

## INFLUENCE OF THE ITALIAN RENAISSANCE ON THE TOWN PLANNING CONCEPT IN THE SPANISH COLONIAL LAWS

**Akihiro KASHIMA**, Associate Professor  
Setsunan University, Japan  
a-kashima@m3.dion.ne.jp

**Takashi TANIMURA**, Professor Emeritus  
Hiroshima International University, Japan  
t-tanimu@it.hirokoku-u.ac.jp

**Tsuyoshi KIGAWA**, Fukui University of Technology, Japan  
kigawa@fukui-ut.ac.jp

**Masao FURUYAMA**, Vice-President, Doctorate  
Kyoto Institute of Technology, Japan

### ABSTRACT

*This paper attempts a comparative study, from the viewpoint of town planning, with the commonality and the difference of the Vitruvian thoughts and Albertian thoughts in *De re aedificatoria*, which are both the sources of the Ideal City in the Renaissance Italy and examine the characteristic of the town planning method developed in the Spanish colonial laws, the Ordinances of Philip II. The methodology of town planning in the Ordinances follow in the fragmentary solution for the planning and arrangement of plazas, streets, municipal facilities represented in the Vitruvian thoughts described in *De Architectura Libri Decem* and Albertian ideas in *De re aedificatoria*. In the Ordinances however, the regulations on the spatial structure of plazas and those extending streets from them in good order basically control the town's layout. Moreover, those regulations apparently provide the practical guidelines for the planning of principal plazas which form the town core and for the planning and arrangement of municipal facilities. Under the strong influence of the town planning concept in the Renaissance Italy, the Ordinances of Philip II transformed those methods to further practical and concrete town planning regulations, which strongly provide the planners with the visual image and concrete solution of town planning.*

### INTRODUCTION

Many of town planning experiments in the Spanish Renaissance period were carried out along with the new town settlements under the oversea colonial administration. The town planning concepts illustrated there have been attracting attention not only for its practicality but also for its correlation to the ideal cities in the Italian Renaissance. Parallel to the practice of town planning, the Spanish Royal issued many colonial laws, "*Leyes de las indias*", and provided regulations on town planning. The ideas in those regulations attract much attention for its influence on the modern town planning concepts also. For example, In the Expansion Plan of Barcelona(1859) by Ildefons CERDÀ (1816-76), Gravagnuolo points out the similarity with the criteria for town planning in the Spanish colonies rather than past examples of town improvement in Europe.<sup>1</sup>

Plaza planning and town layout of grid plan are outstanding criteria in the Spanish colonial town planning. These ideas are codified in the *Ordinances of Philip II* (1573)<sup>2</sup> and the codification of town planning regulations gave much influence on

<sup>1</sup> GRAVAGNUOLO, Benedetto (1998), *HISTORIA DEL URBANISMO EN EUROPA 1750-1960*, Akal Arquitectura, Madrid, p.58.

<sup>2</sup> This document is preserved in the Archivo General de Indias (A.G.I.) in Seville, Spain, the Document code: Indiferente General, legajo 427, libro 29, folios 67-93; the Document title: *Ordenanzas de descubrimiento, nueva población y pacificación*. This is a manuscript document written in the sixteenth century Castilian language, which extends for 27 pages of almost A4 size on both sides. It was issued on July 13th, 1573 by the King, Philip II. This code consists of 149 articles in all widely about three themes on the colonization of the Indies; discovery (search for the territories for colonization), the population, and the pacification (the Christian missionary work), each of which respectively comprises a chapter. The documents about the code referred to in this study are the following. ICAZA DUFOUR, F. et al.(eds.): *Recopilación de leyes de los reynos de las Indias* (Miguel Ángel Porrúa, México, 1987), a typed version of the original manuscript and Archivo General de La Nación:

posterity. Understanding of the *Ordinances* are based on many studies<sup>3</sup> but only similarity between those laws and Ideal Cities and town planning concept in Italian Renaissance has often been pointed out. Stanislawski<sup>4</sup> points out the similarity especially with Vitruvius' *De architectura, libri decem*<sup>5</sup> (*Ten Books on Architecture*). Stanislawski put more importance on the commonality between two comparing the texts of articles in the *Ordinances* and the *Ten Books on Architecture*. Meanwhile the peculiarity of the *Ordinances of Philip II* is getting more and more identified<sup>6</sup>.

