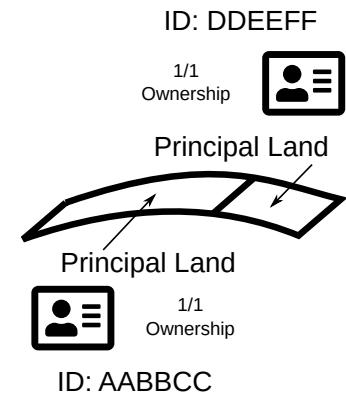
Before



Deed
(change)



After

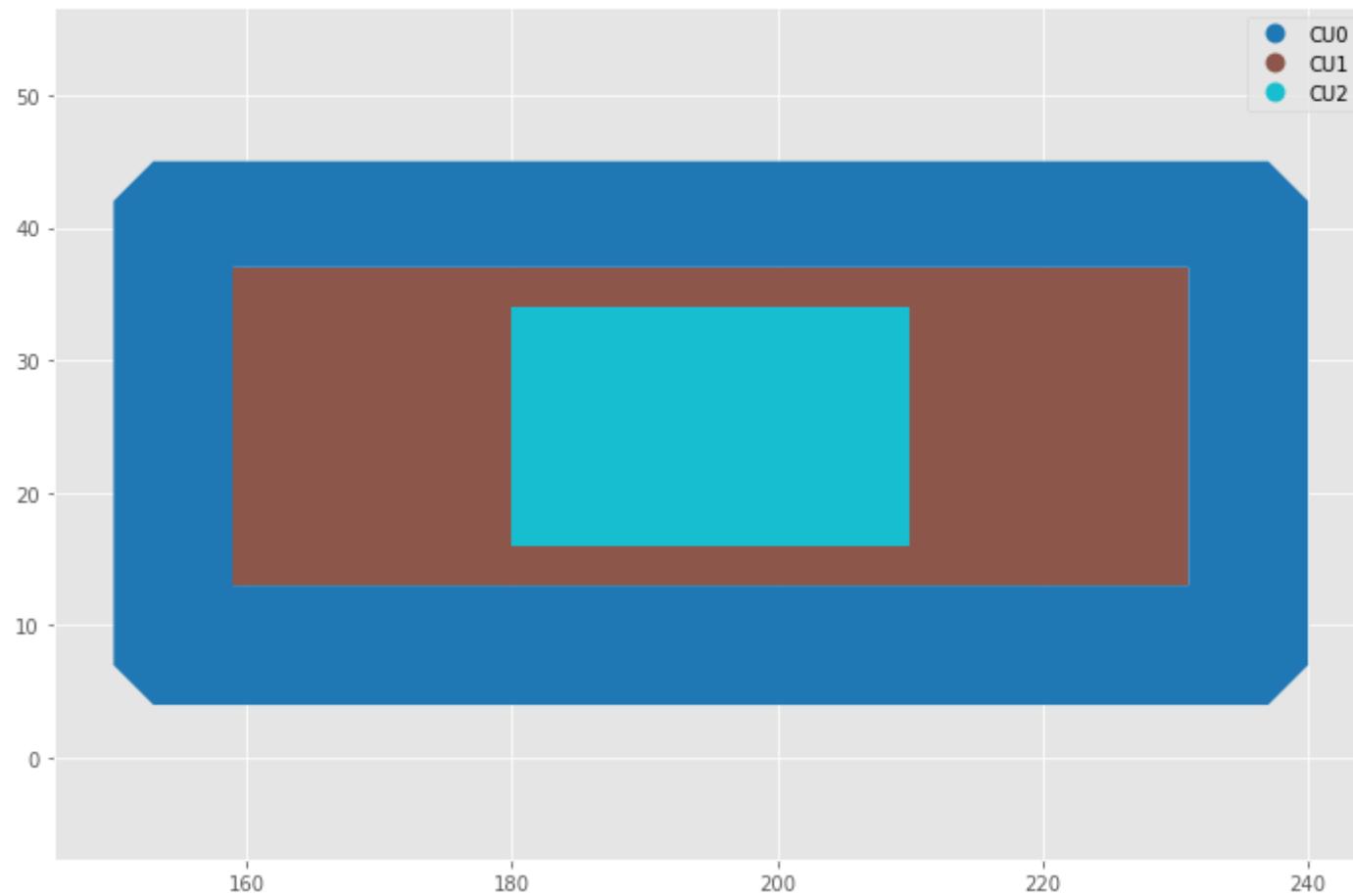


In [13]:

```
plotGDF(queryAll_LR(),'lrr_title_number','Registered rights in the Cadastre by Cadastral Unit')
```

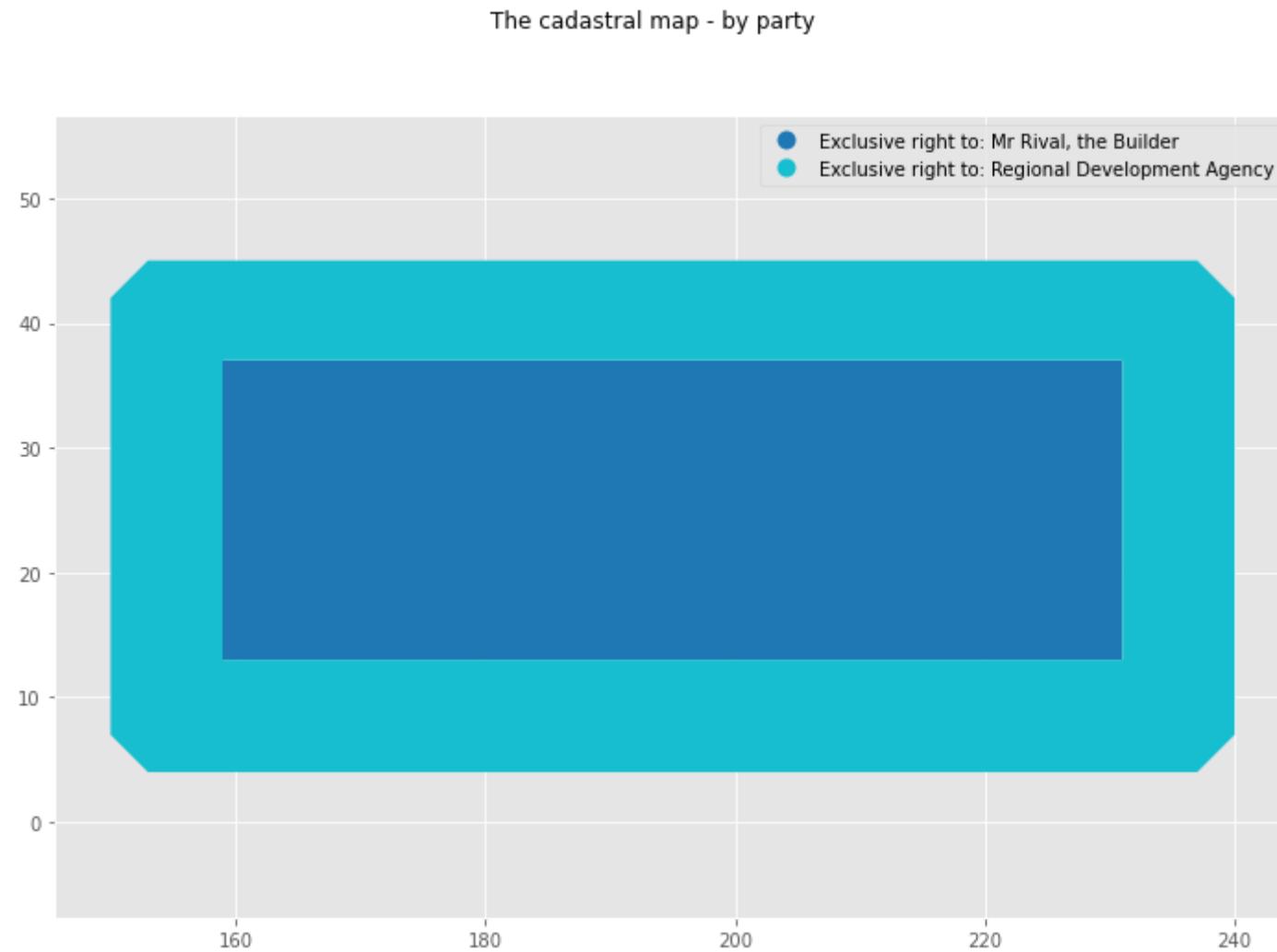
Out[13]: ()

