

Power, Urban Landscape Units and Boundaries: a Case Study of the Urban Historical Conservation Areas in Cardiff, Wales

by Luchuan Deng
Peking University

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Abstract: With a closer look on Cardiff, the Welsh capital, this paper tried to make a deeper observation on the major cause that created differences between boundary of urban landscape units and urban historical conservation areas. Based on former studies, this paper noticed the influence of researchers and governments as agents in the demarcation of conservation areas, realizing that the delimitation of landscape units and conservation areas were two different processes, their creations cannot be the same. By comparing the boundary of conservation areas and the boundary of landscape units, it was clear to see the existence of pre-judgement and standards made by agents on urban heritage. With the interaction of agents as power owners, the boundary made at last was largely a compromise, different from any boundary raised by individual agents. With this cognition, the paper made attempt on building up an extended two-agent model to further explain the boundary issue.

1. Introduction

In J.W.R.Whitehand (2009)'s published work, the issue of boundary was first made clear in the realm of urban morphology. Whitehand noticed the difference existed in boundary of conservation areas and landscape units, and he attributed this to the weak grounding in research on urban form. Before his study, Hiske Bienstman (2007) discovered that planning agencies could stretch the boundary of conservation areas decided by scholars in order to include certain buildings with less historical value. Peter J. Larkham (2011) made a major contribution on the boundary issue, pointing out the difference on the process of deciding boundaries. The delimitation of conservation area was regarded as a political process while the deciding of landscape units as academic process. In this way, boundaries created by them couldn't be the same. Moving a little bit ahead from Larkham, it was sensible to regard boundaries not as objective existence but subjectively decided by agents. And the boundary of urban landscape units could be seen as the researcher's boundary, as was described in Whitehand's (2009) paper.

Jones (2009) mentioned that boundaries were decided by power to create order in certain areas. In deciding conservation areas, researchers or governments as agents could be seen as power owners hoping to maintain a certain order for their own purpose. In practical examinations,

agents' purposes were externalized as different pre-judgements and standards, under which different boundaries were created.

Since boundaries were created by power, it was reasonable to assume that the delimitation of conservation areas, with more than one agents participating, could be a process of power interaction. A standard frame of policy-making on conservation areas could be a three-agent model, including not only the researcher and the government, but the private property owners as well. However, due to the lack of date, this paper was only able to build up an extended two-agent model, including only researchers and governments. Agents were further considered with different levels of power, creating sub-agents of certain type. In a two-agent model, negotiations among agents could be the main path to balance the interest of them, so that a boundary that was acknowledged by everyone could be created. In this way, individual standards and pre-judgement were integrated and transformed into spatial order that could be different from any one of the boundaries raised by agents.

This paper used Cardiff city centre as a case study to reveal the practical path through which processes listed above take their effect. The Cardiff city centre was defined by Carter and Rowley (1965) as region limited by the railway to the east and south, the Castle and the Bute Park to the northwest and the civic centre to the north. However, this was only the boundary of the economic centre. Considering the political centre and important communities, the region of city centre could be a bit further north, including parts to the north of Boulevard De Nantes towards Blackweir Terrace.

2. Methodology

This paper applied the methods of Conzenian School of urban morphology to study the morphological features of boundaries in Cardiff. The paper analyzed the large scale topographical maps of Cardiff (mostly the ordnance survey and the insurance plan) and did a plot-by-plot survey in certain areas. Besides, literature on the history of Cardiff, Wales and UK were also carefully observed, together with British laws on urban heritage conservation and planning documents established by Cardiff Council. The conservation group of Cardiff Council offered crucial information to the researchers as well.

3. Analysis/Results

3.1. *The history and geography of Cardiff*

Situated on the north bank of the Bristol Channel, Cardiff has one of the best ports in South Wales. To the north of the city was the Brecon Beacons Mountain, and to the east and west was a long narrow corridor of plains by the sea. In the ancient times marshlands existed around Cardiff, making it hard for agriculture to develop (J. F. Rees *et al.*, 1960). However, the location of Cardiff by the river Taff made the Cardiff region just fit for invaders to build fortress. As a result, Cardiff was used as strongholds of invaders or colonizers instead of local rulers. Romans, Anglo-Saxons and Normans came from the sea and became masters of Cardiff one after another. Only when the discovery of coal in Victorian times did the driving force supporting the development of Cardiff changed from the sea to the mountain.