On the other hand, Zucker<sup>7</sup> mentions that the Vitruvian ideas dominated the ideas on architecture and town planning at the beginning of the Spanish colonial period, but the concepts of town planning shifted toward the ideas of the theorists in Renaissance Italy who were familiar with Vitruvius. Thus, Zucker suggests that the town planning concepts in the *Ordinances of Philip II* were distanced from Vitruvian philosophy. Crouch<sup>8</sup> also suggests the correlation between the town planning concepts drawn in the *Ordinances of Philip II* and Alberti's vision of the town planning indicated in his architectural treatise, *De re aedificatoria*<sup>9</sup>. A Renaissance humanist Alberti had read the *Ten Books on Architecture* by Vitruvius and re-edited his own architectural treatise, with viewpoint of studying architecture as a sociological phenomenon. Alberti's treatise, *De re aedificatoria* gave great influence on the practice and theory of architecture in the 16<sup>th</sup> and 17<sup>th</sup> centuries.

To position the *Ordinances of Philip II* as town planning vision in the Renaissance period, this paper attempts a comparative study, from the viewpoint of town planning, on the commonality and the difference between the *Ordinances* and Alberti's thoughts which provided sources of the Ideal City in the Renaissance Italy. This study also considers distance from the Vitruvian thoughts to examine the peculiarity of the *Ordinances of Philip II*.

There are not as many detailed description in the *Ordinances* as in *De re aedificatoria*, both provide geographical conditions for town construction, town layout, street planning, plaza planning, and arrangement of town facilities.

## TOWN PLANNING PHILOSOPHY IN THE TEN BOOKS ON ARCHITECTURE

### The fundamental attitude of Vitruvius on the town planning

---

"Fundación de pueblos en el Siglo XVI," BOLETÍN DEL ARCHIVO GENERAL DE LA NACIÓN, Tomo VI, No.3 (Mexico, 1935), pp.321-360, and Instituto de Cultura Hispánica (1973), *Transcripción de las Ordenanzas de Descubrimiento, Nueva Población y Pacificación de las Indias dadas por Felipe II el 13 de julio de 1573*, Ministerio de la Vivienda, Madrid, both contemporary Spanish versions.

<sup>3</sup> Outstanding researches out of various studies are as follows: ROUCH, Dora P.[et al.] (1982), *SPANISH CITY PLANNING IN NORTH AMERICA*, Cambridge, MIT Press, and SOLANO, F. [et al.] (1987), *HISTORIA URBANA DE IBEROAMERICA, TOMO I, LA CIUDAD IBEROAMERICANA HASTA 1573*, CONSEJO SUPERIOR DE LOS COLEGIOS DE ARQUITECTOS DE ESPAÑA, Madrid.

<sup>4</sup> STANISLAWSKI, Dan (1947), "Early Spanish Town Planning in the New World", *THE GEOGRAPHICAL REVIEW, Volume XXXVII*, New York, pp.94-105.

<sup>5</sup> This architectural treatise, '*De architectura, libri decem*', is supposed to be written in the last half of the first century B.C. by the architect and engineer, Marcus Vitruvius Pollio. Its manuscript copies did exist during the Middle Ages and were rediscovered in the early Renaissance, when it was rapidly translated into other European languages and the Vitruvian ideas on architecture and town planning spread all over Europe and its colonies. In this study, the following version in Latin and Japanese was referred to. MORITA, Keiiti: *VITRUVII DE ARCHITECTURA LIBRI DECEM IN SERMONEM IAPONICUM VERSIT*, (Tokyo, JAPAN: TOKAI UNIVERSITY PRESS, 1969), a Japanese translation of the Latin version in Valentin Rose, Hermann Müller-Strubing: *Vitruvii Vitruvius Pollio, De architectura libri decem*, (Teubner, 1867).

<sup>6</sup> KASHIMA, Akihiro(2008), "Significance of non-Vitruvian ideas: A study on the peculiarity of the town planning concept in the Spanish colonies", Papers in the 13TH International Planning History Society, Chicago conference, July 2008.

<sup>7</sup> ZUCKER, Paul(1959): *Town and Square: From the Agora to the Village Green*, (New York: Columbia University Press).

<sup>8</sup> CROUCH, Dora P.[et al.] (1982), *SPANISH CITY PLANNING IN NORTH AMERICA*, Cambridge, MIT Press.