Registered rights in the Cadastre by Cadastral Unit

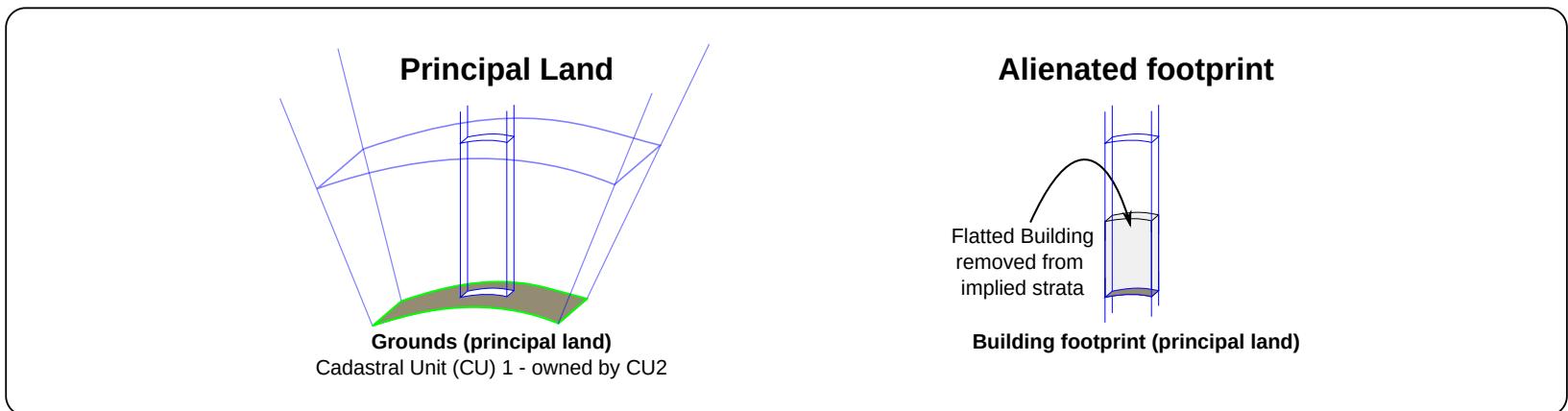


```
In [14]: plotGDF(queryAll_LR().head(20), 'right_holder', 'The cadastral map - by party')
```

```
Out[14]: ()
```

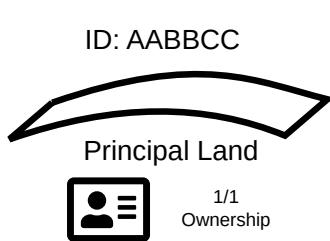


Transfer the ownership of CU1 to CU2 (a party transaction)

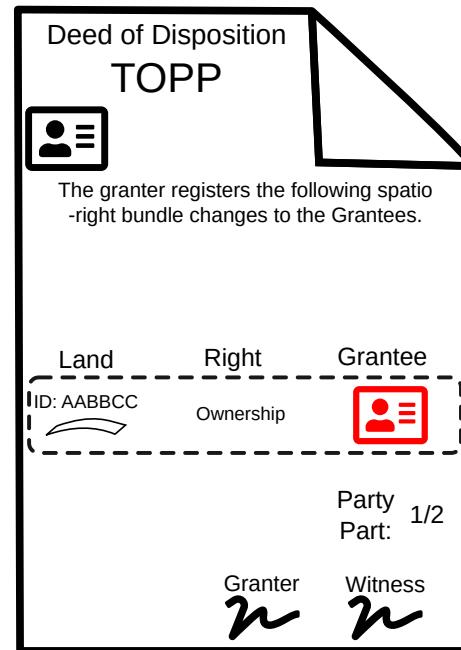


A transfer of party part

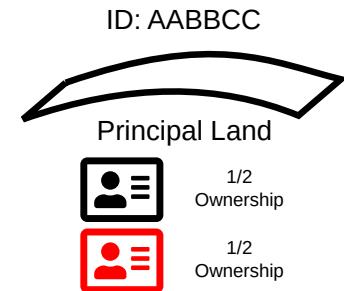
Before



Deed
(change)



After



Creating the deed

In [15]:

```
# transfer ownership of cartilage to the flat footprint - a praedialrelationship
curR.execute("insert into ar_application_record(ar_legal_instrument_type, ar_legal_instrumen
batchDeeds(querySubmittedARs()))
```

This is a transfer of ownership part party (TOOPP) for application record
4

Transfer of Ownership Part PARTY grantee added, original ownership versioned, remainder added to original owners record. New owner and their fraction added as described in application record : 4