From 75 A. D. till 410 A. D. Cardiff was occupied by Roman Empire. The predecessor of Car-

diff castle was built in this time as a Roman fortress. After the retreat of Roman legions, Cardiff was desolated and residents disappeared (D. Morgan, 1991). When the Normans conquered Cardiff in years around 1080, a new fort was built with a wooden Keep inside the ruins of the Roman fortress. The Cardiff Castle was later developed near the Norman Keep, and a small market town next to the castle started to grow.

Limited by the geographical condition of Cardiff, the development of market town relied greatly on the stability of Cardiff Castle. In history the town grew when there were new invaders using Cardiff Castle as base for colonization and declined when native people successfully destroyed the castle. This regular process brought little development, neither physically nor economically, to the self-ruling borough (D. Morgan, 1991). Cardiff didn't receive any opportunity for development before the discovery of coal. From Figure 1 it was clear that development in the Victorian times contributed largely to the total development of Cardiff. In 19th century the population grew from 1801 in the year of 1800 to 300,000 in 1900 (J. F. Rees *et al.*, 1960).

3.2. Conservation areas in Cardiff city centre: boundary raised by government

Currently there were 6 conservation areas in Cardiff city centre. The earliest conservation areas were decided in 1975, namely the Windsor Place Con. Area and the St Mary Street Con. Area. In 1978 the largest conservation area 'the Cathays Park Con. Area' was decided to the north of them, including the political centre of Cardiff and large plots in the north. Charles Street Con. Area was decided in the year 1988, and the Churchill Way Con. Area was decided in 1991. In 1992 the latest conservation area in Cardiff city centre was decided as the Queen Street Con. Area. Their boundaries were published on Cardiff Council's website and were shown in Figure 2.

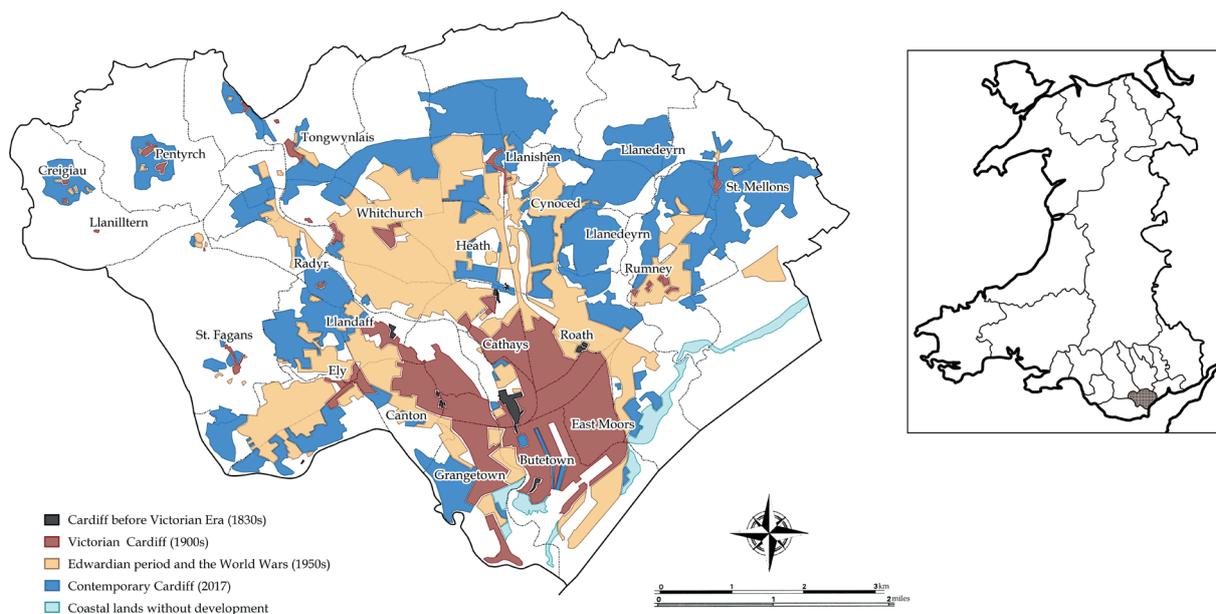


Figure 1. The location of Cardiff in Wales and its historical development. Based on Ordnance surveys of 1830, 1900, 1950 and the 2017.