<sup>9</sup> This architectural treatise strongly influenced by Vitruvius and representative of architectural treatises issued in the Italian Renaissance. Leon Batista Alberti, *De re aedificatoria*, Firenze, 1485.

First, in the *Ten Books on Architecture*, the town planning regulations are mainly recognized in Book I, which describes the construction of the town wall and sets out the fundamental attitude of town layout, and Book V, which describes the location of public facilities.

The town walls, towers, and town gates are extremely important, as Vitruvius interprets public buildings from the viewpoint of defense, religion, and practicality [Vitruvius' Book I, Chapter 3, Section 1, (Vit.I.iii.1)]. On the basis that the town and its public facilities are very important elements for society, the necessary regulations are drawn up. Humidity, temperature, and wind direction are all taken into consideration for selecting the land for town construction, [Vit.I.iv.1] and criteria for the selection of the healthy location are described [Vit.I.iv.9, I.iv.11, I.v.1]. A concrete image of the town shape is also described from the viewpoint of defense [Vit.I.v.2], pointing out the relation between the direction of the streets and the wind, and criteria for the positioning of the plazas [Vit.I.vi.1, 8, I.vii.1]. From the selection of the town site to its layout, the design considers all aspects of health, climate, and environment. The planning concept for the plazas concerning shape, size, and the surrounding buildings is very practical [Vit.V.i.1, 2, 4].

With regard to the conditions of the town site, the quality of water in particular is mentioned with regard to health in Book VIII, and a remarkable sanitary viewpoint including various required conditions for the town site, town layout, and location of facilities is presented [Vit.VIII].

#### Architectural criteria as town planning regulations

Apart from Books I and V, some architectural regulations regarding town planning are recognized. Building materials [II], architectural planning and division [III, IV], arrangement of the temples [IV], housing architecture [VI] are also mentioned in other *Books*. For example, the descriptions of building materials [II.iii.1], foundations of the buildings [III.iv.2, V.iii.3, VI.viii.1], arrangement of the temples [I.vii.1, IV.v.1, 2], and matters concerning water supply in the town [VIII] are very concrete. These descriptions are apparently recognized as the basis of the regulations in the *Ordinances of Philip II*. From this point of view, concerning conditions of location, climate, town layout, location of facilities, and materials, the *Ten Books on Architecture* by Vitruvius provides an arrangement of town planning conditions with the principles of usefulness (*utilitas*), solidity (*firmitas*), and beauty (*venustas*).

The *Ordinances* follows the aspects of safety, health, and comfort as given in the Vitruvian ideas and add new viewpoints of more practical methodology of town planning, which correspond to the expected town expansion by means of a grid pattern. This scheme of town layout shows an idea of town planning with high adjustability in case of expansion, which has not evolved from the Vitruvian ideas.

### THE ORDINANCES OF PHILLIP II IN CONTRAST WITH ALBERTI'S DE RE AEDIFICATORIA

The *Ordinances of Philip II* do not include as much detailed description as *De re aedificatoria*, but viewpoints such as geographical conditions for town settlements, town's layout, street planning, plaza planning, and arrangement of town facilities are implied. Contrasting both texts from the viewpoints on town planning, the differentiae are argued in the followings.

#### Geographical conditions for town settlements

There is much commonality in both views on the conditions where to construct a town. Conditions for climate are almost equal and they are also in accord with Vitruvian thoughts in *Ten Books on Architecture*. In Alberti's *De re aedificatoria*, he regards moderate sunlight, heat and cold, direction to the sea [Alberti's *De re aedificatoria*, Book I, Chapter 3 (I.3). It is simply abbreviated as "I.3" to distinguish from Vit.I.3 which stands for the Book I, Chapter 3, in Vitruvius' *Ten Books on Architecture*.]. On height above sea level, warm and humid climate, and water quality [I.4, 6, IV.2] as well as a good supply of materials, conditions of local plants, animals and residents [I.5], are also stated in detail in *De re aedificatoria*, from viewpoint of selecting town establishment location. Meanwhile, the *Ordinances* also states conditions for site selection, from sanitary point of view, such as height above sea level, temperature, distance from marshland, direction to the sea, and the conditions of the local inhabitants [the *Ordinances*, Articles 34,

40-41, 111-ii<sup>10</sup>] . These criteria are obviously common points and equal to the Vitruvian thoughts also.