Application record 4 accepted

— — — — —

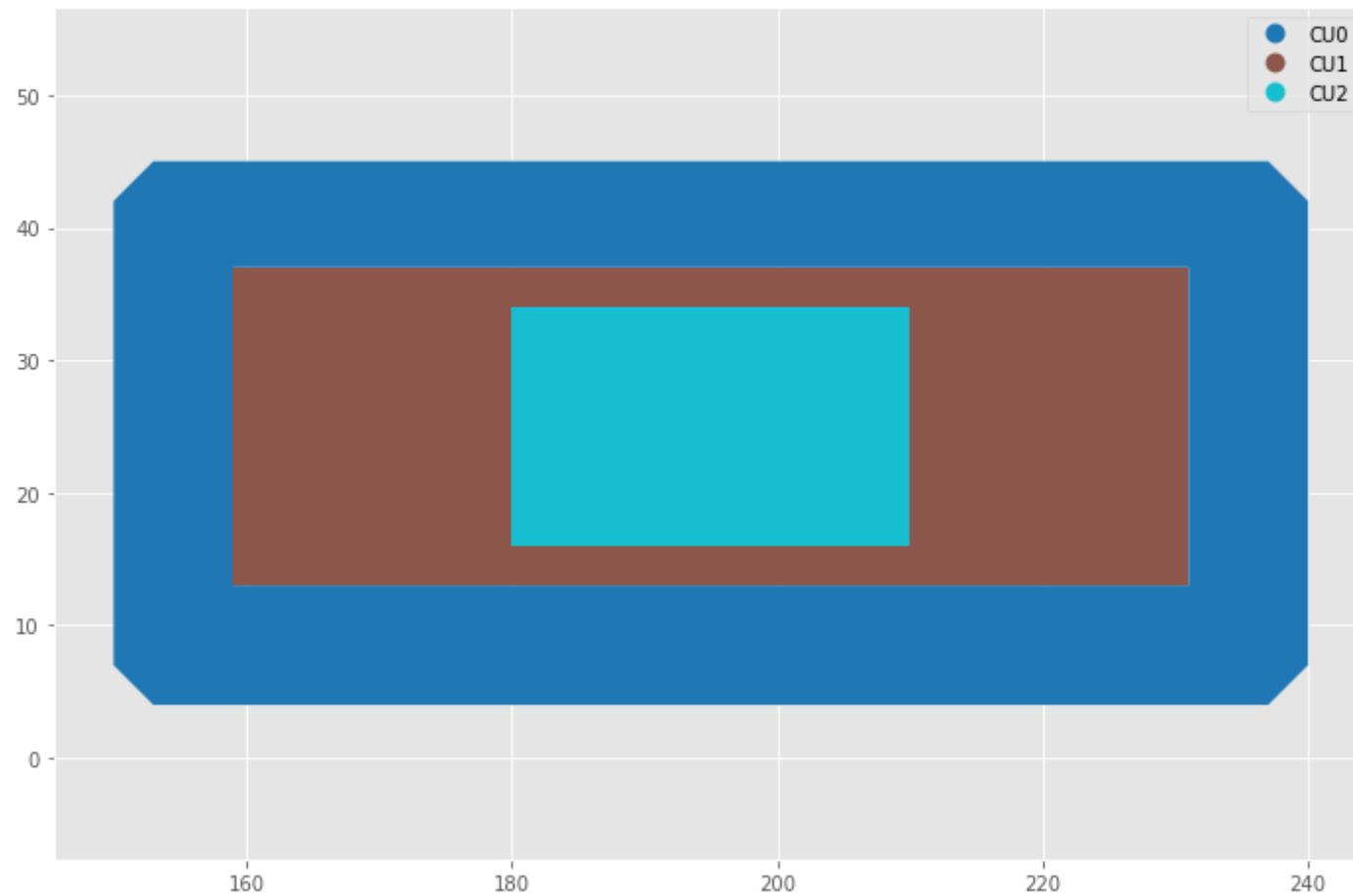
Out[15]: True

In [16]:

```
plotGDF(queryAll_LR(),'lrr_title_number','Registered rights in the Cadastre by Cadastral Unit')
```

Out[16]: ()

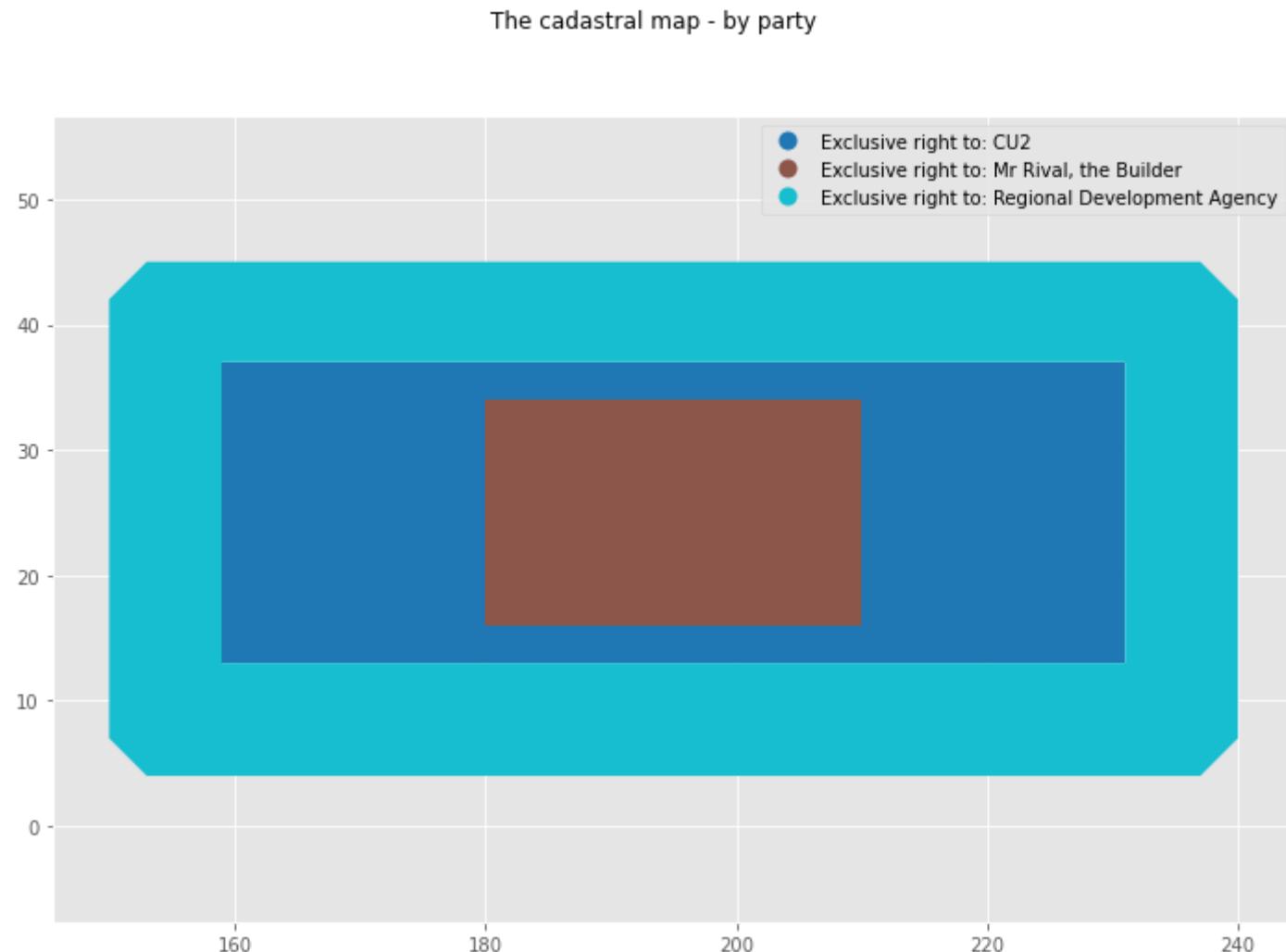
Registered rights in the Cadastre by Cadastral Unit



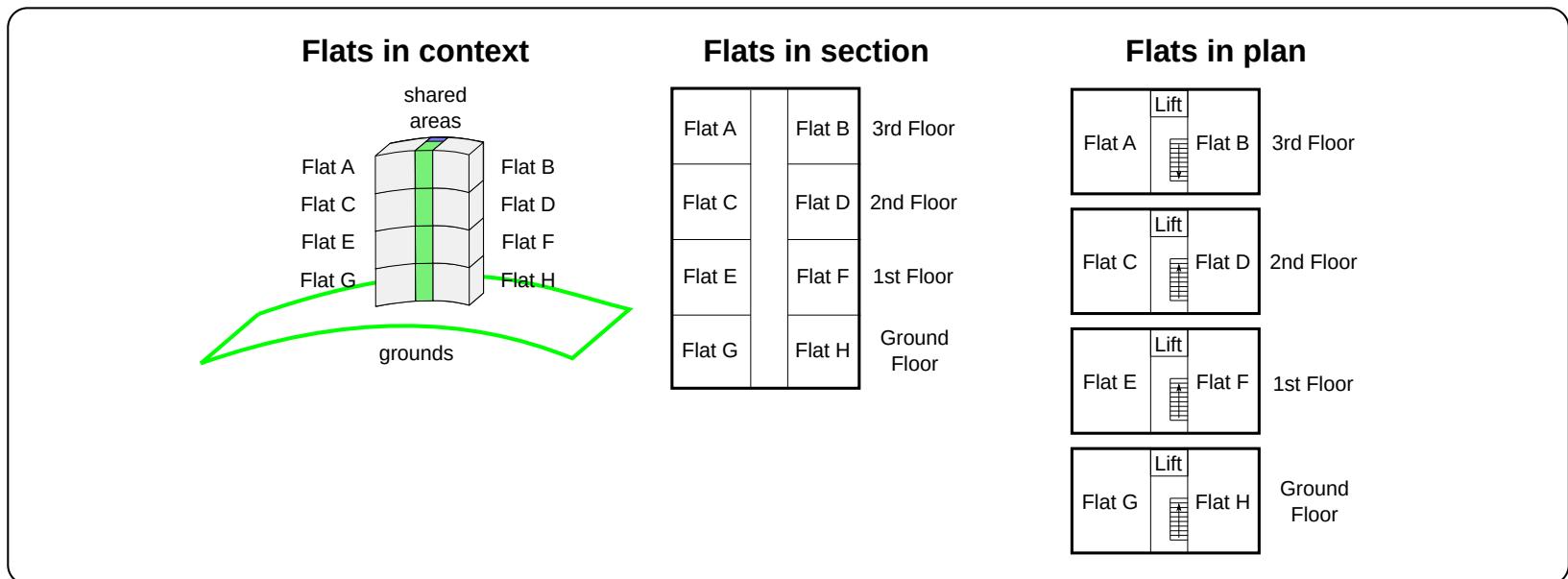
```
In [17]: plotGDF(queryAll_LR().head(20), 'right_holder', 'The cadastral map - by party')
```

```
#plotGDF(queryAll_LR(), 'lrr_title_number', 'Registered rights in the Cadastre by Cadastral U
```

```
Out[17]: ()
```

