"RE – VISION":
A STUDY ON ARNHEM KOEPEL PRISON, THE PANOPTICON

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ABSTRACT

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A STUDY ON ARNHEM KOEPEL PRISON, THE PANOPTICON

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Jeremy Bentham, a social theorist, conceived architecture as a tool for rehabilitating society and as a machine to realize his theoretical studies in the field of penology. Bentham designed a building for the rehabilitation of the so called "abnormal people" in 1791, and he named this machine as, *the panopticon*. Bentham's intention was to achieve control over the convicts by an architectural scheme of central inspection.

Rem Koolhaas, a contemporary architect, has recently coordinated a "re-vision" project of a model of Bentham's panopticon, of the Arnhem Koepel Prison in the Netherlands. Koolhaas has changed the theme of central inspection in this project. Thus, the character of the disciplinary space in the Arnhem Koepel has been modified. The "re-vision" project points to a transformation of the understanding of disciplinary space. The transformation of the understanding of disciplinary space further signifies changes occurring in the social structure of the Twentieth Century.

In this study, the primary concern is the investigation of the transformational role of the architecture of the panopticon in the Eighteenth Century, Koolhaas's consideration of the "re-vision" project of the Arnhem Koepel as contemporary disciplinary space, and the relationship between the change in the understanding of disciplinary space and the transformation of society.

Keywords: disciplinary space, workspace, vision, re-vision.

ÖZ

"YENİDEN-GÖRME": ARNHEM KOEPEL HAPİSHANESİ, PANOPTICON ÜZERİNE BİR ÇALIŞMA

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Onsekizinci Yüzyılda mimarlık toplumu iyileştirmek için bir araç olarak görülmeye başlanmıştı. Jeremy Bentham hukukçu olarak, mimarlığın bu yönünü cezabilim alanındaki kuramsal çalışmalarını gerçekleştirmek için bir makine olarak ele almaktaydı. Bentham 1971'de, anormal diye adlandırılan insanları ıslah etmek amacıyla bir mimari araç tasarladı, ve toplumsal iyileştirme için geliştirdiği bu makineye *panopticon* adını verdi. Bu tasarım üzerinde çalışırken Bentham'ın niyeti merkezi gözetim esaslı bir mimari kurgu sayesinde mahkumlar üzerinde denetim sağlamaktı.

Çağdaş bir mimar olan Rem Koolhaas yakın tarihte Bentham'ın panopticon'unun bir örneği olan Hollanda'daki Arnhem Koepel Hapishanesi'nin yenileme projesini yönetmiştir. Koolhaas bu projede merkezi gözetim temasını değiştirmiştir. Böylece, Arnhem Koepel Hapisanesi'ndeki mekanın cezalandırma işlemine katkısı da değişmiştir. Yenileme projesi, disiplini sağlayan mekan anlayışının dönüşüme uğradığına işaret etmektedir. Bu dönüşüm ayrıca Yirminci Yüzyıl toplumlarındaki değişimi de göstermektedir.

Bu çalışmadaki temel amaçlar Onsekizinci Yüzyılda panopticon'un değişime olan katkısı, Arnhem Koepel yenileme projesinin disiplin sağlayan bir mekan olarak düşünüldüğünde Koolhaas'ın tutumunu, ve mimari anlayış ile toplumsal değişim arasındaki ilişkiyi araştırmaktır.

Anahtar kelimeler: disiplin, mekan, çalışma mekanı, görme, yeniden-görme (yenileme).

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CHAPTER I

INTRODUCTION: A "RE-VISION" PROJECT FOR THE ARNHEM KOEPEL PRISON

In 1979, OMA (Office for Metropolitan Architecture) was commissioned to develop a renovation project for an existing prison in Netherlands. Rem Koolhaas, the chief architect of this architectural office, explains the significance of this project in an article published in Artforum, and in his book, S,M,L,XL (Koolhaas: 1981: 41 – 43; 1996: 235 - 253). Koolhaas states that the mission that they had been appointed to complete was a challenge, since they were at that time asked to develop a re-vision project for a prison that had been built upon the archetype of an inspection house that was once very special. The building to be "re-vised" was the Arnhem Koepel prison, and its significance lied in the character of its architectural scheme. This architectural scheme had been invented by a social theorist who had developed many innovative theories in the field of legal justice and punishment in the Eighteenth Century. This theorist was Jeremy Bentham (1748 - 1832), who had materialized his theories in his famous prison design: the panopticon.

As explained by Koolhaas, the Arnhem Koepel Prison was initially built in 1882, in Netherlands according to the panoptic principle of Bentham (fig. 1.1). This building was, in fact, an example of a few existing panoptic prisons, which were built following Jeremy Bentham's initial project. Additionally, this building has been used for more than a hundred years and is still in use as a prison (Koolhaas: 1981: 41; 1996: 237).

As a model, the Arnhem Koepel prison carries all the characteristic qualities of the panopticon. This prison is basically an annular building with cells at the periphery and has an inspection room at the center of its interior space. The building is circular in plan and it is covered by a dome contributing to the centrality of the interior (Koolhaas: 1981: 41; 1996: 237).

As asserted by Koolhaas, the most significant feature of the internal space of this prison is "the factor of central inspection." This emphasis on central inspection forms the basis of the architectural configuration of this prison (Koolhaas: 1981: 41; 1996: 237). At the center there is a watch-room and this central watch-room is the space where "surveillance" is exercised. Bentham states that "surveillance" functions to deter the prisoners from their inappropriate habits and to impel them to work vigorously. According to Bentham's principles, the reason for central inspection is to create a "rehabilitative environment" that would propel the prisoner to become a person who actually

works for the benefit of production. Therefore, the interior of the Arnhem Koepel Prison is actually a "workspace" where prisoners are incited to be productive (Bentham: 1843b: 97; 1791b: 50 – 68).

As the primary principle of panoptic space is inspection; its method carries a significance that turns the panopticon into a unique architectural model. According to Bentham's principles, the prisoners are inspected from the central watch-room. The inspector, who is positioned in the watch-room, has to remain invisible in order to be able to accomplish his duty. Thus, the prisoner would feel the existence of an "obscure gaze" without actually knowing who the inspector is watching that specific moment. The invisibility of the inspector is provided by the darkness of the space in the inspection room (Bentham: 1791b: 43 - 44).

Therefore, the architectural qualities of the panoptic space constitute the uniqueness of the panopticon as a model in which "surveillance" is exercised. In the following sections of this study, the uniqueness and perfection of this building as a model of "disciplinary space" will be explained within its historical context in the late Eighteenth Century. The contemporary renovation project by OMA will require a further re-investigation.

From the time when Jeremy Bentham had designed the original panopticon until the time when Koolhaas was asked to study the building the social and legal conditions have changed. The development in technology has entered into the lives of every individual in work environments and into the Arnhem Koepel Prison (Koolhaas: 1981: 41; 1996: 240 - 241). However, the most apparent necessity for the renovation was the transformation in the understanding of "surveillance" and in the understanding of space in which surveillance is exercised.

For Bentham, the productivity of the individual was directly related with the individual's state of consciousness in the presence of continuous inspection such as in the panopticon (Bentham: 1791b: 43 - 44). However, this can no longer be valid for the contemporary situation. The humanist thought and institutional structures of the Eighteenth Century have been transformed into far different organizational entities. Many issues have entered into the overall framework of the work place, such as technological apparatuses and information technology. Consequently, the character of surveillance, the qualities of the necessary enclosure and the space it defines have all changed due to the following "events" that have taken place in this prison. Koolhaas confirms that the character of inspection has changed for the workspace as follows: "the ever – changing attitudes toward detention may be one of the most acute indicators of changing values in society" (Koolhaas: 1981: 41; 1996: 241).

"Surveillance" was a primary issue in the workspaces in the late Eighteenth Century. Today the character of disciplinary space, the contemporary space in which surveillance is exercised, has undergone a transformation. In Bentham's panoptic space, inspection was the determining means of displaying power. In the panopticon, this was achieved through the watch-tower, which stood at the center of the panoptic space. However, in the contemporary situation, the act of watching is generally performed by technological instruments such as cameras, speakers and listening devices which inspect, observe and and largely remain invisible. These devices form a new ground for communication between two or more entities and media for the exercise of "surveillance". These new technological "surveillance" systems have brought alternative media for the exercise of control in

society. The configuration of the cells and the watch-tower in the panopticon are no longer obligatory. For the panopticon to transform according to the contemporary developments, the re-evaluation of its architectural scheme was necessary. In other words, due to contemporary conditions, an architectural renovation of this hundred year-old building was necessary (Koolhaas: 1981: 41; 1996: 241).

Koolhaas claims that Bentham's principle of central inspection had become useless in the prison. The guards preferred to stroll around outside the inspection room, on the interior ground of the panoptic space, and on the galleries that provided circulation to the cells. Since the inspector was no longer invisible, the panoptic system of surveillance had failed and had to change (Koolhaas: 1981: 41; 1996: 241).

For Koolhaas, another point of Bentham's Panopticon, too, was no longer needed, namely, the solitary confinement of the prisoners. In other words, the cell system at the periphery was not an acceptable humanly solution to the imprisonment of the criminals. Koolhaas states that other means of confining the prisoners had to be provided in the "re-vision" project (Koolhaas: 1981: 41 – 43; 1996: 235 - 253).

One last factor that had to be re-evaluated was the necessity of the extension of the program of the Arnhem Koepel Prison. Koolhaas asserts that the prison authority had provided solutions for the extensions by constructing individual barracks for every new function. These barracks had been built in the external area of the Arnhem Koepel Prison. Moreover, some activities had been integrated into the interior of the panoptic space by emptying cells of imprisonment and by filling these spaces with official functions (Koolhaas: 1981: 41; 1996: 235 - 253). This meant that a larger program had to be integrated into the preliminary one. Thus, a new architectural scheme, that would provide extensions for the initial panoptic diagram, was necessary for the panoptic prison.

In the "re-vision" project, Koolhaas suggests that since the central watch-room is no longer necessary, it had to be replaced by a series of new facilities for the prisoners' social rehabilitation (Koolhaas: 1981: 41; 1996: 239). Considering the extended program, he adds additional margins for future programs. Therefore, the introduction of new functions would not be restricted to the periphery of the existing building. For the renovation of the prison, Koolhaas proposed a system, which both opposed and also corresponded to the initial panoptic organization with its system of "surveillance". His proposal consists of workshops and other social facilities "for work, sports, culture, religion, etc." which he situates along "two bisecting streets." These streets and facilities replace the previous watch-room. However, these bisecting streets are not placed on the ground floor but are positioned at the basement level. Thus, the prisoner sees two sunken streets that bisect at the center instead of an inspection room. Koolhaas states that these streets, which are situated in the basement level "would be open to the ground floor to result with a slit in the ground that stretches to the periphery." Koolhaas further adds that this sunken street would be in the shape of a cross to emphasize escape from the controlled space in the panopticon with its extension towards the periphery (Koolhaas: 1981: 41; 1996: 242 - 245). Additionally, Koolhaas extends the program out of the boundaries of the previous scheme of the peripheral ring, with projections (Koolhaas: 1981: 41; 1996: 245 - 247). These extensions of the program result in extremities which project out of the cylindrical form of the initial

building. All of these renovations are applied to the preliminary structure of Bentham's panopticon so that a new scheme appears (fig. 1.2, fig. 1.3, fig. 1.4, fig. 1.5, and fig. 1.6). With the application of this new scheme, the intention of Koolhaas is not to imply the failure of the panopticon or to introduce a brand new architecture for surveillance, but to offer a "re-vision" project, where the panoptic scheme is reconfigured according to the contemporary considerations of surveillance. As a result, this new scheme does not destroy Bentham's original panoptic system but regulates it according to the existing conditions (Koolhaas: 1981: 41; 1996: 247).

Therefore, I argue that Koolhaas has not only "re-visited" but has gone further to "re-invent" Bentham's panopticon according to the previous arguments and "events" that have taken place inside a contemporary prison. With this "re-invention", Koolhaas has designed a visual scheme that was to replace the existing one. He further conceived that "the organization of the new prison disappears underground and operates for all the world like the prehistory of the old; it stands so to speak, for the archaeology of the ruined prison itself" (Vidler: 1992: 192 – 193). Thus, this new prison while standing for the archaeology of itself, also stands for its own future.