The *Ordinances* classify the cases of inland and coastal town constructions, meanwhile Alberti argues three cases such as coastal towns, flat land towns, and mountain towns, also from sanitary point of view [IV.2].

As contrasted with Vitruvian thoughts, a peculiar attitude toward the condition for town site was pointed in the *Ordinances* which recommends to construct a town on the eastern side of the river in case of a riverside town [Article 40]. But this idea is not shown in Alberti's thought. This attitude in the *Ordinances* is conscious of creating town's dignity because the sun always rises in the direction of the town itself beyond the water surface. Alberti does not mention this condition but requires to put decoration on the town walls so that "*the enemies retreat amazedly loosing confidence*" [VII.2] and stimulates to determine a site for a shrine which is "*a rising site to show its dignity*" [VII.3]. Also the temples are to be located on "*distinguished sites with dignity and authority*" [V.6], and there is strong concern about how to decorate the town gates, the mouth of a harbor, main streets and plazas [VIII.6].

As concerned with the geographical conditions for settlements, both Alberti and the *Ordinances* have the aspects of sanitary. *De re aedificatoria* shows wide range of requirements but the *Ordinances* provide geographical requirements to build a scenery full of dignity at townscape level.

#### Criteria for town layout

*De re aedificatoria* says that a town should be located in the center of the territory with an unobstructed view toward the town's boundary [IV.2]. A town should be enclosed by walls and Alberti explains the method of constructing the town walls comparing with ancient examples on the assumption that town walls are constructed. Alberti's thoughts on town's boundary differ from Vitruvian thoughts but it is common to both that an outline of town is to be determined to obtain a town layout with plazas and streets in good order. But *the Ordinances* include no regulations on the town walls. The *Ordinances* requires well-ordered street pattern for town layout [Article 117] on condition that a town expands in the future [Article 111], and stimulate the repetition of street planning in case of town's expansion. Considering that many colonial towns were enclosed by walls, the *Ordinances* take a stance of not constructing town walls to arrange a planning system in accordance with town's future expansion.

As for town shape, *De re aedificatoria* states that it is not practical to give a circular or a rectangular shape to a town wall as stated in *Ten Books on Architecture*, but it is adequate to plan a town so as to fit for the site condition [IV.3]. Also Alberti adds construction regulations on lands for public use, plazas, streets, bridges, sewage, harbor for administration and recreation of town [IV.3,5,6,8], and on temples, administration facilities, public facilities, commercial facilities, town residence as elements of town formation [V.6,7,8,13,18].

Meanwhile the *Ordinances of Philip II* mention town facilities such as temples, administration facilities, commercial facilities, medical facilities, town residence as elements of town planning but Alberti already provides the same viewpoint on those facilities.

#### Street planning

As for the street planning, Alberti classifies streets into military streets and non military streets. As Alberti mentions about the military streets, "the town gates should be constructed corresponding to the number of military streets", we can understand that the military streets mean the main streets connecting outside and inside of a town through the town gates. *De re aedificatoria* adjust necessary requirements of width and safety of the military streets inside and outside a town from defensive point of view [IV.5]. At the same time, Alberti emphasizes the effect of the decoration of streets.

Meanwhile the *Ordinances* classify the streets into the main streets extending from the central point of each side of the central plaza and the ordinary streets

<sup>10</sup> In the original text there is an error—the article number 111 is assigned on two different articles. Here the second article 111 is numbered "Article 111-ii," and the first just "Article 111."

extending from each corner of the plaza [Article 114]. Of these the main streets extend outward the town through the town gates [Article 111]. The *Ordinances* do not give a direct explanation of the military streets but the main streets mentioned in the Article 111 are likely to have a similar function to the military streets stated in *De re aedificatoria*. The *Ordinances* requires that the streets inside town, plazas and blocks should be laid regularly in a line repeatedly in good order [Articles 111, 117]. The *Ordinances* show no direct indication of grid pattern. However, considering other regulations about the relation of the rectangular main plaza and the classified streets, the *Ordinances* provide a street layout of Cartesian coordinates as illustrated in the Figure 1.