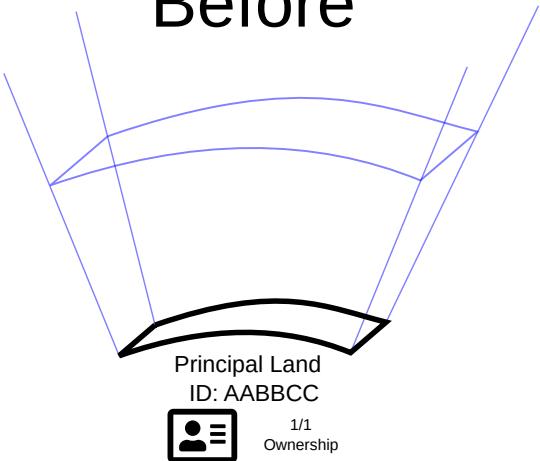


build then alienate each flat from CU2 resulting in CU3-10 (and the lift space CU11)

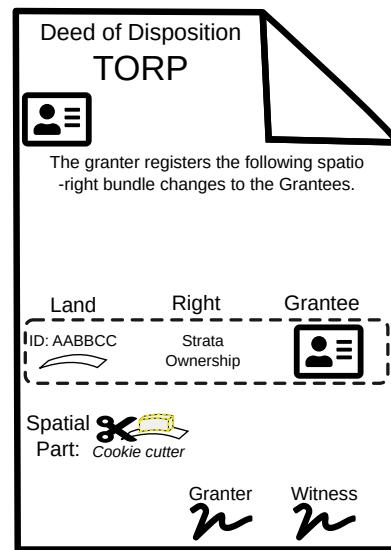


A transfer of right part

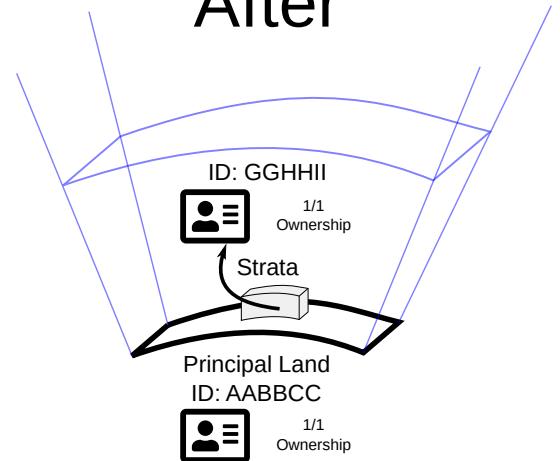
Before



Deed
(change)



After

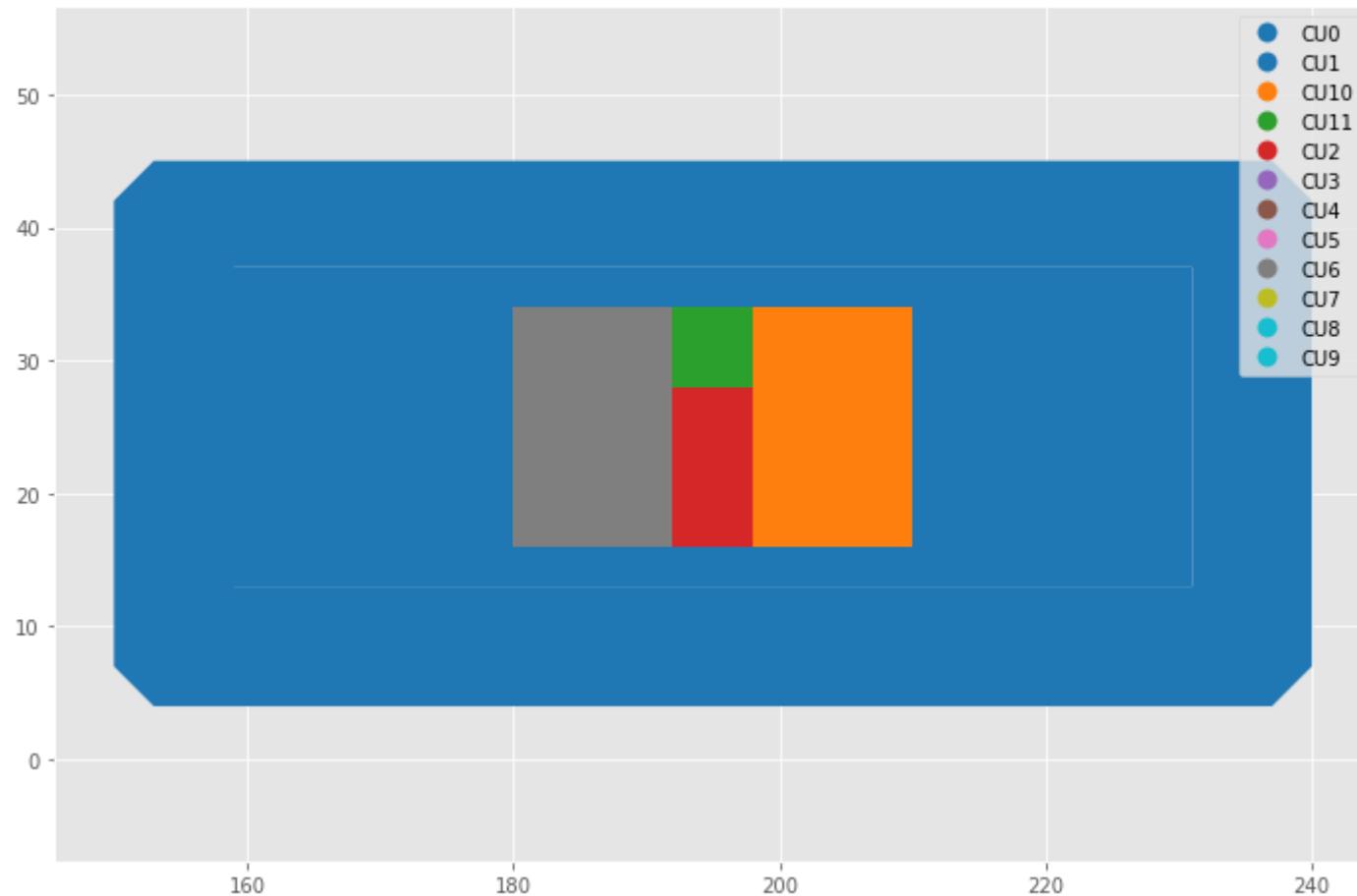


In [19]:

```
plotGDF(queryAll_LR(),'lrr_title_number','Registered rights in the Cadastre by Cadastral Unit')
```