I believe that both the panopticon and the discourse that has developed around it are still valid in the present situation of architectural practice and discourse. In this study, the discussion is constructed upon the transformation of the understanding of "surveillance", of "disciplinary space" and of the architectural solutions to inspection. Although the context has changed since the Eighteenth Century, the panopticon and "disciplinary space" are still important issues that provide grounds for the development of physical environments. Thus, the "re-vision" project of the Arnhem Koepel Prison is taken as a case study to discuss contemporary "disciplinary space" and its consequences for the architectural discourse.

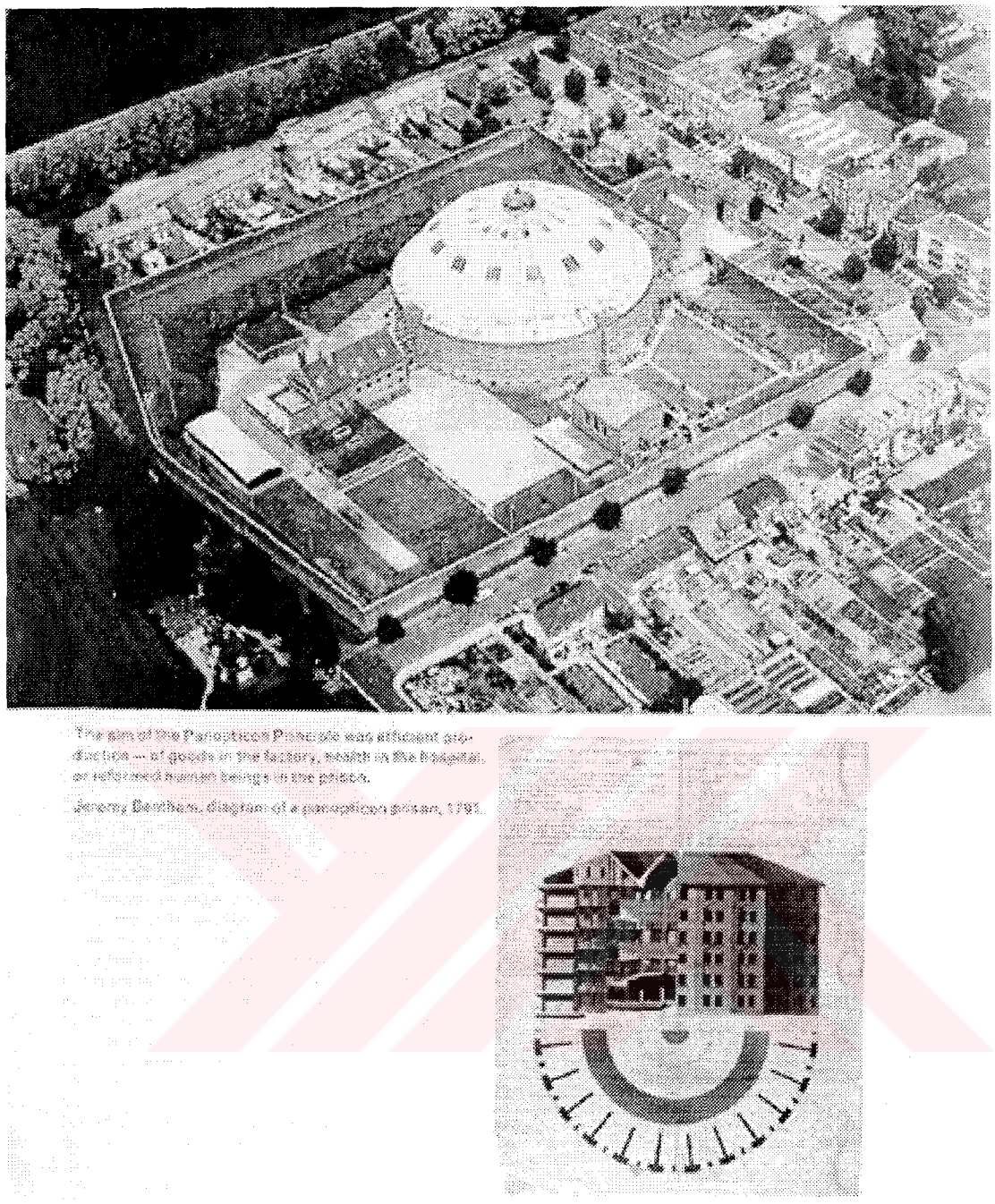


Fig. 1.1. The original situation of the Arnhem Koepel Prison and Bentham's panopticon,
Source: Rem Koolhaas and Bruce Mau. S,M,L,XL. New York: Monacelli Press, 1996: 236.

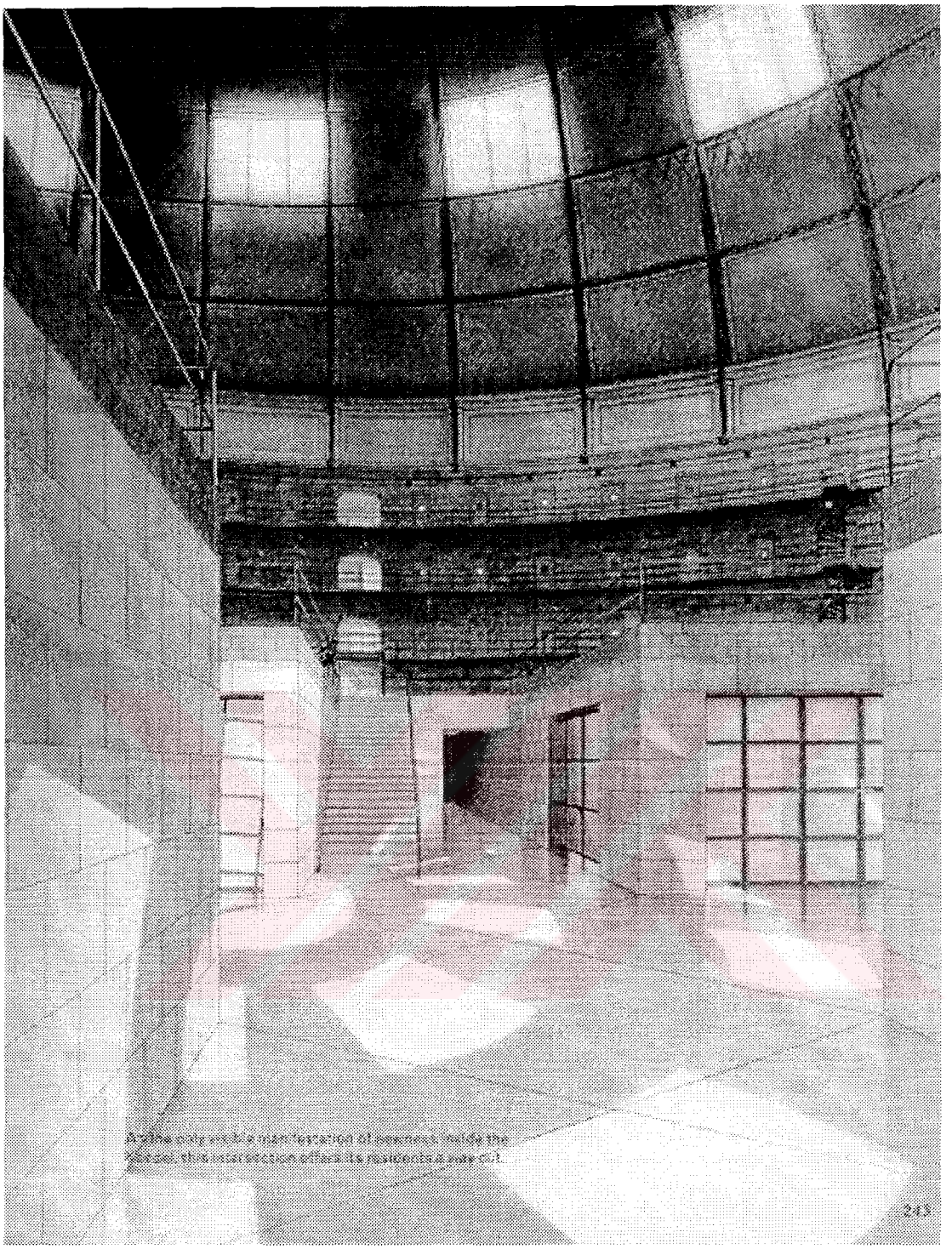


Fig. 1.2. Koolhaas's "re-vision" project of the Arnhem Koepel Prison.
Source: Rem Koolhaas and Bruce Mau. S,M,L,XL. New York: Monacelli Press, 1996: 243.

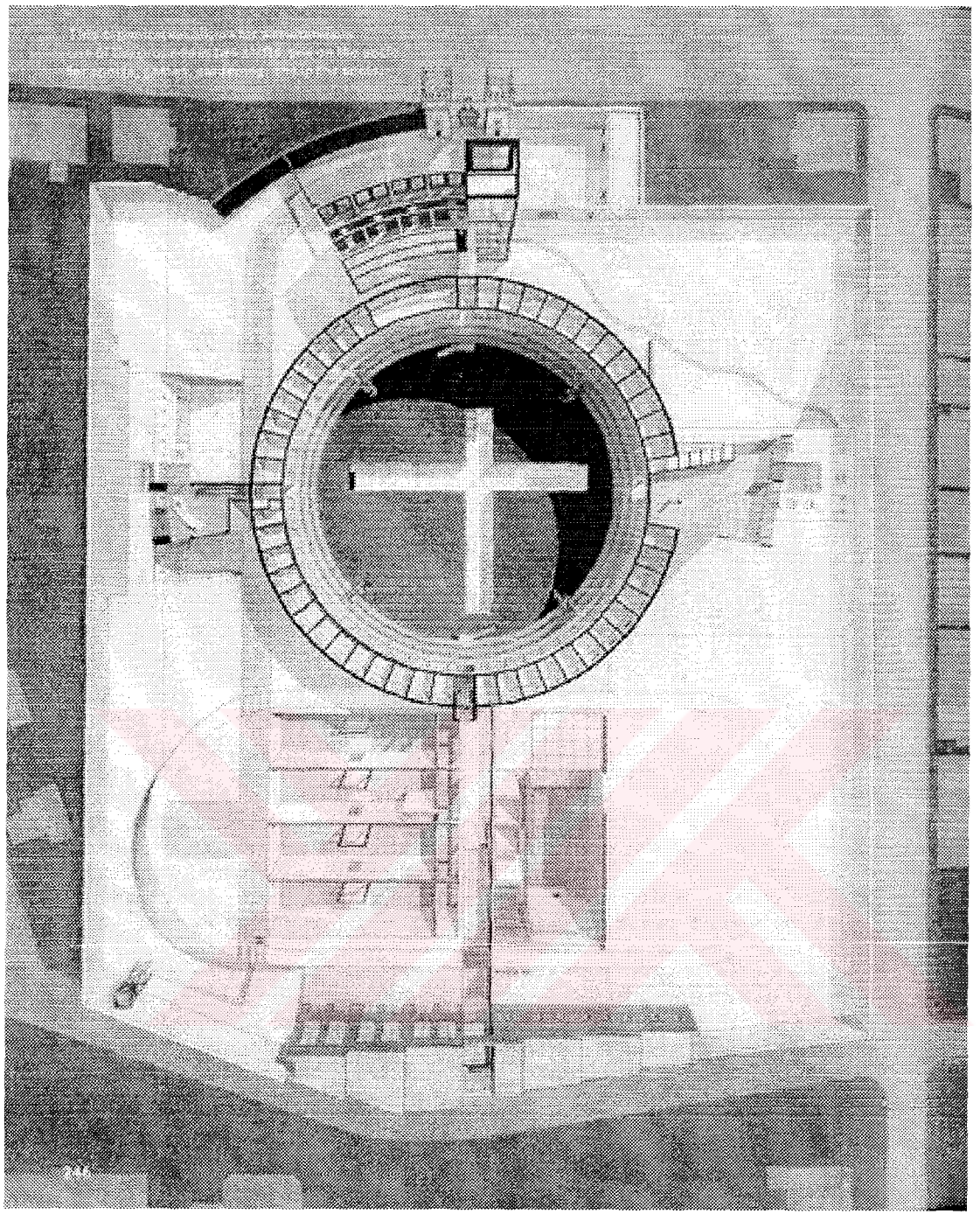


Fig. 1.3. Koolhaas's "re-vision" project of the Arnhem Koepel Prison.
Source: Koolhaas, Rem and Bruce Mau. S,M,L,XL. New York: Monacelli Press, 1996: 246.