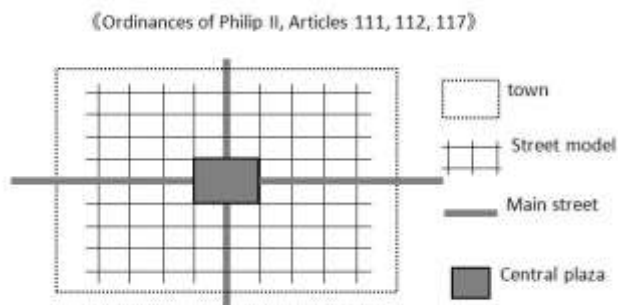


Figure 1 : Street layout according to the Ordinances

*De re aedificatoria* requires also a town layout in good order saying that “the town streets should be planned precisely and totally in good order”, but much attention is paid on those streets from the viewpoint of town’s decoration [VIII.6] , considering buildings on the streets, sidewalks, intersections and plazas. Alberti insists that the town streets should not be straight in line but planned to be curved gently [IV.5] to give impression that the streets seem to have more distant and larger scale than they actually are, and that street pattern of this type gives elegance and advantage of use to a town. Moreover Alberti points out that the scenery changes as a person takes a step forward along curved street and that compared with a straight street there are various merits from the viewpoints of sunlight, strong wind, usage for events and defense as well. Reproducing a street layout of this pattern at town level would be as shown in the Figure 2. There are no other regulations that suit this street system of curved streets but it is comprehensible according to Alberti’s point that the town streets do not necessarily form a pattern of rectangular coordinates.

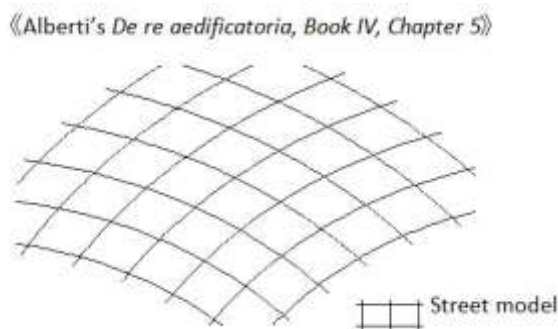


Figure 2 : Street pattern of curved streets

### Plaza planning

In *De re aedificatoria*, an intersection is considered equally as a plaza, for a plaza is where streets cross one another or connect each other [VIII.6]. Alberti requires elegant decoration to the space of the plaza and recommend constructing porticoes. At the same time, the *Ordinances* provide equal ideas to construct porticoes to the buildings on four sides of the central plaza and along the main streets extending from the plaza to the town gates [Article 115]. As for the porticoes, the *Ordinances* base the construction of porticoes upon the usage of merchants’ activities but this seems to be modeled on the viewpoint of town

decoration described in *De re aedificatoria*. Both provide not only functional but also decoration perspective to the town planning.

As for the shape of plaza, Alberti gives concrete requirements for plaza planning such as a proportion of rectangular plaza, height of the buildings to the width of plaza. A plaza should be planned as a rectangular shape of ratio 1 to 2, consisting of two squares and the height of the buildings to the width of plaza should be with ratio of more than 2 to 7 [VIII.6]. Besides, *De re aedificatoria* states in detail about proportion of diameter and height of the columns around the plaza following the Vitruvian thoughts. Much attention is paid on the plaza planning in order. On the contrary, the *Ordinances* insist that the plaza should be rectangular with ratio of more than 1.5 to 1. This rectangular plaza stated in the *Ordinances* is likely to be the basic block of town layout. In other words, the layout of blocks depends on the dimension and shape of the central plaza. This viewpoint by the *Ordinances* is found neither in Alberti's thoughts nor in Vitruvian thoughts. Moreover the *Ordinances* provide concrete and ideal dimension for the central plaza so as to be practical and referential in actual planning of a town.

#### Arrangement of town facilities

*De re aedificatoria* emphasizes the arrangement regulations on the public facilities such as cathedrals, monasteries, hospitals, and courts [V.6, 7, 8, 13]. Moreover, a cathedral should be located in the center of a town or at a long distance from the crowd of residents, without any unnecessary building aside to secure sufficient open space around the cathedral. The *Ordinances* also state that the religious facilities such as cathedrals should be constructed at a remarkable place and no other buildings should be constructed aside in order that it stands out [Articles 119, 120, 124]. The intention of the prestige on religious facilities and impression making for the visitors are common to both and it is remarkable that the *Ordinances* consider dignity and impression of the town itself and to develop these ideas in the arrangement requirements at town level regarding locational conditions of a river, town, and the sun [Article 40].