3.3. Landscape units in Cardiff city centre: boundary raised by scholar

With a morphogenetic study on the landscape units in Cardiff, this paper created eight individual landscape units in Cardiff city centre. The main consideration in deciding landscape units were the authenticity and integrity of the landscape, while paying attention not to let the boundary of landscape units cutting through individual plots. These boundaries, to a certain extent, could be seen as the researcher's boundary of conservation areas.

The oldest landscape unit in Cardiff city centre except the castle was the Medieval Core ('I' in Figure 2). It was formed before Victorian times, stretching from the south gate of the Castle to Cardiff Central station. The area was used to be wall-protected, with four gates on each side of the walls. As can be seen in Figure 2, most of the plots or burgages before Victorian times situated in this area. However, since the great constructions brought by the Victorian period, there were few architectures before Victorian survived. In general, plots with ancient structure and the Victorian style buildings formed the unique landscape in the Medieval Core.

To the east of the Medieval Core, a new commercial street developed in days of the 19th century. Queen Street, as the name read itself, gained its importance thanked to the increase on population flow between London and Cardiff. Rapid development in Victorian times didn't actually destroy the plot structure; instead, many long-tail burgages were left unharmed on the north side of the street. The only unfortunate thing was that the once detached buildings on these plots were integrated into modern shopping centres in 1960s and 1970s (W. M. F. Grey *et al.*, 2003). Currently only the façade of old buildings could be seen. Even though, the medieval core and the Queen Street area were still regions where pre-Victorian plots existed and Victorian architectures remained, at least partly. Given the fact that most of the Victorian architec-



Figure 2. The 8 landscape units (left) and the 6 conservation areas (right) in Cardiff city centre. Based on the ordnance survey, the field research, the google's 3d model of Cardiff and the documents of Cardiff Council.

tures in Cardiff city centre had been demolished, these two areas could be most valuable for protection.

In later Victorian, the city started growing on the north and south side of Queen Street (H. Carter and C.R. Lewis, 1990). With wealthy people moving eastwards, in regions around Queen Street a number of detached and semi-detached houses were built. These houses were used as villas, commercial offices and wholesale, according to Carter (1965). In 1940s the Victorian houses extended all the way towards the Taff vale railway, yet only a small number of them survived. To the south of Queen Street only blocks on Charles Street, Guildford Crescent and Churchill Way were left unharmed. To the north of Queen Street more houses survived, mostly around the St. Andrew's Crescent, Park Grove and Colum Road. The four blocks in which the Victorian plots and houses still survived became an individual landscape unit. It was shown on Figure 2 with number "IV".

In the Edwardian years, the city built up its political centre in Cathays Park (D. Morgan, 1991). This area, the Civic Centre, was a new unit with large-scale Victorian and Edwardian buildings. The Cardiff city hall, the law court and the national museum of Wales were the most important landmarks and monuments in south Wales. On the east and north part of the Civic Centre situated the Welsh National government and Cardiff University.

In the later part of 20th century, the city experienced major reconstruction during which most Victorian blocks were destructed. The region to the southeast of Medieval Core experienced major change, with plot structure completely destroyed. Currently this area was filled with large shopping malls, hotels as well as stadiums, forming a unique landscape type. The construction of the St. David's shopping mall had the most profound influence on urban form, clearing all the remnants of the Victorian plots and houses. Fortunately, in the construction of Queen's arcade some of the features of plots were retained, leaving the north part and the south part of the Queen Street landscape unit still an entity. The landscape units of shopping malls and stadiums were shown as number "VI" in Figure 2.