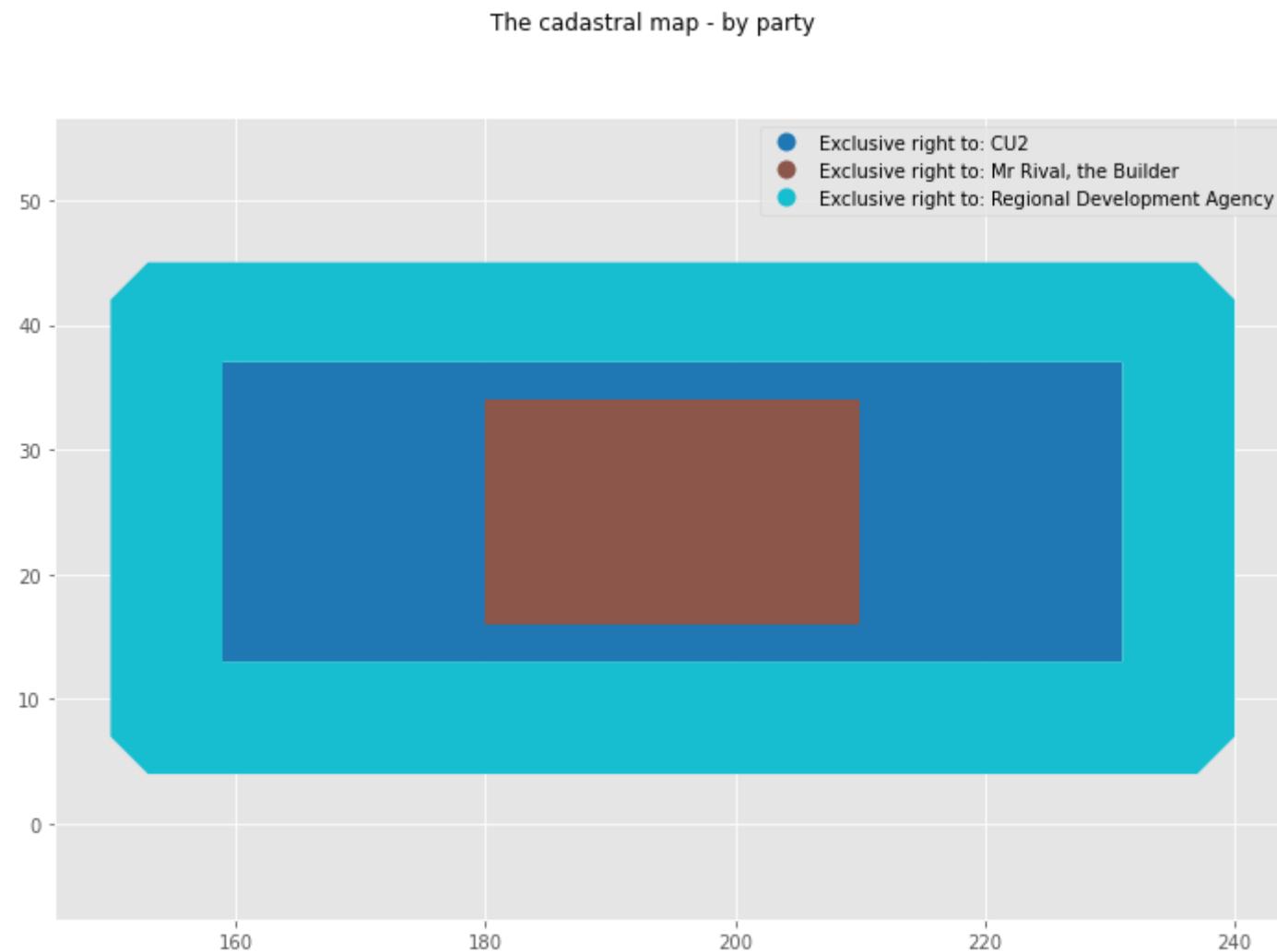
Out[19]: ()

Registered rights in the Cadastre by Cadastral Unit



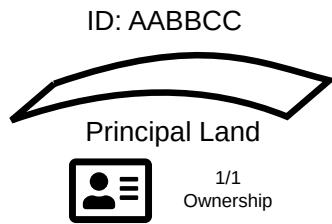
```
In [20]: plotGDF(queryAll_LR().head(20), 'right_holder', 'The cadastral map - by party')
```

```
Out[20]: ()
```

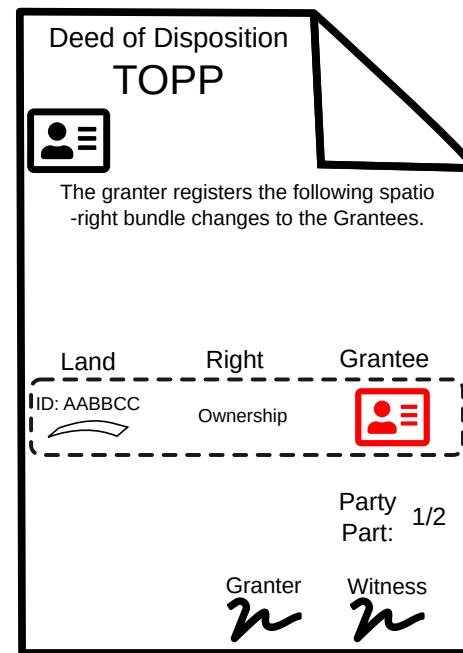


Transfer a 1/8 owned share of CU2 to every flat (CU3-10).

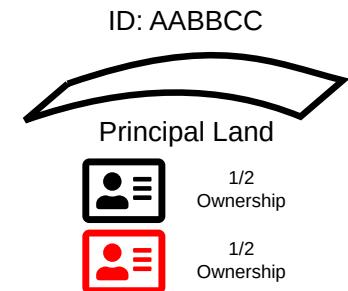
Before



Deed
(change)