*De re aedificatoria* also discusses the public facilities such as schools requiring to choose a fairly convenient site of school for anyone [V.8]. As for medical facilities, Alberti classifies the hospital into two categories, a hospital for infectious disease and another for non-infectious disease, to realize healthful facility arrangement. These attitudes are common to the *Ordinances*. *De re aedificatoria* argues other facilities such as granaries, treasury, armories, commercial zone, shipyards, and so on, from viewpoints of functionality and emergency [V.13]. To the town residence, a shop should be incorporated in it and the residence of this type should be constructed at the intersection or in the plaza [V.18]. Both share the hygienic viewpoint such as the facilities with garbage problems and the medical facilities categorized into one for infectious disease and another for non-infectious disease.

The *Ordinances* basically follow Alberti's attitudes on facility arrangement illustrated in *De re aedificatoria* but furthermore develop the standpoint also to the arrangement requirements of plazas. The *Ordinances* also classifies the plazas, which are the main plaza and minor plazas and insist that distribution of plazas of these types is very important for a town [Article 118]. Moreover, following the attitude of facility arrangement by Alberti, the *Ordinances* indicate a town planning distributing religious facilities together with minor plazas as a set (Figure 3). The Alberti recommends setting various functions, characters, and decoration on different plazas according to the condition of each plaza [VII.1, VIII.6]. Alberti's assertion is based on the perspective of decorating public space and building up relationship among the residents. On the other hand, the *Ordinances* establish the planning methodology of regarding the main plaza as a key block for whole town, and furthermore distribute the minor plazas dispersively which form minor town cores.

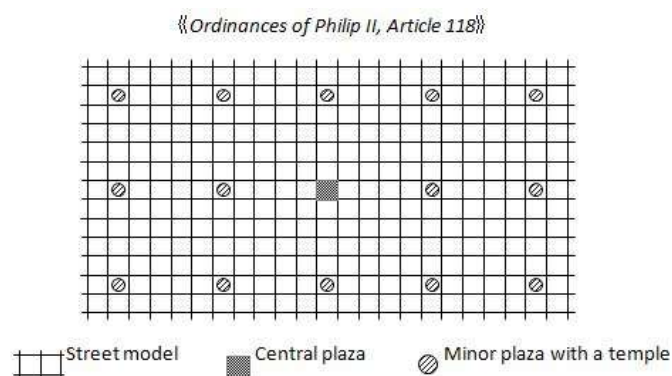


Figure 3: Dispersive distribution of minor plazas attached with temples

## CONCLUSION

(1) As for the geographical conditions of a location for the town establishment, both the *Ordinances* and Alberti's ideas follow in the criteria described in the Vitruvian thoughts in *De Architectura Libri Decem*.

(2) The *Ordinances* develop its original method of town layout with arrangement of plazas and minor plazas and classified streets.

(3) As concerns the street planning, under the strong influence of Alberti's attitudes, the *Ordinances* logically lead the planners to a Cartesian coordinate system of streets.

(4) Practically developing the methodology of forming a plaza described both by Vitruvius and Alberti, the planning of a main plaza is evaluated in the *Ordinances* as the most important category that leads to a layout decision of a town.

(5) All three materials are in accord with functional and hygienic points of view in the planning and arrangement method of the municipal facilities. The *Ordinances* particularly expands the viewpoints of ornament toward the facility planning by Vitruvius and Alberti to the locational conditions in order to establish an image of town with dignity.

On the whole, the methodology of town planning in the *Ordinances* follow in the fragmentary solution for the planning and arrangement of plazas, streets, municipal facilities represented in the Vitruvius' *De Architectura Libri Decem* and Alberti's *De re aedificatoria*.

Alberti's attitudes are considered to be arrangement of ideal future on various conditions of town space. Despite this, Alberti's perspective is distant from leading concrete model of a town with town's pattern and layout possibly because a diversity of a town is intended. Rather, Alberti's perspective is considered to an arrangement of evaluation criteria of town planning.