The area to the west of the Medieval Core were lands gained from changing the course of Taff in 1850 and the south part of it was used to be filled with Victorian houses. After World War II the south part was transformed into the commercial centre and business zone where skyscrapers rise from the Victorian soil. The north part of this area had been used as playgrounds, sports fields and parks since 1850. In the last few decades of 20th century, the Principality Stadium was built to replace former fields. The constructions both on north and south part of the 'newly gained area' increased its building intensity. The large-scale-glass-covered skyscrapers or Principality Stadium that could sit millions of people gave out ethos different from the Victorian plots and 2-6 story buildings next to it. In area to the east of the Cardiff Castle the same story happened. Around the Capital Tower another business zone formed where head offices of international corporations situated. These two business zones, forming the so-called CBD of Cardiff, had very limited remains of the old structure.

Regions to the north of Colum Road was developed by colleges of Cardiff University in recent years. With large scale complex buildings, they were different largely from the Victorian houses next to them. This region was confirmed as an independent landscape unit, numbered as "V" in Figure 2.

Cardiff Central station was a special region in the study. It had Victorian plot structures and was rebuilt in 1932, but because of its special land use, the plot structure of Cardiff Central station was greatly different from other Victorian plots in Cardiff. As a result, area around the station was divided as a single landscape unit.

Landscape units above were decided under specific judgement and standards made by researchers. Boundaries were decided not to cut through plots, and when it came to streets, this

paper followed the instruction of Whitehand (2011). Boundaries would go through the middle of the streets if the plots on neither side were created as part of the street, or boundaries of landscape units may go along the boundary of certain plots.

3.4. Comparing the boundary raised by government and researcher

Comparing the boundary of landscape units and the conservation areas led to the discovery of different standards and pre-judgements of agents. Apparently, differences existed in regions below: Queen Street, Colum Road, Windsor Place, Charles Street and Cathays Park.

In Queen Street Con. Area, the boundaries were different in two ways. First, the northeast part of the Medieval Core was included in Queen Street Con. Area instead of the St Mary Street Con. Area, where the other parts of the Medieval Core was situated. This was because the consideration made on the re-development of Queen Street as the “image of Cardiff”. In order for a more completed development of Queen Street, the conservation group left the northeast part of the Medieval Core out of the conservation area in 1975 so that there wouldn't be too much regulations and obstacles on the development project. Second, the south boundary of the Queen Street Con. Area looked very different from the landscape units, cutting through several integrated plots of the shopping mall. The conservation group of Cardiff Council made few explanations on these issues during interview, but it may be understandable that this, similarly, had something to do with the regeneration of Queen Street as a whole. By the way, the need for ease on management might also lead to the acceptance of a simpler boundary of the conservation area. The conservation group hoped the boundary of conservation areas easy to handle, or there may be extra “administration effort” required. For this reason, the boundary of conservation areas could be different from the boundary of landscape units.

In Colum Road, the point was whether the conservation area should include the Victorian houses on both sides of the Colum Road. These buildings were built earlier than houses on Queen Anne Square, sharing the same building features with houses on the east side of North Road (A470) which were included in the Cathays Park Con. Area. At the Blackweir Farm Cottages, the boundary of conservation area went through the middle of the region, including only the Victorian farm houses while cutting the building Ambulance Depot apart. It was unsure if this was the actual location of the boundary or the technical problem since there were no explanations made by the authority.

In Windsor Place Con. Area, the main conflict existed on whether to include the regions to the north of St. Andrews Place. Regions to the north and south of the St. Andrews Place were built almost at the same time, with similar plot structures and building fabrics, which could be seen on Figure 2. However, the north part was divided into the Cathays Park Con. Area, while the south part in the Windsor Place Con. Area. This was caused by the time conservation areas decided. Since the Windsor Place Con. Area was one of the oldest conservation areas decided in Cardiff city centre, the decision made by conservation group at that time could be under a certain cognitive limitation. The south part might be regarded as more valuable at that time so that the Windsor Place conservation area included only the south part. In later reviews, there might be voice calling for an alteration on the boundary, but the conservation group made to retain for reasons of “consistency and to reduce the administration effort required to change them”.

In Charles Street, things were a bit complicated. The boundary of conservation area did not parallel with the boundary of landscape units and included a place to its south where a new skyscraper was being built. The construction of the new skyscraper was granted in the year 2016,

before then the plot on the southernmost of the Charles Street Con. Area included small plots owned by different entities. The boundary of the conservation area was aimed to avoid including the plot owned by the Great Western Estates Limited. Though the real cause was unclear, it could be possible that this was the compromise reached by negotiation between the council and private property owners.