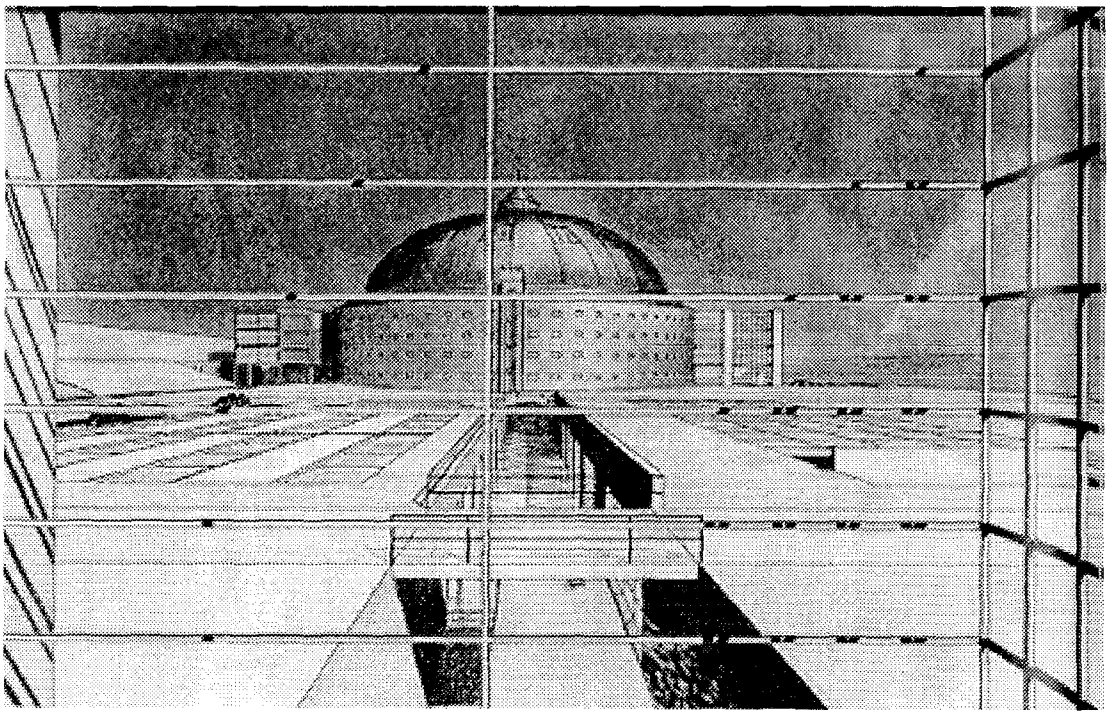


Fig. 1.4 Koolhaas's "re-vision" project of the Arnhem Koepel Prison.
Source: Rem Koolhaas and Bruce Mau. S,M,L,XL. New York: Monacelli Press, 1996: 243 – 244.

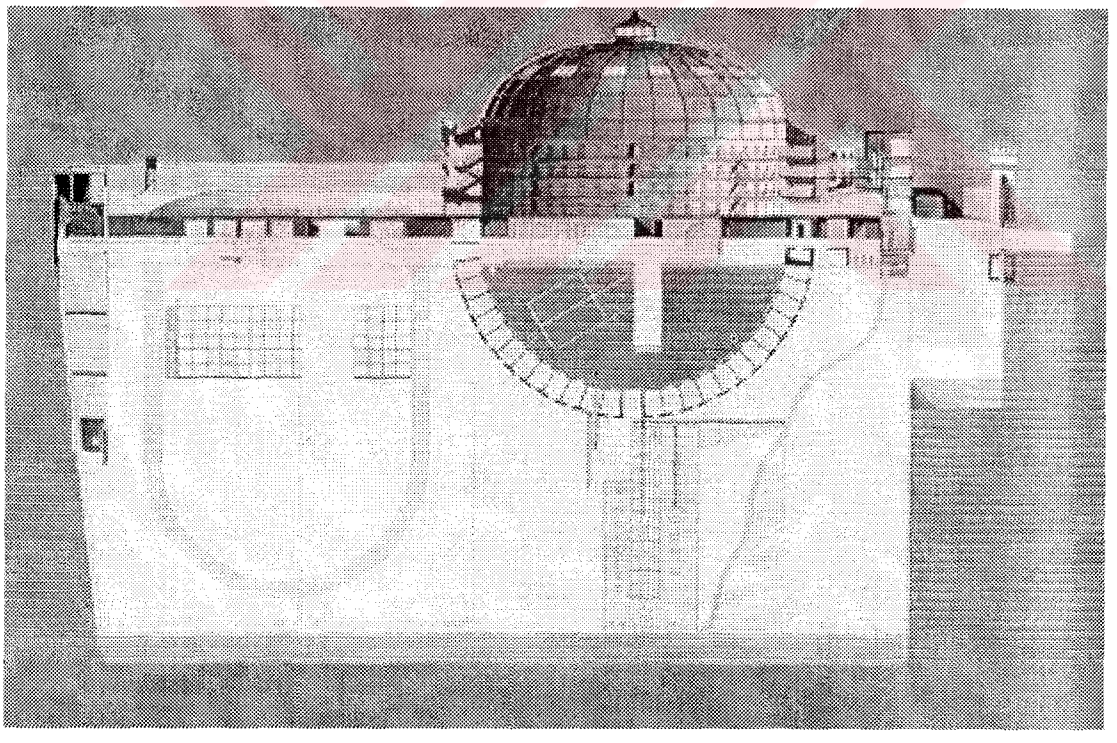


Fig. 1.5. Koolhaas's "re-vision" project of the Arnhem Koepel Prison.
Source: Rem Koolhaas and Bruce Mau. S,M,L,XL. New York: Monacelli Press, 1996: 243 – 244.

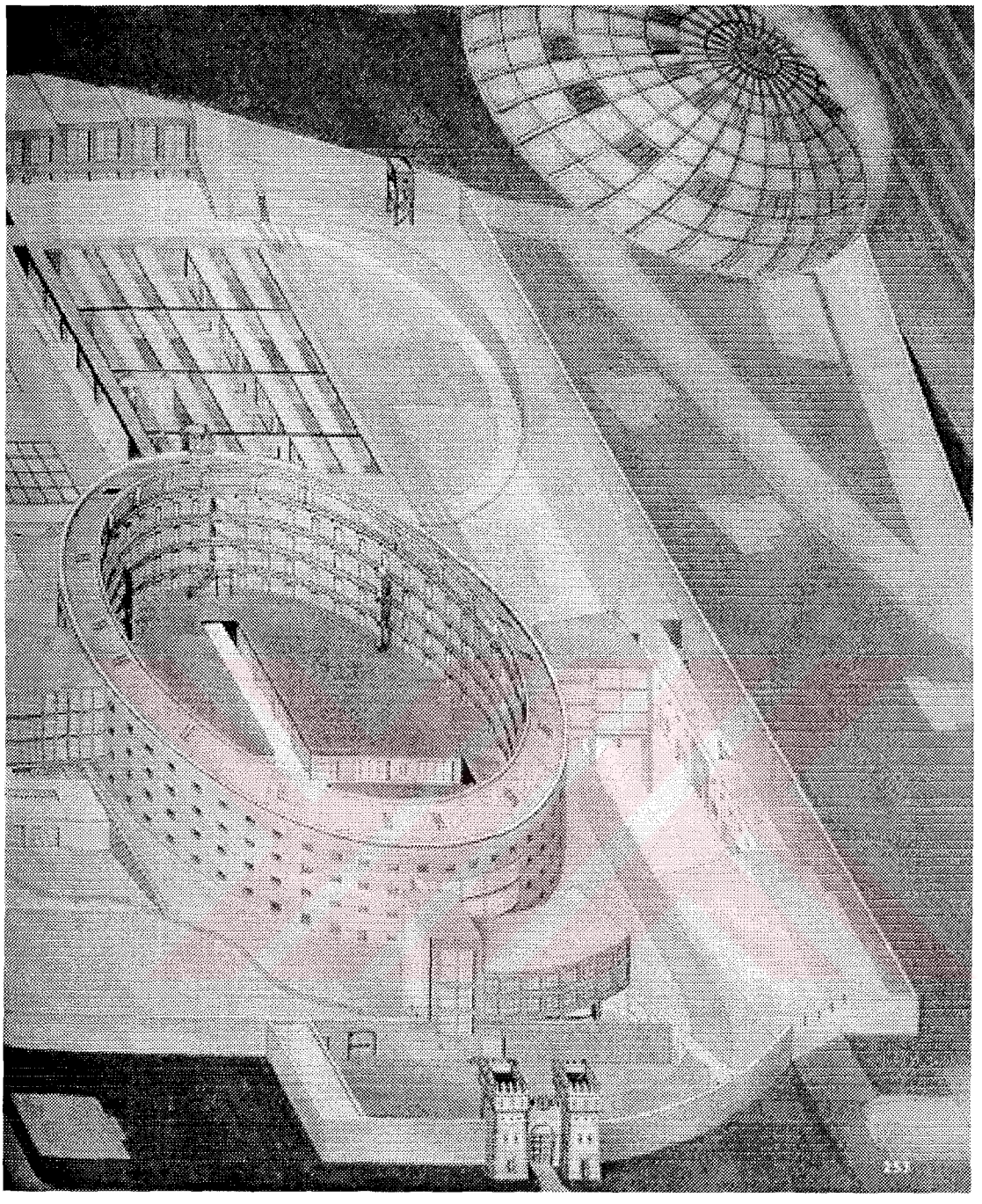


Fig. 1.6. Koolhaas's "re-vision" project of the Arnhem Koepel Prison.
Source: Rem Koolhaas and Bruce Mau. S,M,L,XL. New York: Monacelli Press, 1996: 253.

CHAPTER II

PANOPTICON: AN ARCHITECTURAL PROJECT FOR REHABILITATION

Jeremy Bentham lived in a period which constituted a crucial point in the course of social history in Europe. The period between the late Eighteenth and early Nineteenth Centuries has been a stage for social transformation. Bentham, with his panopticon, made his own contribution to this transformation in Europe's social history. This change in the social life of the Eighteenth Century in Europe was triggered by the emergence of industrial developments. Kenneth Frampton, an architectural historian, claims that these developments in industry were accompanied by the progress of humanistic thought.

> The first was a sudden increase in man's capacity to exercise control over nature, which by the mid-17th century had begun to advance beyond the technical frontiers of the Renaissance. The second was a fundamental shift in the nature of human consciousness, in response to major changes taking place in society, which gave birth to a new cultural formation that was equally appropriate to the lifestyles of the declining aristocracy and the rising bourgeoisie. (Frampton: 1980: 12)

As Leonardo Benevelo, an architectural and social historian asserts, this new cultural formation introduced "productivity" as a major source of progress. Accordingly, the efficiency of the individual's work power was essential with respect to the developmental appropriations of the authority of the specific work place. With the development of industry, however, inevitable problems appeared and required dependable solutions.[1] As Benevelo further states, the innovations, which were to solve the problems of the developments in industrialization, were necessary in various fields to create a more vigorous environment and to prepare a healthy society for the increase of productivity (Benevelo: 1963: 1 – 35). These developments brought about both positive and negative impacts on the individual's perception of the world. The negative impact of "productivity" was that it became a necessity of industrialization to draw the outline of the problem of the efficiency of the individual. As a positive impact, "productivity" became a means of reforming social life.

Therefore, the main concern of this study is the architectural contribution that has been formulated for the productivity of the individual, in other words the efficient working environment proposed in the panopticon. Frampton asserts that the means of the necessary innovations were immersed into the work space by humanist thought, education, training, and the rehabilitation of the individual for the scholars' imagined "utopic" society of humanist thought (Frampton: 1980: 12).