In the *Ordinances* however, the regulations on the spatial structure of plazas and those extending streets from them in good order control the town's layout. Moreover, those regulations apparently provide the practical guidelines for the planning of the principal plaza which form the core of a town and for the planning and arrangement of municipal facilities. Under the strong influence of the town planning concept in the Renaissance Italy, the *Ordinances* transformed those methods to further practical and concrete town planning regulations, which strongly provide the planners with the visual image and solution of town planning.

## REFERENCES

- Gravagnuolo, Benedetto (1998), *Historia Del Urbanismo En Europa 1750-1960*, Akal Arquitectura, Madrid, p.58.
- Cerdà I Sunyer, Ildefons (1971, Edición Facsimil de 1867ed.), *Teoría General De La Urbanización y aplicación de sus principios y doctrinas a la reforma y ensanche de Barcelona*, Instituto de Estudios Fiscales, Madrid, pp.186-197.
- Diego-Fernández Sotelo, R. (1987), "Mito y Realidad en las leyes de población de Indias", Icaza Dufour, F. et al.(eds.), *Recopilación de leyes de los reynos de las Indias*, Miguel Ángel Porrúa, México, pp.209-255.
- Archivo General de La Nación (1935), "Fundación de pueblos en el Siglo XVI", *Boletín Del Archivo General De La Nación*, Tomo VI, No.3, pp.321-360.
- Instituto de Cultura Hispánica (1973), *Transcripción de las Ordenanzas de Descubrimiento, Nueva Población y Pacificación de las Indias dadas por Felipe II el 13 de julio de 1573*, Ministerio de la Vivienda, Madrid.
- Solano, Francisco de (1996), *Normas Y Leyes De La Ciudad Hispanoamericana (1492-1600)*, Consejo Superior De Investigaciones Científicas(CSIC), Madrid.
- Sainz Gutiérrez, Victoriano (2001), "Un Modelo Para La Construcción De La Ciudad Hispanoamericana : Las Ordenanzas De Nueva Población (1573)", Cociña Y Abella, Manuel J. et al.(eds.), *La Nueva Relación España-América En El Proyecto Europeo*, Publicaciones obra social y cultural cajasur, Córdoba.
- Nuttall, Zelia (1964. Reprint of 1921ed.), "Royal Ordinances Concerning The Laying Out of New Towns", *Hispanic American historical review*, Vol.4, no.4, pp.743-753.
- Stanislowski, Dan (1947), "Early Spanish Town Planning in the New World", *The Geographical Review*, Volume XXXVII , New York, pp.94-105.
- Zucker, Paul (1959): *Town and Square: From the Agora to the Village Green*, (New York: Columbia University Press).
- Rykwert, J., Leach, N., and Tavernor, R (translation 1988), Leon Battista Alberti, *On the Art of Building in Ten Books*, The MIT Press.
- Crouch, Dora P.[et al.] (1982), *Spanish City Planning In North America*, Cambridge, MIT Press.
- Solano, F. (1990), *Ciudades Hispanoamericanas Y Pueblos De Indios*, C.S.I.C., Madrid, pp.59-80.
- Solano, F. [et al.] (1987), *Historia Urbana De Iberoamerica, Tomo I, La Ciudad Iberoamericana Hasta 1573*, Consejo Superior De Los Colegios De Arquitectos De España, Madrid.
- Solano, F. [et al.] (1990), *Historia Urbana De Iberoamerica, Tomo II-1, La Ciudad Barroca 1573/1750*, Consejo Superior De Los Colegios De Arquitectos De España, Madrid.
- Solano, F. [et al.] (1990), *Historia Urbana De Iberoamerica, Tomo II-2, La Ciudad Barroca 1573/1750*, Consejo Superior De Los Colegios De Arquitectos De España, Madrid.
- Terán, Fernando de (ed.) (1997), *La ciudad hispanoamericano El sueño de un Orden*, Centro de Estudios Históricos de Obras Públicas y Urbanismo, Madrid.
- Hardoy, J.E (1983): "La forma de las ciudades coloniales en la América española", Solano, Francisco de (ed.), *Estudios Sobre La Ciudad Iberoamericana*, C.S.I.C., Madrid, pp.315-344.
- Centro De Estudios Políticos Y Constitucionales Y El Boletín Oficial Del Estado(ed.)(Edición facsimil, 1998):*Recopilación De Leyes De Los Reynos De Las Indias, Tomo Segundo*, Madrid, Imprenta Nacional Del Boletín Oficial Del Estado.