In Cathays Park Con. Area, problem existed in the region to the east of the castle. The plot between Kingsway and The Friary was included in the Cathays Park Con. Area. However, there situated the Hilton Hotel, which was largely modern styled with the height of 30 metres. The conservation group suggested it might be historic reason to divide that plot into the conservation area, and since the difficulties for alteration, the boundary remained.

By analyzing the differences between boundary of conservation areas and landscape units, it was clear to see that these two boundaries were different once they were put forward. The pre-judgement and standards made by planning agencies and researchers as agents were different. For the case of Cardiff, the conservation group focused on the ease for management and the development and regeneration of blocks. Queen Street, though one of the old regions in Cardiff city centre, was the last in Cardiff city centre to be listed as conservation area. The scholars regarded the authenticity and integrity of historic blocks as most important. Admittedly they were only power owners deciding boundaries, they tried to make the boundaries of landscape units reach the 'fact'. With different judgement and stand points on heritage, the boundaries created by agents couldn't be the same. That was to say, even before the negotiation, the boundaries made by government could differ from what scholars created. And the negotiation following would further make the boundary different from the original one raised by scholars.

3.5. More agents with different level of power: extending the two-agent model

By observing the difference of boundaries of landscape units and conservation areas, this paper made it clear using the simple two-agent model to explain the boundary issue. However, extending this model to include governments with different levels of power could make things more interesting. With the participation of more governmental agents, the boundary raised by government could be changed greatly.

The paper considered using the listed buildings in Cardiff as an example. In UK, listed buildings as a certain kind of conservation area had two levels: the statutory listed building and the locally listed building. Both were aimed at the protection of buildings with historical significance, but the former decided by national government while the latter decided by Cardiff council. In deciding statutory listed buildings, it was local government who submit lists of certain buildings and the Welsh ministers who made the decision whether or not to enlist the buildings. Welsh Ministers were granted the power to decide and compile the buildings that "are of special architectural or historic interest" (23 *Historic Environment (Wales) Act*, 2016). However, when deciding locally listed buildings, local government of county or town did not need to inform national government and could decide at its own will. In the planning guidance of UK department (*National Planning Policy Framework*, Ministry of Housing, Communities & Local Government, 2019) and Wales department (*Planning Policy Wales*, Ministry of Environment, Energy and Rural Affairs, 2018), local governments were empowered to enlist "historic assets of special local importance" (*Planning Policy Wales*, 2018). Local governments could even choose whether or not to list locally listed buildings. In Cardiff, the council have made the decision to establish Locally Listed Building for "locally significant architectural or historic interest to be recognized within the planning system" (Cardiff Council, 2019). By the way, researchers in