With the aid of the panoptic workspace, this problem was solved through the rehabilitation of the people who were maladjusted according to the assigned productive role of the individual in the Eighteenth Century. This role was assigned by the institutional control of the individual to work effectively in the developing society. Michel Foucault (1926 – 1984), claims that the individual who was "unhealthy," "dishonest," or "uneducated" was to be rehabilitated in order to provide a uniform and vigorous society (Foucault: 1975: 195 - 200). Thus, the individual would be willing to work effectively for the institutional authority of the work space. According to Foucault, the authoritative subject of the Eighteenth Century work spaces were institutions such as the military barracks, schools, hospitals or prisons (Foucault: 1975: 209). For Foucault, the space in which these authorities kept their workers in discipline was to be called: the "disciplinary space".

Foucault asserts that this shift in social organization propelled certain scholars of the Eighteenth Century, such as Jeremy Bentham and other Utilitarians, earlier philosophers and mathematicians such as René Descartes, and revolutionaries such as Jean Jacques Rousseau, to study the re-establishment of social structure where productivity and development were of consideration (Foucault: 1980c: 152).

This re-establishment of social structure was illustrated by Jeremy Bentham through a very unique project. For Bentham, this project was to be used as a tool for the intention of rehabilitating the individual. It was primarily an architectural project in which discipline was to be provided in the internally constructed space. Thus, Jeremy Bentham had designed a new kind of rehabilitative architecture in order to prepare people for their inevitable role in an industrially productive society. This architectural project was initially designed by his brother Samuel Bentham as a factory and was then elaborated by Jeremy Bentham as an inspection house to be later called *Panopticon* (Bentham: 1843b: 97).

2.1 Jeremy Bentham and the Panopticon

Jeremy Bentham was one of the well known members of the English Utilitarians (Stephen: 1900: 1). The English Utilitarians were a group who "for three generations had a conspicuous influence upon English thought and political action" (Stephen: 1900: 1). The aim of the Utilitarian action was to raise the notion of 'individualism' as a mission for the individual to evaluate his or her role in the society. Consequently, the role performed by the individual would superintend, activate or dismiss the strict rules of the Eighteenth Century institutions in England. These institutions were the British Constitution, the government and the royalty, legislative and administrative institutions, the army, navy, church, and the universities (Stephen: 1900: 56).

However, it was the Utilitarians' belief that tradition could not be thought of in the absence of these institutions. That is to say, tradition and the institutions, for the British, have been the outcomes of each other. The emergence of such institutions in the British history, has been the result of the transformation of tradition through social development.

> By instinct, rather than conscious reasoning, Englishmen had felt their way to establishing the 'palladia of our liberties': trial by jury, the 'Habeas Corpus' Act, and the substitution of a militia for a standing army. (Stephen: 1900: 52)

As Sir Lesley Stephen (1832 - 1904), a social historian, explains, for the Utilitarians, tradition was not to be rejected but to be a constant reference for a new system of thought. This system, however, did not develop with reference to any abstract principle or strict plan, but was constructed on a system of "checks and balances" that was inspired by the "wisdom of the ancestors," in other words, by tradition (Stephen: 1900: 51). According to their theory, "the Utilitarian doctrines were worked out with a constant reference to practical applications" (Stephen: 1900: 1). In short, "traditional has been transformed into empirical" for the Utilitarians (Stephen: 1900: 52).

In the Eighteenth Century England, this new school of thought was supported by excessive traditional material such as the tradition of law. Thus, these traditions formed the grounds on which Jeremy Bentham developed his works. Some of these works can be listed as *Fragment on Government (1776), Introduction to the Principles of Morals and Legislation (1789),* and finally *The Panopticon, or the Inspection House (1791),* which will be one of the primary concerns of this study.[2]

Stephen explains that Bentham's main goal was to develop a science out of morality to explore the "goodness" in man. Furthermore, Bentham searched for means of introducing a "moral sense" by continuously considering its relation to man's desire for happiness (Stephen: 1900: 241).

> His main point, at any rate, is clear. He argues briefly that the alternative systems are illusory because they refer to no 'external standard'. His opponents, not he, really make morality arbitrary. This, whatever the ultimate truth is, in fact the essential core of all the Utilitarian doctrine descended from or related to Benthamism. Benthamism aims at converting morality into a science. Science, according to him, must rest upon facts. It must apply to real things, and to things which have definite relations and a common measure. Now, if anything be real, pains and pleasures are real. The expectation of pain or pleasure determines conduct; and, if so, it must be the sole determinant of conduct. The attempt to conceal or evade this truth is the fatal source of all equivocation and confusion. Try the experiment. Introduce a 'moral sense.' What is its relation to the desire for happiness? (Stephen: 1900: 241 – 242)

Bentham's interest in the relation between "moral sense" and "man's desire for happiness" is crucial, since Bentham tries to change what makes man "happy". What used to make man "happy" were laziness, dishonesty, and earning money from illegal means. For Bentham, this situation of society had to change into industriousness, honesty, and thus, men would become hardworking individuals and gain their possessions legally. Bentham develops a system of rehabilitation where the individual is to find happiness within a reasonable "moral sense" (Bentham: 1791a: 170).

As he explains in his studies, Bentham, who was deeply concerned with what was "known to be good" within the society, sought for means of punishing criminals in a humane way to bring the "good" out of them. The "moral sense" for Bentham was in the British penal code. Bentham studied much on the British system of punishment (Bentham: 1791a). However, he believed that punishment itself was an act of evil. He also believed that punishment had to be exercised in such a way that the criminal suffered the least of pain. Thus, Bentham intended on establishing a system of punishment,

by which the act of punishment would be exercised in such a way that the criminal would suffer the minimum amount of pain and the greatest amount of progress would be achieved. This would be possible through the reformation of the system of punishment that was being used at that time, which was the British penal code. Thus, Bentham's primary intention was to reform this code, for he believed that the system of the time was insufficient, since it depended more on the exhibition of torture than it depended on the maintenance of the criminal's well-being (Bentham: 1791a: 99).

> In law as in morals, Bentham was indefatigable in his argument that it is more efficient to govern through a knowledge of the good that really motivates people than through an appeal to principles upon which they would have to agree irrespective of what they might naturally want. It was the time when doctors and civil servants started their long dispute with jurists over the knowledge of that to which law and morals should apply. (Rajchman: 1991: 62 –63)

Thus, he studied the system of punishment and its application as a whole. The gathering factor of his studies was to be the organizational scheme of the institutional discipline (Bentham: 1791a). Bentham, who was interested in the improvement of the services of rehabilative institutions, studied the so-called "prison architecture". Bentham was eager to create schemes for the progress and development of such institutions. With the influence of his brother, he found himself involved with an architectural project, which was a design of a prison. With the co-operation of architects, he finished the design of the inspection house, *The Panopticon* in 1791 (fig. 2.1, fig.2.2) (Stephen: 1900: 193).

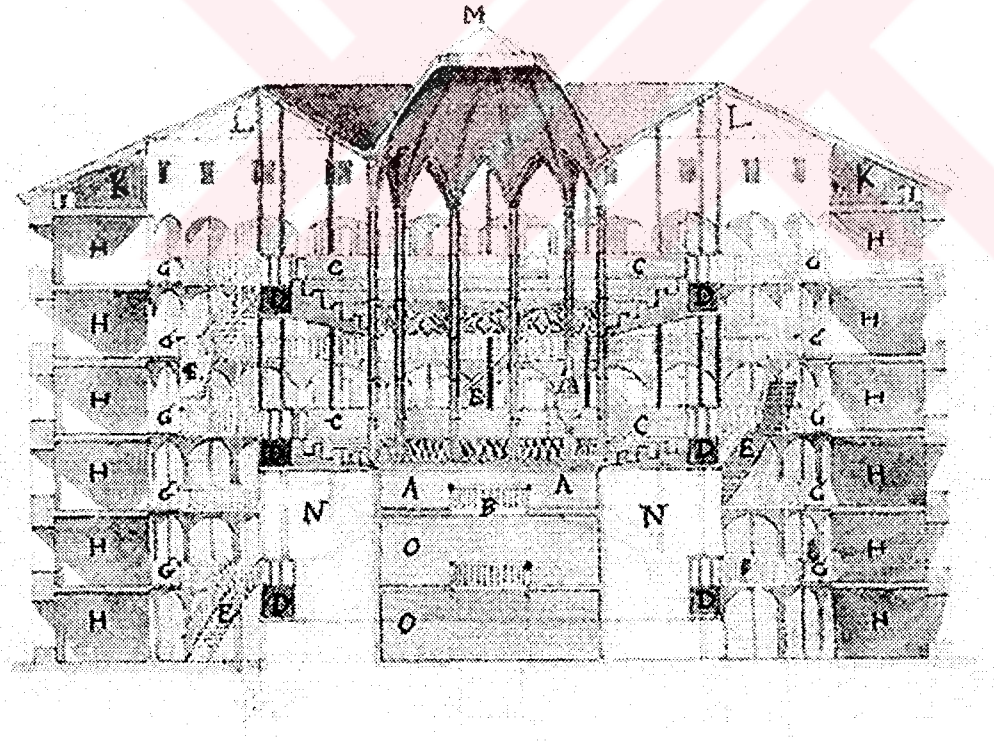


Fig. 2.1 Bentham's original project of the panopticon.
Source: Janet Semple. Bentham's Prison: A Study of the Panopticon Penitentiary. Oxford; Clarendon Press, 1993: 115.

In the figures 2.1 and 2.2, the two sections represent two different stages of design. The explanation to the codation in the figure 2.2 is as follows:

A. Inspector's lodge
B. Light well
C. Chapel galleries
D. Inspection galleries
E. Staircases for vertical circulation
G. Cell galleries
H. Cells
K. Rooms for technical purposes such as the annular cistern
L. Great annular skylight
M. Central skylight
N. Circular opening to light the inspector's lodge (Bentham: 1843a: 172)

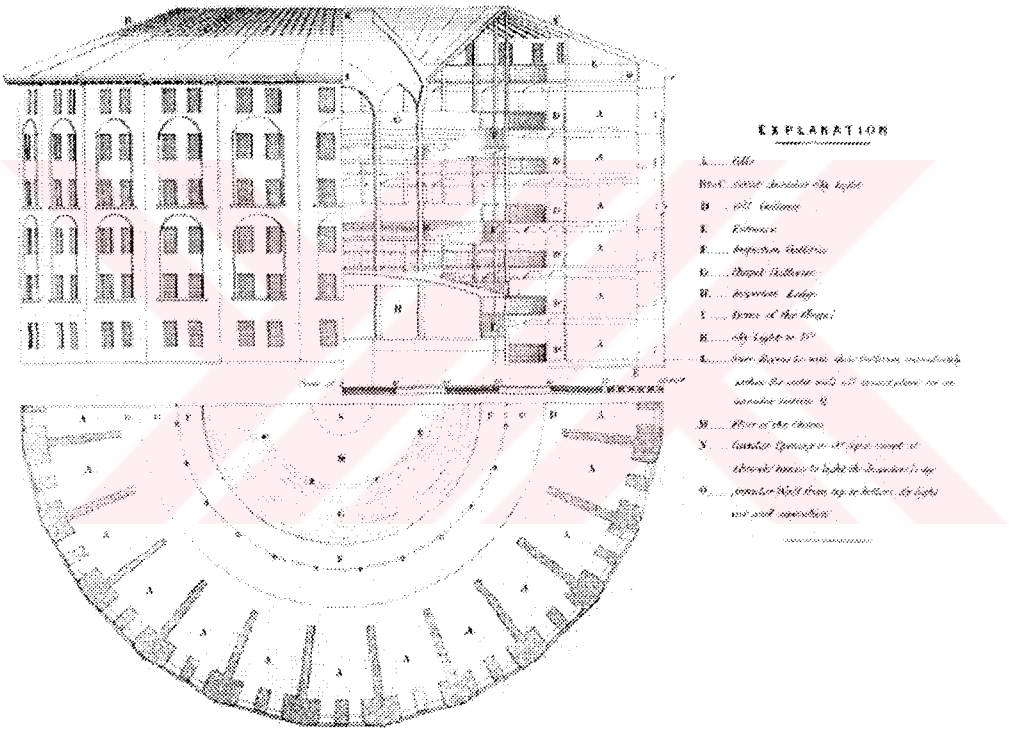


Figure 6.4 Plan of Bentham's Panopticon
Source: The Works of Jeremy Bentham, ed. John Bowring (Edinburgh: William Tait, 1843).