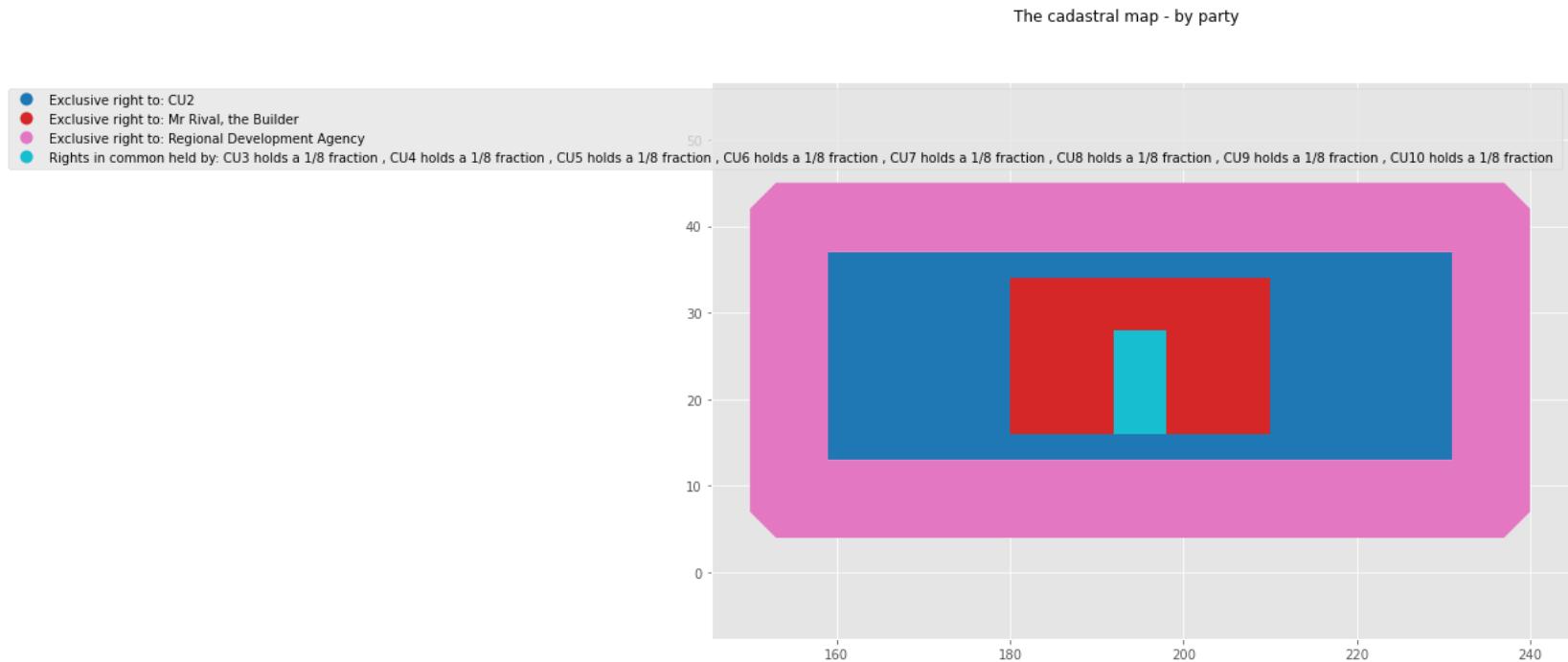
After



In [22]:

```
#plotGDF(queryAll_LR(),'lrr_title_number','Registered rights in the Cadastre by Cadastral Unit')
plotGDF(queryAll_LR().head(20),'right_holder','The cadastral map - by party')
```

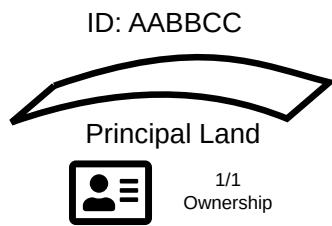
Out[22]: ()



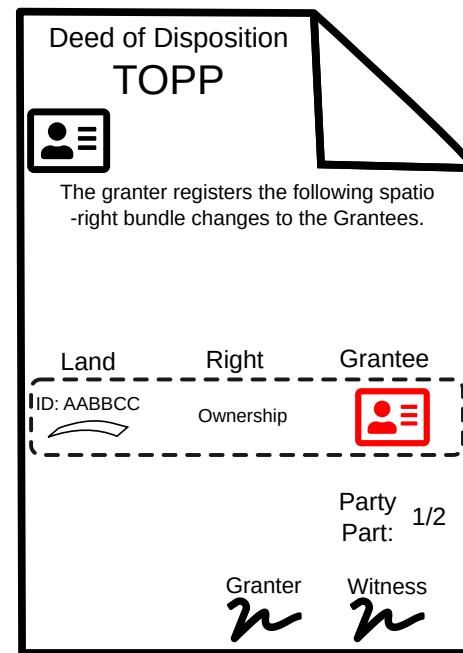
- CU2 is now owned in common by the owners of the flats (which, at this stage, are still all owned by the developer). Hence, the flats are the owners in common of the *shared areas* in the flatted building.
- Alternatively the body corporate could own CU2 in trust for every flat.

transfer a 1/6 owned share of CU11 to the upper flats.

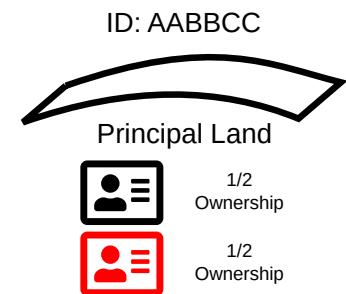
Before



Deed (change)



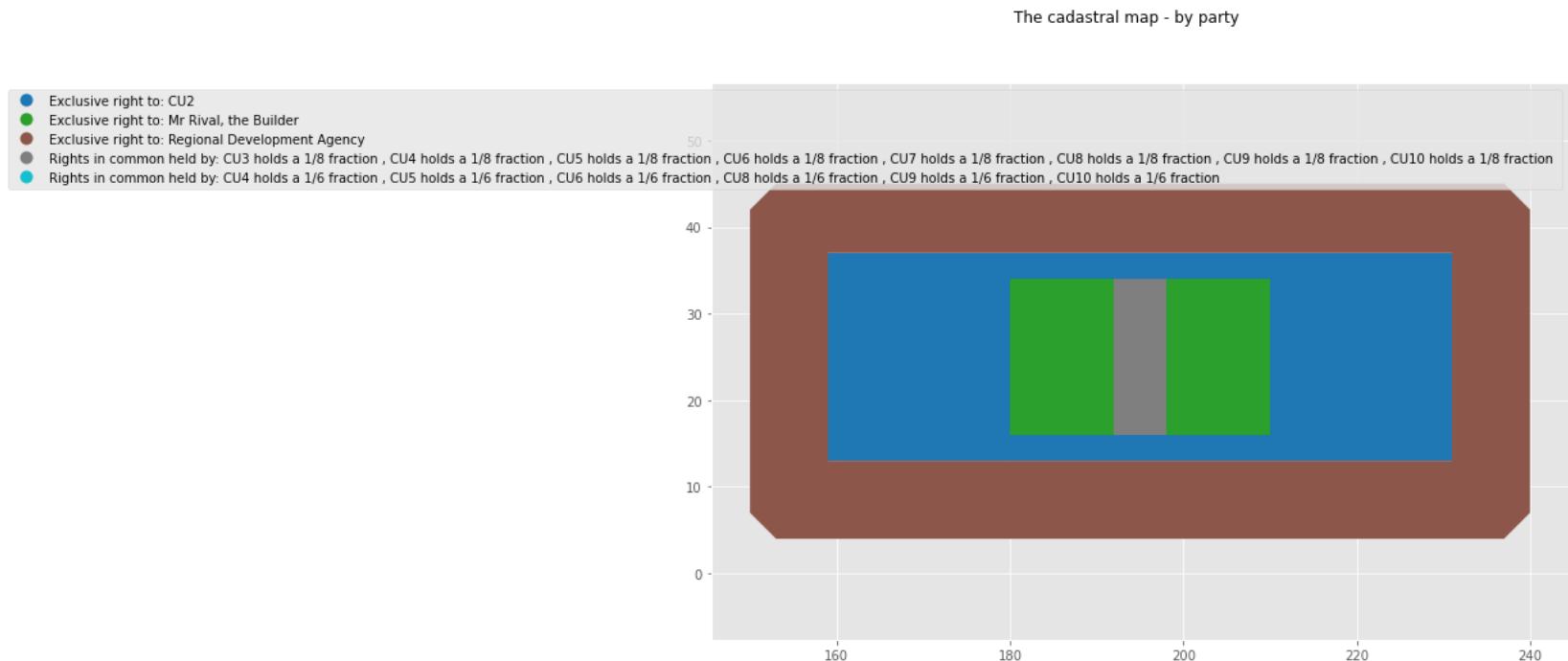
After



In [24]:

```
#plotGDF(queryAll_LR(),'lrr_title_number','Registered rights in the Cadastre by Cadastral Unit')
plotGDF(queryAll_LR().head(20),'right_holder','The cadastral map - by party')
```

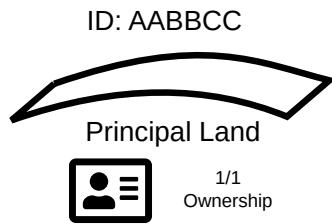
Out[24]: ()



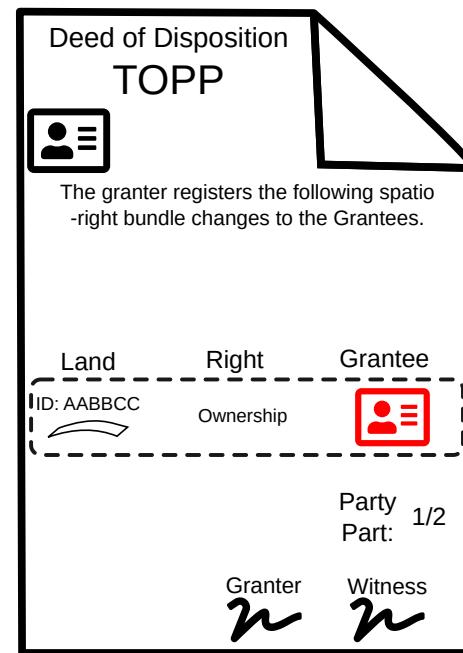
- CU11 is now owned in common by the owners of the non-ground floor flats (which, at this stage, are all owned by the developer).

transfer ownership of each flat (CU3-10) to a third party.