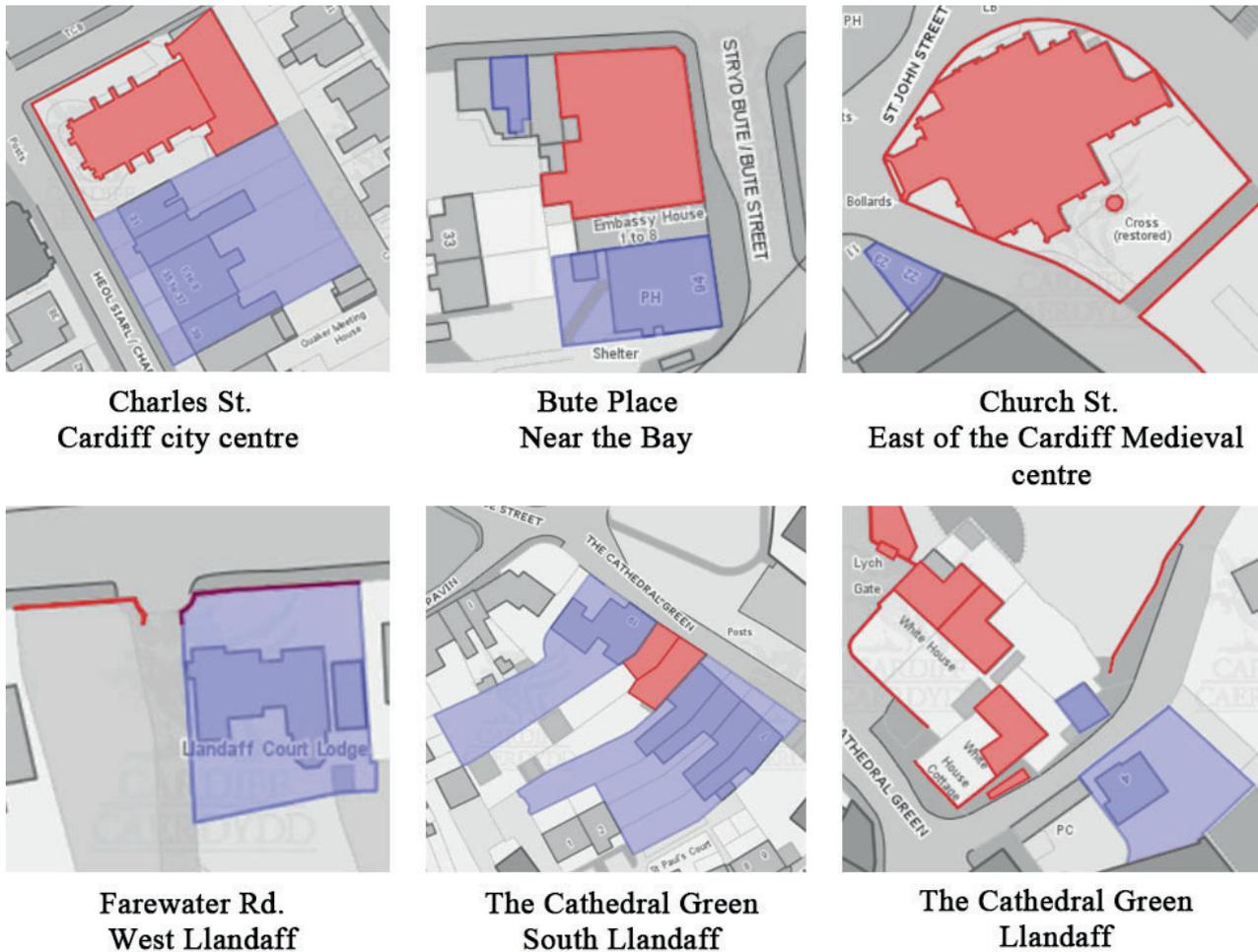


Figure 3. Statutory listed building (red) and locally listed building (blue) in different part of Cardiff. Based on maps offered by Cardiff Council, 2019.

Cadw (the Historical Environment of Wales) also took part in deciding the boundary of listed buildings (Advisory Panel for the Welsh Historic Environment, 38 *Historic Environment (Wales) Act*, 2016). In this way, the national government and local government acted as sub-agents in the policy-making process deciding the boundary of statutory listed building. Their boundaries integrated as the boundaries raised by the “government”, which would be discussed between government and scholar in the following policy-making process. For locally listed building, there was still the simple two-agent model.

Since statutory and locally listed buildings may locate as neighbors in Cardiff, their social-economic environment could be almost the same. Consequently, it could be sensible to assume that the only difference between the policy-making processes of these two kinds of conservation areas was whether there were sub-agent existing in the decision making process.

Practical evidence confirmed the influence of sub-agent on boundaries. In Cardiff, statutory listed buildings had much stricter boundaries than their local counterparts. In the 1990's public general act which was also applicable in Wales, the boundary of statutory listed buildings was regulated as the boundary of the exterior walls of the building with objects fixed to it. Only in case of buildings earlier than 1948, could the boundary include object or structure in the curtilage (15), *Planning (Listed Buildings and Conservation Areas) Act*, 1990). As a result, the statutory listed buildings could be split from their own courtyards, walls and fences: in Cardiff, there

were walls, roads and bell towers confirmed as independent listed buildings, as was shown in Figure 3. However, there weren't any similar regulations made by Cardiff Council in deciding the boundary of locally listed buildings in Cardiff. In this way, boundaries of locally listed buildings went along the boundaries of plots, including curtilages of the listed building.