Fig. 2.2 Bentham's original project of the panopticon, or the Inspection House.
Source: Michel Foucault. (1975), Discipline and Punish, 1979: 171.

2.2 The Economy of the Work space

According to the contemporary social critic Hubert Dreyfus, the panopticon has been conceived as a compilation of knowledge, power, and the control over the individual in "one disciplinary space". Thus, this space constituted a disciplinary technology, an instrument of transforming the human body into a productive entity to provide an economy of the workspace (Dreyfus: 1982: 189).

> The Panopticon brings together knowledge, power, the control of the body, and the control of space into an integrated technology of discipline. It is a mechanism for the location of bodies in space, for the distribution of individuals in relation to one another, for hierarchical organization, for the efficient disposition of centers and channels of power.
>
> The Panopticon is an adaptable and neutral technology for the ordering and individuating of groups. Whenever the imperative is to set individuals or populations in a grid where they can be made productive and observable, the Panoptic technology can be used. (Dreyfus: 1982: 189)

As defined by Bentham himself, the panopticon was basically an architectural project, developed in order to be a "mill for grinding rogues honest, and idle men industrious" (Bentham: 1843a: 81). The intention of the project was to create an effective work environment with the rehabilitation of work power. "Fraud, laziness, sabotage, bad workmanship, illness, and incompetence could be extremely costly when multiplied by the increasing size of the industrial apparatus" (Dreyfus: 1982: 157).

For Bentham, the significance of this project mainly lies in its intention in providing the economy of work power and the productivity in its workspace considering both the authority and the prisoners. This economy of the workspace is provided by "a contractor." The contractor who would take this responsibility on behalf of the government, would be in charge of the management of this prison. The contractor would manage this disciplinary space by using the work power of these convicts for his own profit. The prisoner who works for an average or a lower price than a free person would gain money for his expenditures, learn a skill for his after-life and would even be able to guarantee his life after prison (Bentham: 1791b: 51 – 68; Dinwiddy: 92). Here, it is seen that Bentham has thought of an economy, which provides benefit for both the institutional authority, and for the criminals. Both opposing sides in the panopticon would benefit from the productivity in this disciplinary space.

The control of the management had already been sketched by Bentham. The inspector was expected to publish reports and accounts of the activities taking place including the punishments. These were to assure the convicts' health and to prevent the possibility of maltreatment. Additionally, he conceived a theatrical display in the panopticon, which would create displayed objects out of the prisoners and a scene of what was occurring in the work space (Bentham: 1791b: 62 – 66). John Dinwiddy, a social historian, asserts that this would provide authoritative and public attendance as a further form of control. This was a part of Bentham's theory of "universal transparency". To hide the act of punishment and what was happening in the disciplinary space of the prison would no longer be

possible due to the applications into architecture of Bentham's "universal transparency" (Dinwiddy: 1989: 92 - 93). This transparency also provided the exhibition of the act of punishment, of the body of the individual, of the economy and of the "productivity" in the workspace. Bentham's goal was in general to provide a transparent society deprived from all possible negative factors that were the results of the obscurity and secrecy of enclosed institutional spaces. These obscure spaces supported negative factors for the society such as "dishonesty", "idleness", "indigence" and consequently "bad workmanship" (Bentham: 1791b: 77).

Foucault states that Bentham's ideal was correlative to the social enlightenment in his period. Jan Jacque Rousseau was one of the leading revolutionists of the Enlightenment period, the same period that Bentham had developed his innovative studies. The common ideal of the period was a society that contained no dark spaces, which were established mainly by royalty to hide their own sources of power. Thus, the intention of the revolutionists in the Eighteenth Century was to transform society into a totally visible entity that was cleared of obscure spaces (Foucault: 1980c: 152).

> I would say that Bentham was the complement to Rousseau. What in fact was the Rousseauist dream that motivated many of the revolutionaries? It was the dream of a transparent society, visible and legible in each of its parts, the dream of there no longer existing any zones of darkness, zones established by the privileges of royal power or the prerogatives of some corporation, zones of disorder. It was the dream that each individual, whatever position he occupied, might be able to see the whole of the society, that men's hearts should communicate, their vision be unobstructed by obstacles, and that opinion of all reign over each. (Foucault: 1980c: 152)

A social historian, Janet Semple, asserts that Bentham extended his thoughts on "universal transparency" into the urban scale. According to Semple, Bentham further wished to apply the transparency that he had formulated in the panopticon in a larger size. In her studies, Semple refers to a "Panopticon Town" or "Panopticon Hill", where Bentham had in mind a larger community than in the disciplinary space of the prison (Semple: 1993: 285). His intention was to envision a transparent society, which was to work on his principles of economy and transparency in a larger model. According to Semple, Bentham's ideal, in this case, was to provide the control of this town. Semple states that Bentham himself wished to undertake the upkeep of the environment and especially the surrounding roads and the landscape. He further intended to carefully apply every minute detail of his thoughts into his projects as if he was the constructor himself. Bentham was very careful in his studies, since he reasoned every aspect of his thoughts and every formulated detail. Semple states that Bentham noted down every thought as if he were afraid that they were to escape his attention later (Semple: 1993: 297). Therefore, not even the minutest aspect of his studies escaped his notice. Bentham's detailed works have formed the basis of the perfectness of his study of the panopticon. Semple states that although Bentham has mainly developed his works on the behalf of reasoning in the panopticon, it is seen that in his thoughts of the "Panopticon Hill" he has sketched a scene which has gone beyond his rational and unemotional decisions in the panopticon prison. According to Semple, he has gone even further and entered the field of utopia. Here Semple emphasizes that Bentham dreams of a luxurious "Panopticon Tavern", which greets the newcomers of this town, and

in it he also visualizes a fantasy home for himself. As Semple explains, "[b]izarre and fantastical though these designs and architectural plans may seem, they were capable of achievement," but Bentham later left these thoughts aside to develop another project, the so called: "a castle in the air, a sky scraper" (Semple: 1993: 297).

Since the project did not seem so sincere, Bentham's thoughts were also conceived as utopia by the government. Bentham did not receive the same respect he gave to the details of his design from the authorities. He completed this project with insufficient financial aid and limited interest of the government, and although he had completed his project, it was never constructed. The reason was mainly the government's lack of will to realize such a controversial project. In one of his letters, Bentham states his problematic situation to an aristocrat as follows:

> When, in my character of accepted Contractor, the Administration here broke the faith of Parliament that had been pledged to me, they substituted, both for the building and management, to my avowedly interested, uninterested hands. The consequence has been, as appears by the authentic and published documents, that a building not designed for more than 600 prisoners has already, without being yet finished, cost more than ten times as much as the one I had offered to erect and keep employed in it 1,000 prisoners: how much can I not say, without entering into an examination, for which it is not possible for me to find time. (Bentham: 1821: 168)

Stephen also states that Bentham's pleas for help from the aristocrats and the government to receive attention and financial aid respectively (Stephen: 1900: 193 - 205).[3] As John Hirst, a social historian, states "[t]o Bentham's infinite frustration the scheme, shuffled between departments, was delayed and thwarted. The panopticon plan was finally discarded in 1820, after a long quarrel over the compensation that Bentham was to receive in return the money he had spent" (Hirst: 1995: 274).

According to Hirst, one reason for the government's refusal of the panopticon model was the British practice of convict transportation from England to New South Wales, a state consisting the east half of Australia. This practice had been developed in the same period when in which Bentham had formulated the panopticon. The British government had begun sending convicts to this state, offering land-ownership in this newly developing colony (Hirst: 1995: 274). Bentham in response opposed and criticized this practice by developing a debate against it. Bentham's intention was to make the government deter from this practice in favor of his panoptic scheme. Hirst further explains that this "prompted Bentham to write a pamphlet titled "Panopticon versus New South Wales", in 1802" (Hirst: 274). In this pamphlet, Bentham argued that this practice would not be a good form of punishment, the convicts could not go to the well established communities. However, the result of this governmental practice became a success in rehabilitation and penal reform, since governmental supervision in New South Wales secured land-holdership of ex-convict. (Hirst: 1995: 274 - 275).

Nevertheless, his project was partially used in Edinburgh Bridewell Prison in Scotland, which established "an important stage in the development of the penal system" (Stephen: 1900: 193 - 205). With this project, the penal system was to make the indolent willing to work. The dishonest in the end would earn his living through honorable means. This would be possible by the application of the panoptic system of punishment. Thomas A. Markus, an architectural historian, asserts that

following an architectural competition, its design was developed by a British architect Robert Adams (fig. 2.3). According to Markus, this was an application of prison architecture, which most resembled Bentham's panopticon, in spite of the fact that it was semi – circular. Although it was not fully approved by Bentham, it still was a step in realizing Bentham's ideals of increasing a society's comfort and work power (Markus: 1993: 123 – 125).

Moreover, according to another historian Randall Mcgowan, penology further developed with the panoptic prison model of solitary confinement after the construction of the national prison at Pentonville in 1842 (McGowan: 1995: 80). This prison at Pentonville, which was constructed as a derivative of Bentham's principles of the panopticon, became a model for prison reformation (fig. 2.4). This derivative of the panopticon was composed of four wings that radiated from a central point, from which one could observe each cell door. McGowan adds that the Pentonville Prison eradicated every sense of individuality in a similar way as in the original panopticon. As McGowan further expresses, prisoners wore hoods when they emerged from their cells to insure total isolation (fig. 2.5). McGowan additionally states that the prison authority went even further and maintained that the names of the convicts were replaced by numbers (McGowan: 1995: 101). However, the Pentonville Prison was not commonly favored as a successful prison model, since it was accepted that the convicts in this prison type were more likely to loose their mental health. Another historian, Patricia O'Brien expresses that, no matter how, this prison type was widely built across Europe in the late Nineteenth Century (O'Brien: 1995: 202).

> Nevertheless Pentonville-type, radial prisons continued to be built in Holland, Belgium, Spain, Switzerland, Scandinavia, Austria, Hungary and Portugal in the latter half of the nineteenth century, even after the efficacy of solitary confinement had been called into question. (O'Brien: 1995: 202)

Thus, the Pentonville Prison, constituted an important step in the diffusion of Bentham's model of solitary confinement into society. This prison was the physical application of Bentham's theories, which the government conceived as "utopic". Nevertheless, this prison constituted the beginning of a penal development that Bentham had primarily defended.

Jeremy Bentham's invention of the panopticon constituted one of the beginnings of a social transformation. As Foucault explains, it is possible that Bentham had been influenced by other projects that had contributed to the social transformation of the Eighteenth Century, such as those by Claude-Nicolas Ledoux (fig. 2.6), (Foucault: 1980c: 147 - 148).

> The installations built by Claude-Nicolas Ledoux, notably the salt plant which he constructed at Arc-et-Senans serve to give the same effect of visibility but with an additional feature: there was a central observation-point which served as the focus of the exercise of power and, simultaneously for the registration of knowledge. (Foucault: 1980c: 147 - 148)

According to Helen Rosenau, a social historian, Robert Owen (1771 – 1858) developed an urban scheme for New Lanark which was "primarily based on education and the 'Institution for the Formation of Character' (fig. 2.7) (Rosenau: 1959: 150). Owen's scheme was composed of a complex of schools, a library, a lecture-room, a place of worship, a public kitchen and mess-rooms positioned on a central line. Additionally, around these public spaces were private apartments and dormitories.