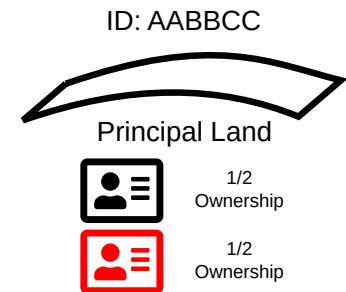
Before



Deed
(change)



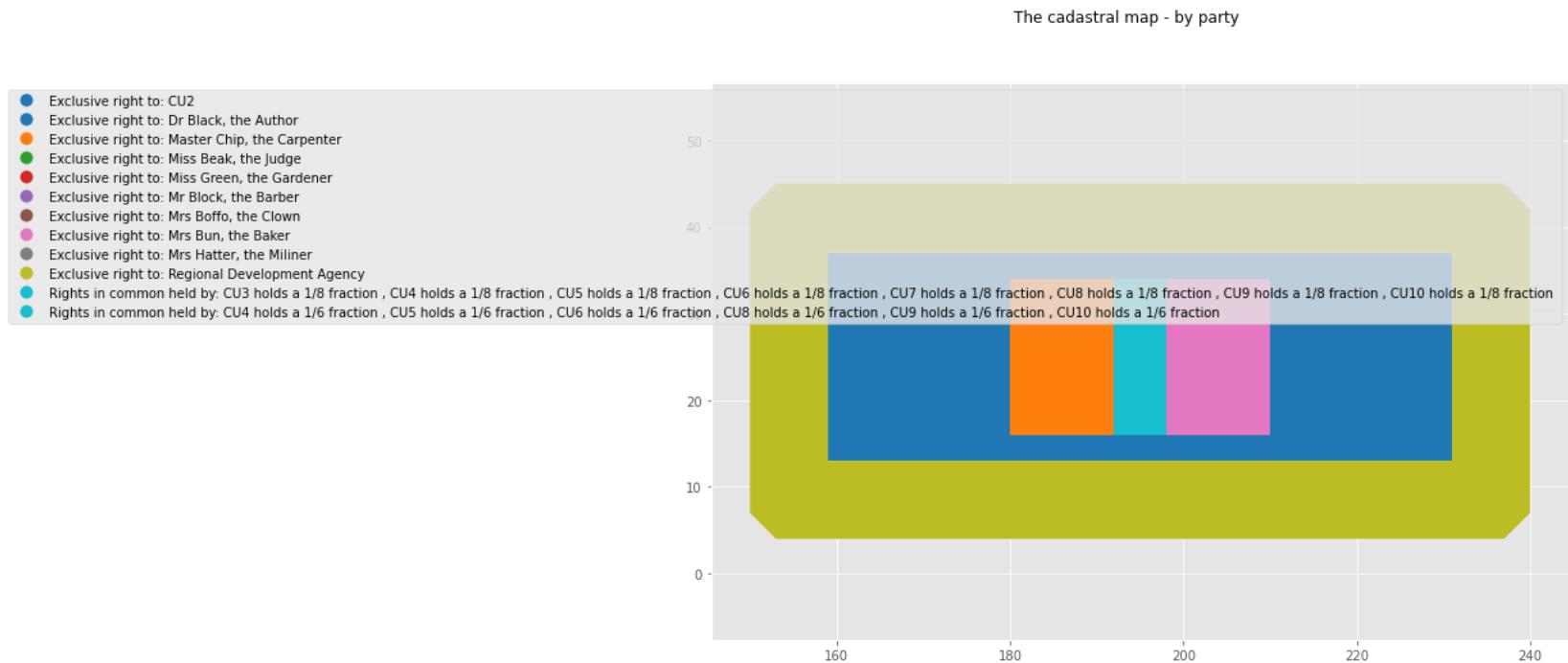
After



In [26]:

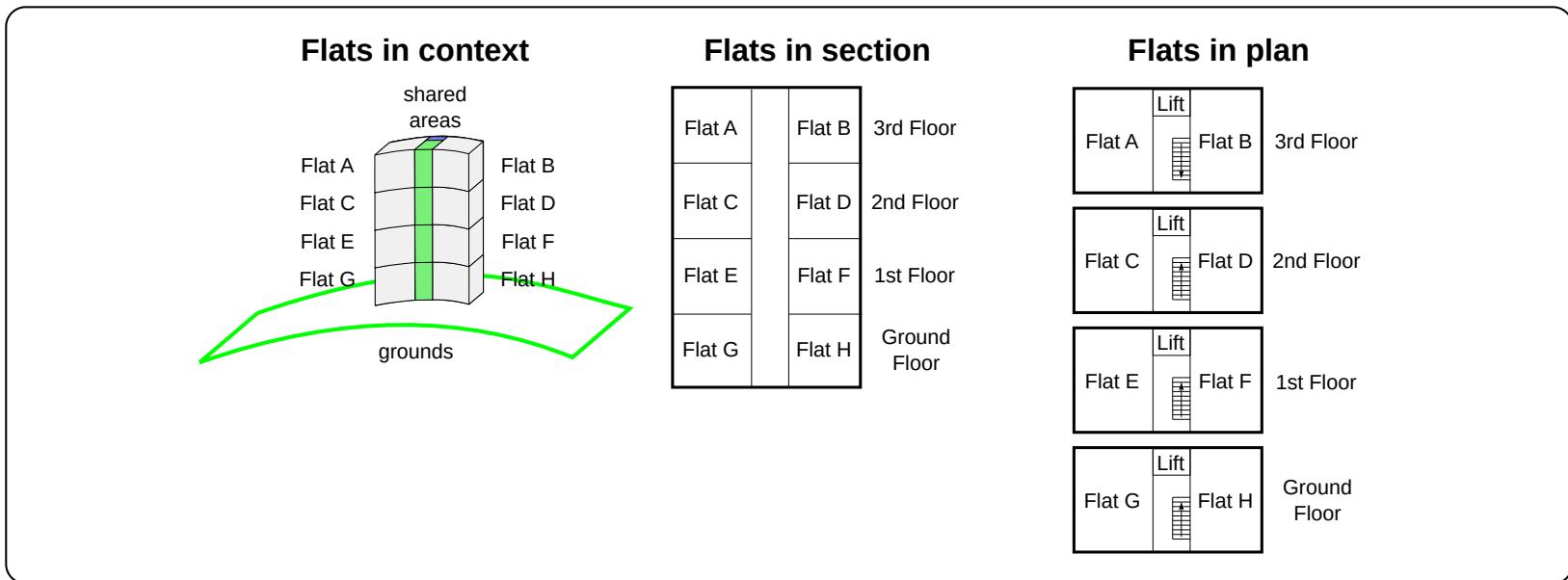
```
#plotGDF(queryAll_LR(),'lrr_title_number','Registered rights in the Cadastre by Cadastral Unit')
plotGDF(queryAll_LR(),'right_holder','The cadastral map - by party')
```

Out[26]: ()