Though the yards of statutory listed buildings were not included in the boundary of protection, owners only had limited rights on making changes to them (5.10, Technical Advice Note 24: The Historic Environment, *Planning Policy Wales*, 2017). However, when restoring the statutory listed building or making change on them, owners could apply for finance support from the national government. It was unsure if there were the same support made by local government on locally listed buildings. In order to save money, the national government may ask for stricter boundary of listed building. For local government, since they were only partly responsible for the protection and finance of statutory listed building, they could stay mutual for this issue. Consequently, the government's boundary itself could be changed if there were governments with different level of power as sub-agents. This could be seen as the extended two agent model, with national and local government as two sub-agent under the type of 'government'.

4. Conclusion

The inclusion of agents in the policy-making process helped to explain the boundary issue. Using Cardiff as a case, this paper built up an extended two-agent model considering the demarcation of conservation areas. Boundaries were first created by agents under different judgement and standards, making them different with each other. Then through the process of negotiation and compromise, original boundaries raised by individual agent got integrated to the final boundary of the conservation area. The interaction of power through the negotiation process made it impossible for the final boundary looking identically as original boundaries raised by agents. That's why the boundary of conservation areas looked different from boundary of landscape units.

Besides, agents in the two-agent model could be split into sub-agents with different levels of power. Before the final negotiation, there might be negotiations between national government

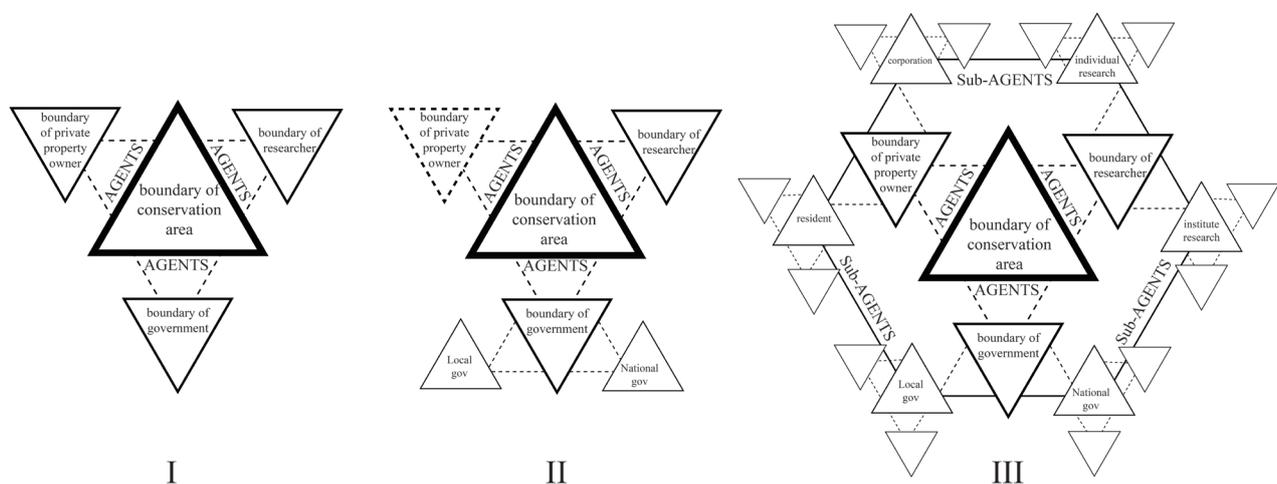


Figure 4. *I. Standard three-agent model; II. The extended two-agent model; III. The Infinite three-agent model.*

and local government as sub-agents. Scholars with different disciplines of study could also discuss with each other on the boundary of landscape units. When considered the influence of private property owners, this could lead to the establishment of a fractal geometry frame of the infinite three-agent model, as was shown in Figure 4 (III).

The major contribution of this paper was the closer observation of the policy making in Welsh cities and the creation of the extended two-agent model of decision making. The paper used Cardiff as an example to confirm the explanatory power of the model. At here it may be important for the paper to reiterate the conclusion Larkham made that the deciding of landscape units and conservation areas were different processes. With this knowledge, creating new standards of boundaries of conservation areas as well as letting more agents taking part in the deciding of conservation area could be important for heritage protection.

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