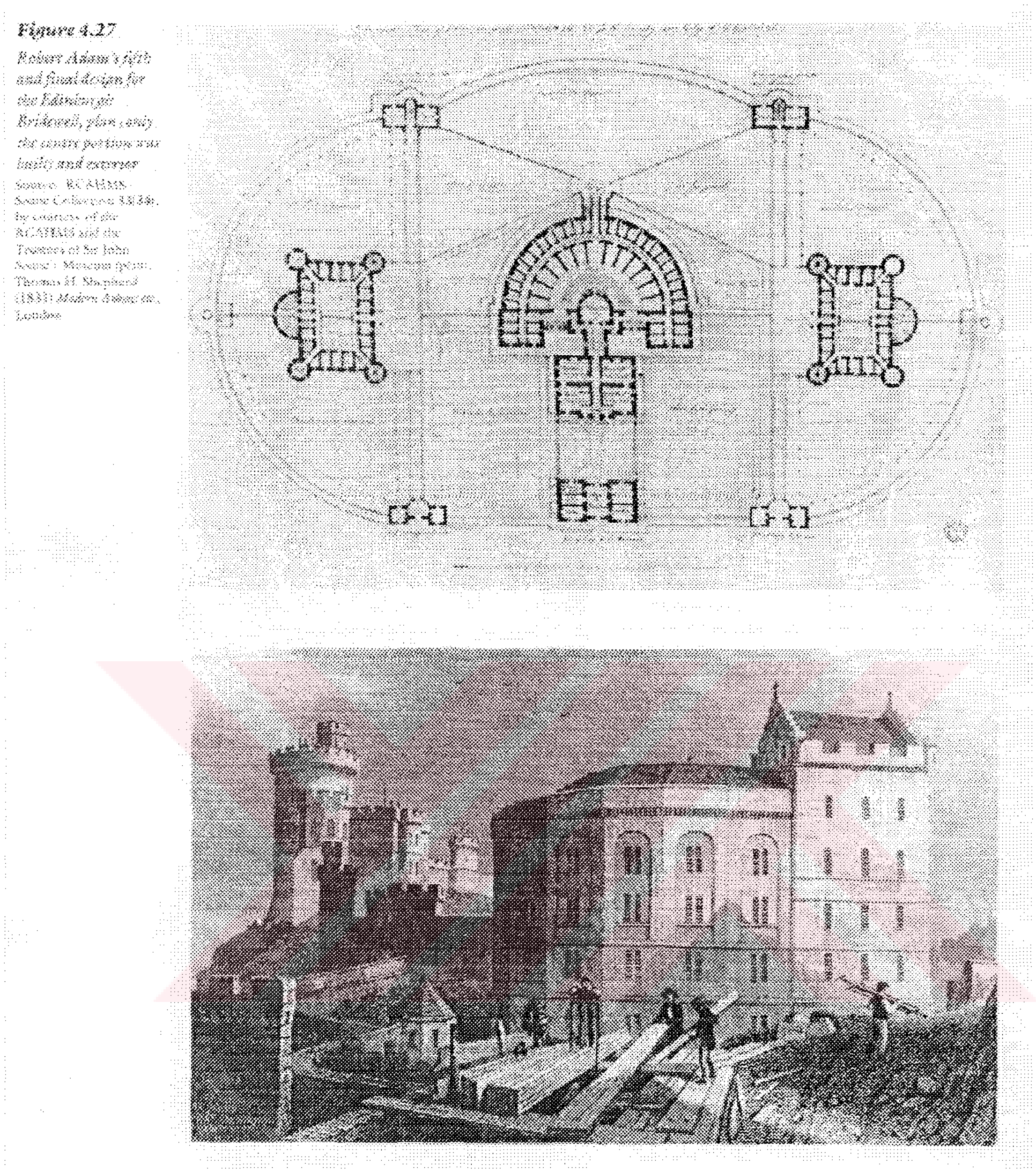


Fig. 2.3 A plan of the Edinburgh Bridewell Prison (1791), designed by Robert Adams.
Source: Thomas A. Markus. <u>Buildings and Power: Freedom and Control in the Origin of Modern Building Types.</u> London, New York: Routledge, 1993: 124.

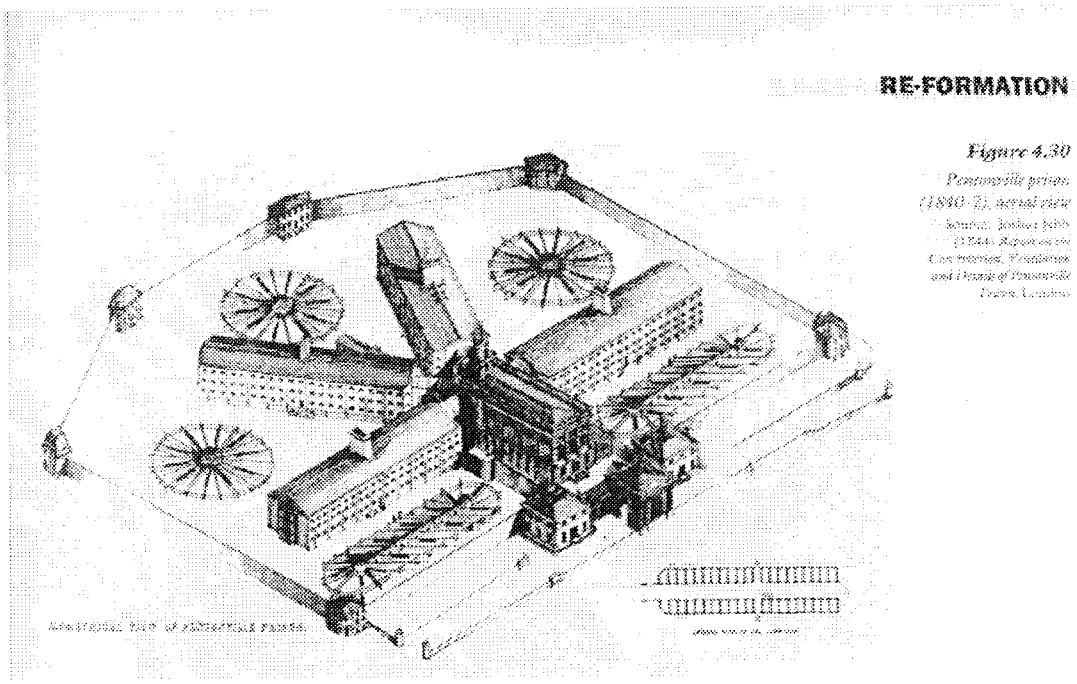


Fig. 2.4 An aerial view of the Pentonville Prison (1842).
Source: Thomas A. Markus. Buildings and Power: Freedom and Control in the Origin of Modern Building Types. London, New York: Routledge, 1993: 127.

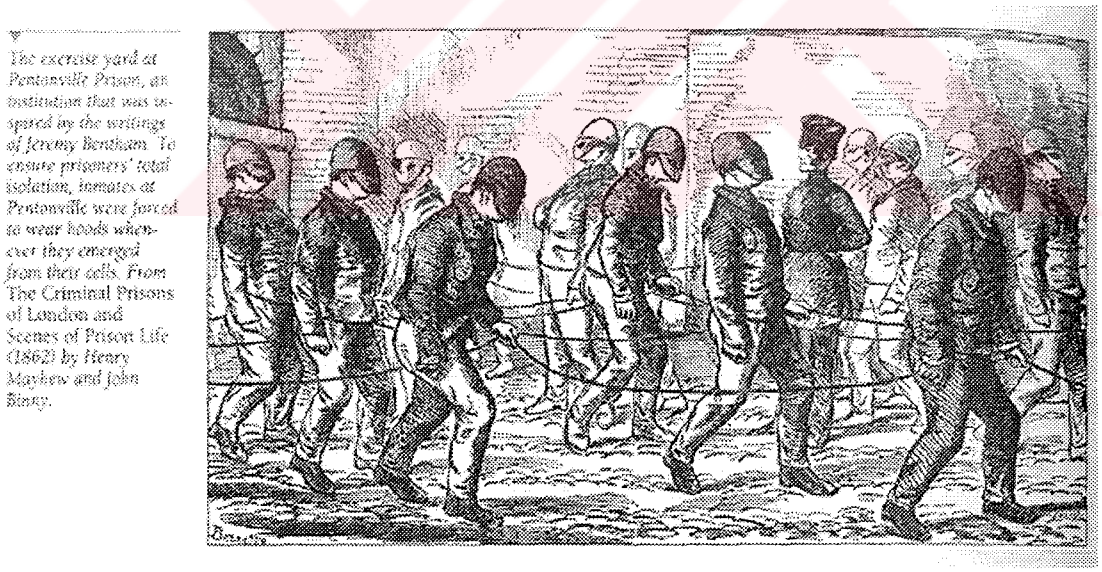


Fig. 2.5 The exercise yard at Pentonville Prison (1842), with prisoners wearing hoods to ensure total isolation.
Source: Randall McGowan. "The Well-Ordered Prison: England, 1790 – 1865", The Oxford History of the Prison: The Practice of Punishment in Western Society. Norvall Morris and David J. Rothman (ed.s).New York, Oxford: Oxford University Press, 1995: 102.

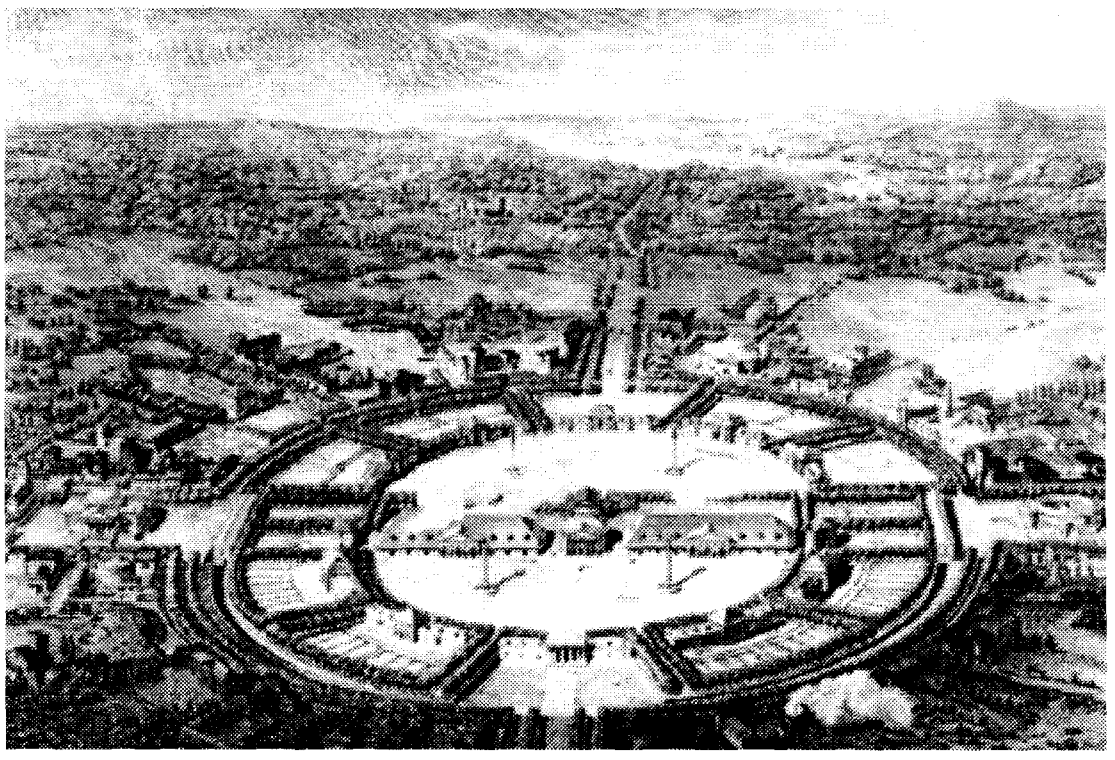


Fig. 2.6 Salt Plant by Claude-Nicolas Ledoux (1804), at Arc-et-Senans, France.
Source: Kenneth Frampton. (1980), Modern Architecture: A Critical History. London: Thames and Hudson, 1992: 16.

According to Rosenau, Owen's primary intention was to provide communities of "unity and co-operation" similar to Bentham's ideal of developing a vigorous and moral environment (Rosenau: 1959: 150). Rosenau further states that Owen and Bentham were personally acquainted with each other and that "Bentham was one of the partners in the New Lanark enterprise (Rosenau: 1959: 150). As it is explained by Rosenau, although he was associated with Bentham, Owen was formally influenced by Ledoux's design of the Salt Plant. Instead of circular forms, Owen favored linear patterns such as in Ledoux's Salt Plant, (Rosenau: 1959: 150). However, Owen's scheme was still ideologically similar to that of Bentham's. As Rosenau emphasizes Owen, Bentham and Ledoux were "belong(ed) basically to the Age of Enlightenment" (Rosenau: 1959: 150 - 154). These previous examples which are also early examples of town-planning concept that relates to Bentham's ideals in another way. Benevelo explains that the changes in the field of town-planning carry much resemblance to the context of the creation of the panopticon, since they were the results of the same processes of the combination of technical and theoretical developments (Benevelo: 1963: 34).