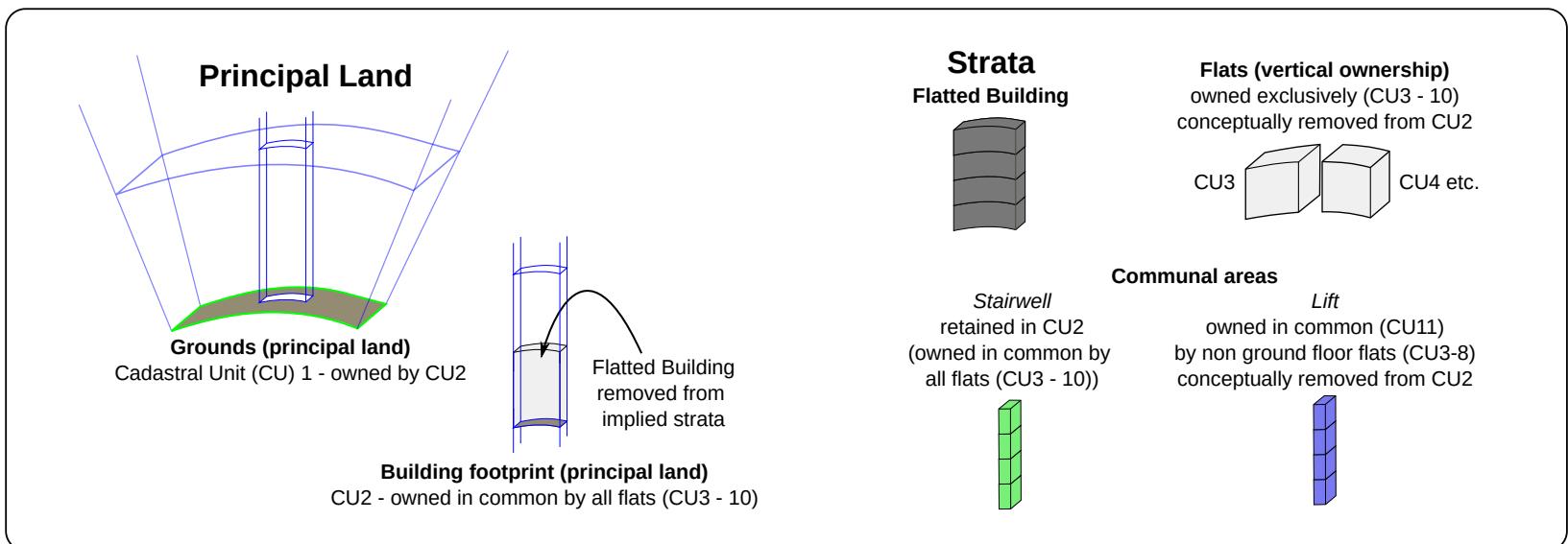


- The developer now no longer holds any legal interest in the development.

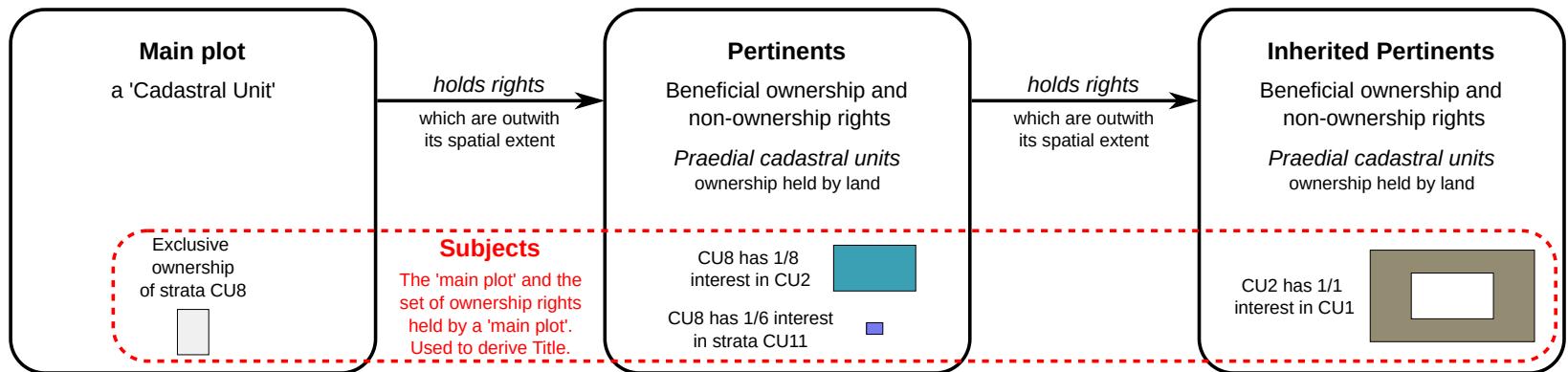
Overview



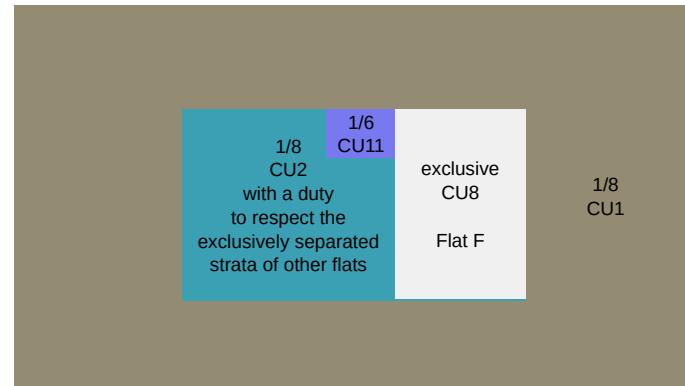
Overview



Title derivation



Spatially collated subjects based around CU8



Deriving Title

In [27]:

```
dfTitleSeed,dfPertOwnership,dfPertBenefits,dfSecurities,dfEncumbrances=queryTitle('CU8') #Up
#dfTitleSeed, dfPertOwnership, dfPertBenefits, dfSecurities, dfEncumbrances=queryTitle('CU7') #g
```

Main Plot for title {{dfTitleSeed.lrr_title_number[0]}}

Owner: {{dfTitleSeed.right_holder[0]}}

Verbalised title: {{dfTitleSeed.lrr_verbalised_title[0]}}

Cadastral unit {{dfTitleSeed.lrl_cadastral_unit_number[0]}} representing

Right	Right Modification
{{dfTitleSeed.lrr_right[0]}}	{{dfTitleSeed.lrr_right_modification[0]}}

described by: {{dfTitleSeed.plot(column='lrr_right', categorical=True, legend=True, figsize=(15,5))}}

Ownership Pertinents

Right	Right Modification	CU no	Fraction
{{dfPertOwnership.lrr_right[0]}}	{{dfPertOwnership.lrr_right_modification[0]}}	{{dfPertOwnership.lrl_cadastral_unit_number[0]}}	{{dfPertOwnership.lrrr_fra
{{dfPertOwnership.lrr_right[1]}}	{{dfPertOwnership.lrr_right_modification[1]}}	{{dfPertOwnership.lrl_cadastral_unit_number[1]}}	{{dfPertOwnership.lrrr_fra
{{dfPertOwnership.lrr_right[2]}}	{{dfPertOwnership.lrr_right_modification[2]}}	{{dfPertOwnership.lrl_cadastral_unit_number[2]}}	{{dfPertOwnership.lrrr_fra

```
 {{dfPertOwnership.plot(column='lrl_cadastral_unit_number', categorical=True, legend=True, figsize=(15,5))}}
```

Encumbrances (restrictions and responsibilities) - one for each spatial deed

Not implemented - but a spatial/party query that articulates any other sub-ownership rights exclusively held by third parties that restrict the shared ownership.

Right	Right Modification
{{dfEncumbrances.ar_right[0]}}	{{dfEncumbrances.ar_right_modifier[0]}}
{{dfEncumbrances.ar_right[1]}}	{{dfEncumbrances.ar_right_modifier[1]}}

```
 {{dfEncumbrances.plot(column='ar_right', categorical=True, legend=True, figsize=(15,5))}}
```