> In the years between 1815 and 1848, from Waterloo to the February Revolution, the technical and the political aspects of thought and research in the field of town-planning were very closely, almost inextricably, connected. (Benevelo: 1963: 34)
>
> This is typical of the culture of the time, as exemplified by the case of Jeremy Bentham, the Radical philosopher who put the best years of his life, and a larger part of his inheritance, into realizing his 'Panopticon', a model prison built in such a way that only one goaler was needed to supervise all the prisoners. (Benevelo: 1963: 34)

As further explained by Benevelo, the rise of rational thought in the late Eighteenth Century gave birth to the "pre-history," or in other words the archaeology of town planning. Town planning developed, in this period, on the principle of combining technical and ideological features similar to Bentham's process of inventing the panopticon. Benevelo adds that this principle of combining technical and ideological knowledge was the basic product of rational thought in the field of town-planning. Besides the fields of penology and disciplinary space, on which, it was Bentham who had studied and contributed to its development (Benevelo: 1963: 34).

> The pronounced tendency to associate the technical and the ideological in town-planning seems disconcerting and ingenuous to us today, in that it was based upon an inaccurate assessment of the forces involved and of the real difficulties to be overcome, which were to reveal themselves gradually as time went on. Nonetheless this capacity for association was a productive source of inspiration, and it bore witness to the ideal unity underlying the various nineteenth-century experiments even when, after 1848, they began to reveal remarkable diversity among them-selves. (Benevelo: 1963: 34)

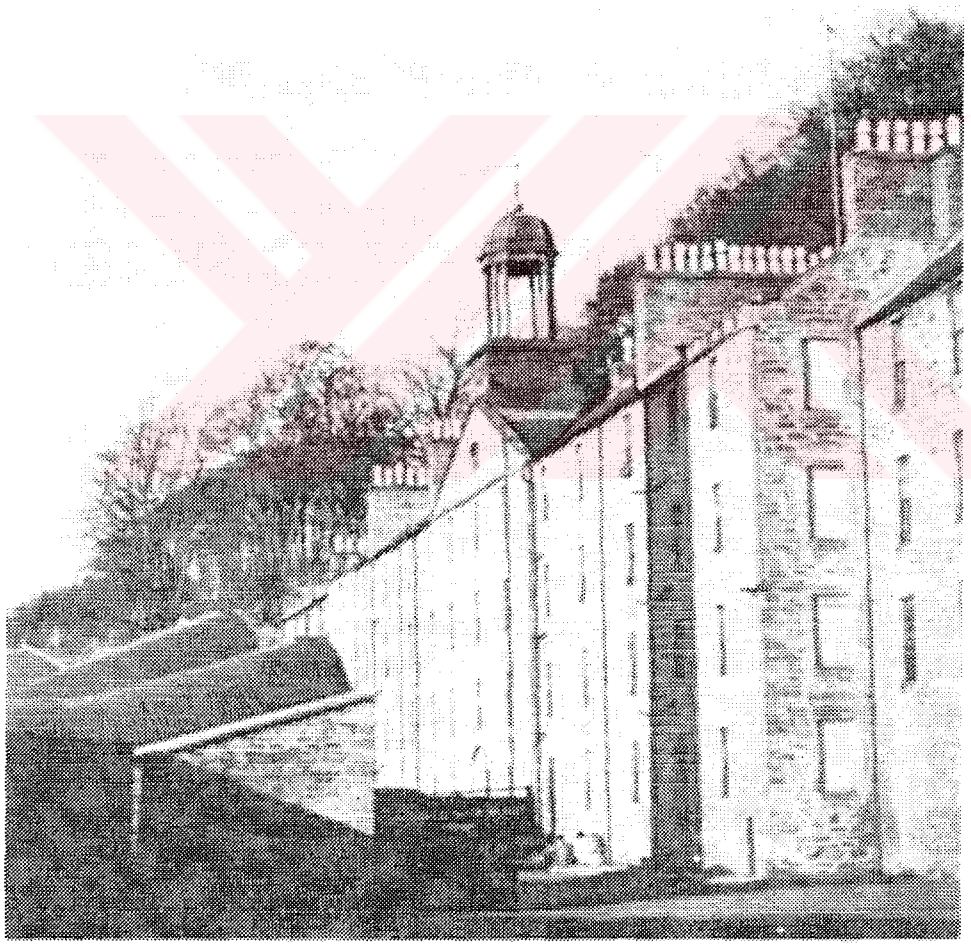


Fig. 2.7 Robert Owen, Original Part of the New Lanark Mills, (1820).
Source: Helen Rosenau. (1959), The Ideal City: Its Architectural Evolution in Europe. London, New York: Methuen & Co., 1983: 151.

As explained by Benevelo, the practice of town-planning had been exercised in the period beginning from the late Eighteenth Century until the middle of the Nineteenth Century and should be conceived as a reasonable act in that period. It was later understood that in town-planning there were more forces than visible that had to be manipulated in this discipline. Additionally, all of these forces had to be integrated into an overall scheme. Benevelo further states that the first achievements of town planning in the late Eighteenth Century are assumed unreasonable in the contemporary conditions (Benevelo: 1963: 34).

Thus, this period, though in terms of actual achievement was in a sense the pre-history of town planning, was extremely important in that it saw the formation of various fundamental theories. (Benevelo: 1963: 34)

2.3 The Evolution of the Panopticon

> With him (Bentham) the building itself was to operate as the instrument of control, instruction and correction. Jeremy Bentham had been to Russia where his brother, Samuel, was for a time in the service of Prince Potemkin. And it was from Russia, in 1787, that Bentham began to advertise his big idea which, apparently, derived from proposals for a factory which Potemkin had in mind. (Rowe: 1994: 79)

Jeremy Bentham writes about himself and his brother Samuel Bentham's role in his autobiography. He distances himself from his works by writing as a third person subject:

> Incidentally in various works of his, the impossibility of any work being well done by a *Board*-by a *Committee,* by a body of men consulting in secret-in a word otherwise than by some single and declared individual has been maintained: more particularly in his work on the *Panopticon*. What he says on this subject is the result not merely on theory deduced from the consideration of the universally-actuating principles of human nature, but of a great body of political experience, collected within the last forty years: collected not only by himself but by a younger brother of his of whose education he had the management, and who for several years had the English Naval works-Docks Ports and Royal Navy included, under his management. (Bentham: 1821: 193)

Jeremy Bentham states that his studies were actually a developed version of his brother's observations in Russia. Jeremy Bentham was influenced both by his brother's studies and by his own observations during his visit to Russia (Bentham: 1843b: 97).

Simon Werret, who is a social historian, underlines the fact that Samuel Bentham initially thought of the panopticon while he was under the command of Prince Grigorii Potemkin in Russia. The panopticon was firstly designed by Samuel Bentham in White Russia in 1786. During this period Samuel Bentham as an engineer was responsible for the industrial developments in Potemkin's estate. Potemkin owned a large amount of land and many factories, and during the 1780's, as an aristocrat, he was one of the most influential to the Russian royalty (Werret: 2). Werret continues to explain that Potemkin, with his desire to influence Catherine II, who was at reign at the time, organized a tour of his estates. These estates were royal land in Krichev and were under his command. Since this land was

under development, the region was called "New Russia". For these newly developing settlements, Potemkin's wish was to give the impression of a state which used knowledge as a tool for production. Werret states that for Potemkin, "New Russia would reflect the ancient metaphor of the 'cultivation' of knowledge, it would be the 'garden of the sciences'" (Werret: 4). This was an ideal development policy for the Russian Empire.

Since Prince Grigorii Potemkin was aware of the policies of Catherine II, his intention was to challenge her with her own policies. Catherine II was to create a "Russian Eden". Prince Grigorii Potemkin relevantly wished to have this ideal turned into reality. The result of this "Russian Eden" would be an "Enlightenment Garden," where "people are encouraged (rather than forbidden) to partake of the tree of knowledge" (Werret: 4). For this ideal to take place, Samuel Bentham was commissioned to contribute to the formation of this "Enlightenment Garden". Samuel Bentham "would present the Imperial tour with an idealized Russian production estate," as "part of Potemkin's idealized Russian Eden" (Werret: 4).

Werret asserts that for the success of this tour of the Russian court, Samuel Bentham created the panopticon in Potemkin's estate at Krichev as a factory. Samuel Bentham considered the idea of "theatricality" as an essential milieu to supervise the workers of Potemkin's factories. Samuel Bentham's initial design of the panopticon with the inspector's lodge at the center, was to offer a theatrical display for the Russian court (Werret: 5).

> The estate at Krichev shared this Russian culture of theatricality. As part of the Crimean tour, Bentham and Potemkin's efforts transformed the estate into a landscape of enlightened prosperity, an idealization of Russia's potential as a 'garden of the sciences', to be presented to the Empress and her noble entourage. It was amidst this theatre of horticulture, model factories, palaces and gardens that the Panopticon was to be built. Besides offering a solution to Bentham's immediate problems with his undisciplined supervisors, the Panopticon formed part of Potemkin's theatrical display for the Russian court. (Werret: 5)

Werret explains that the panopticon, at this point, was actually designed as a factory to supervise Samuel Bentham's English workers. A centralized plan with a node for inspection at the center was ideal for this. However, for the Russian nobility, Samuel Bentham had to formulate a space that would be an instrument to control the peasantry. Werret underlines the resemblance between the traditional means of controlling the peasantry in Russia through the Orthodox Church, and the disciplinary policy of control in the panopticon. Both of these architectural schemes, besides being similar in form and function, are also similar in their disciplinary roles in the society.

As Hamilton asserts, this resemblance can also be seen in the similarity between the intentions of the Benthams and Catherine II in the utilization of space as a medium of exercising power. Catherine II's policies consisted of using architecture as a political tool. Her "passion for building encompassed an architecture of serious moral purpose" (Hamilton: 1954: 218). According to the historian George H. Hamilton, church architecture constituted an important place in the period of the reign of Catherine II. Hamilton further states that leading churchmen, who supported her against her rivals, "maintained that it was proper for the Church to acknowledge the claims of the temporal

power" (Hamilton: 1954: 117). Thus, the architectural space of the church was an important medium for exercising power in the period of the reign of Catherine II.

> In the eighteenth century, the Russian peasantry learnt their place in the world through their relationship to God. The place where this process was played out was the Orthodox church. It was here that social identity was defined through a spatial structure, inherited from the Byzantine model, in which *visibility* played the central role. In this respect, there are close parallels between the system of power in operation in the Panopticon and that of the Orthodox church. When the Krichev Panopticon is considered within the context of the impending tour these parallels are crucial. (Werret: 6)

Werret states that the similarity between the panopticon and the Orthodox Church indicates that Samuel Bentham most probably had been influenced by the Orthodox architecture of the time (Werret: 2). The fact that the panopticon has been evaluated as a derivation of the Orthodox church requires further investment.

In general, the architectural scheme of the Orthodox Church is formulated as a structure which is covered by a dome (MacDonald: 1977: 32; Werret: 6). This dome which represents the place where God dwells, is indicated by a centralized scheme. This centrality is provided by the centrality of the dome and the position of God, since it is assumed that God "sees" everyone from this central point. Furthermore, Werret asserts that for orthodoxy, this scheme is a representation of the presence of God who watches every individual from the heavens (Werret: 7). The central role of "visibility", which is significant for the Orthodox Church, can be further understood through a comparison between European and Eastern churches.

Werret points at the difference between the architecture of the churches in Eastern and Western Europe to define the significance of the architecture of Orthodox Churches. According to Werret, the Christian churches in the West are identified with their long towers and spires and the Orthodox church is unique with its structure of the centralized dome (Werret: 6 - 7).

S. Vitale in Ravenna (ca. 530 – 540) can be given as an example to the architecture of Orthodox Churches (fig. 2.8). This church is considered to be a monument to Orthodoxy by architectural historians such as William MacDonald (MacDonald: 1977: 32). The Haghia Sophia in İstanbul (532 – 537 and 558 – 563) is another example of Orthodox Church architecture (fig. 2.9). With its significant features, this church constitutes an important model of the early Orthodox churches (MacDonald: 1977: 41). Both of these examples constitute an architecture of centrality, which is a characteristic property that comes from the Byzantine architectural tradition. According to this tradition, the central dome is the generating factor of this centrality and of the significance of the Orthodox Church architecture. Additionally, the Church of the Virgin of the Sign (1690 – 1704) in Dubrovitsi, Russia, has been given as an example to Orthodox Church architecture in Russia (fig. 2.10). The Russians, who were also generally Orthodox in religion, carried on a similar tradition in religious architecture. Russian church architecture resembles the religious architecture of the Byzantine with its centrality and with the use of the dome as a structural and figural element of central form.

Fig. 2.8 Aerial view of S. Vitale (ca. 530 – 48) in Ravenna, Italy.
Source: William L. MacDonald. Early Christian and Byzantine Architecture. New York: George Brazillier, 1977: plate 40.

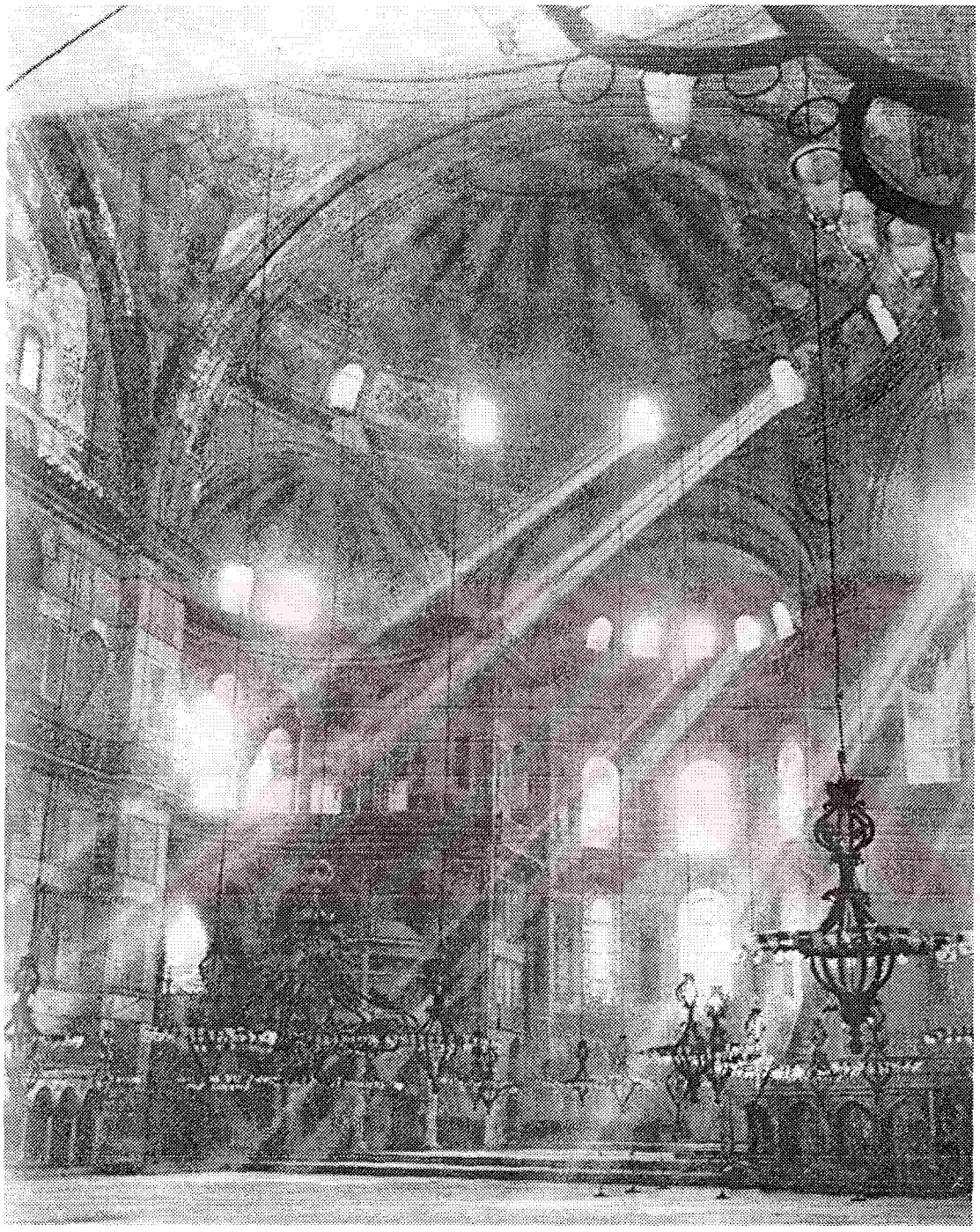


Fig. 2.9 Interior view of the Haghia Sophia (532 – 537 and 558 – 563) in İstanbul, Turkey.
Source: William L. MacDonald. Early Christian and Byzantine Architecture. New York: George Brazillier, 1977: plate 60.

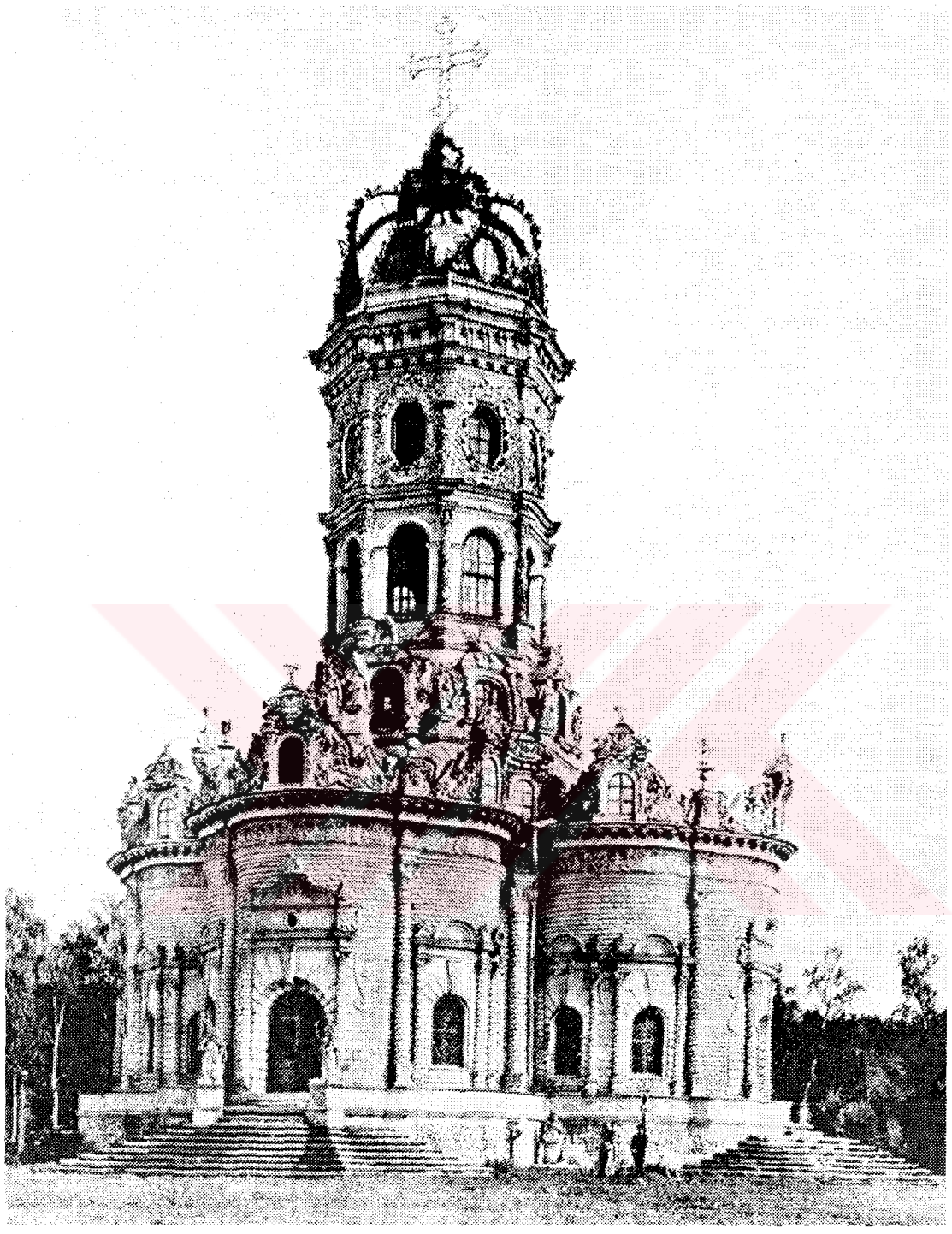


Fig. 2.10 Exterior view of the Church of the Virgin of the Sign (1690 – 1704) in Dubrovitsi, Russia.
Source: George H. Hamilton. The Art and Architecture of Russia. Bungay, Suffolk: Penguin Books, 1954: 90.

Fig. 2.11 View to the west of the chapel of King's College (1508) in Cambridge, England.
Source: David Watkin. (1979), English Architecture: A Concise History. London: Thames and Hudson, 1996: 73.

The chapel of King's College (1508) in Cambridge, England can be given as an example to Christian Church architecture of the west (fig. 2.11) (Watkin: 1979: 74 – 81). As it is seen in the figure, this expression of height is an achievement of a technical utilization of vaults similar to the utilization of the dome in Orthodox architecture. Both the dome and the vault are characteristic with their structural benefits and their figural expressions. However, both the vault and the dome signify different meanings. As explained by Werret, the height present in the Western church constitutes "a distance and a dislocation from God." Furthermore, the Western church is a representation of the eternal city on earth (Werret: 7). This implies an expectation of something to come in the future, and not of something of the present.[4] In other words, the structure of the European church symbolizes not a presence of God but of the heavens and of what is promised to the person in this world (Werret: 7).

On the contrary, the dome of the Orthodox church symbolizes the presence of God watching the mortals from heaven, according to Werret [5]. Thus, the Orthodox Church as a religious space is not where the individual searches for his future expectations, but is a space where one experiences the presence of God "watching" through the representational structure of the dome. Therefore, the Orthodox church constitutes an architecture, which demonstrates an "omnipotence and omniscience to those present" (Werret: 6). Furthermore, the centrality of the dome in the Orthodox Church signifies the "absolutist" vision of God. This "absolutist" vision is unlimited, unrestricted and since God is omniscient this vision is perfectly "all seeing" with no doubt (Werret: 9 - 10).

> The architecture of the western church symbolizes the possibility of experiencing God, whilst that of the Orthodox embodies the actuality of this experience, as it defines the presence of God on earth. (Werret: 7)

Werret asserts that although Jeremy Bentham states that the functioning of the act of surveillance present in the panopticon could be resembled to the action of an omnipresent God, he does not suggest any direct relation between the panopticon and the Orthodox church (Werret: 2).

However, such a parallel can be drawn between the Orthodox Church and the panopticon to indicate the similarity of centralized vision of the inspector and the "absolutist gaze" of God. This resemblance further indicates that the architecture of the Orthodox church might have been the source of inspiration for Samuel Bentham's design of the panopticon. Moreover, this resemblance indicates that the "absolutist" space of the Orthodox Church evolved into the "disciplinary" space of the panopticon (Werret: 8 – 10).

2.4 The Architecture of the Panopticon

After Samuel Bentham had designed the panopticon as a factory for the tour of the Russian sovereignty, Jeremy Bentham took this initial design and studied for the refinements to realize his theories on legislation and social reformation. These refinements consisted of many details. Bentham's intention was to realize his theories by the help of architectural details, one of which was in the use of lighting, where Bentham utilized daylight and artificial light to accomplish his ideas on

centralized surveillance. Bentham also thought of the hygienic conditions in the panopticon, such as air circulation, sanitation, and an acoustic system to transmit the orders of the inspector.

> Refinements included lighting, speaking tubes, water supply, sanitation and the circulation of warm air; and Bentham, to be later described as 'the Newton of legislation', described his invention as 'a way of obtaining power, power of mind over mind in a quantity hitherto without example'. There is a quite horrid fascination, I think, in looking at this building which is the model for so much later prison designs and which may be regarded as a perversion of the centralized churches and circular utopias of the Renaissance (Rowe: 1994: 79).

Bentham, maintained all these in order to accomplish a complete system of surveillance, whether as an after-model of the Orthodox Church or as utopia. Bentham's goal was to design a space which by itself worked like a machine of disciplinary technology. This machine functioned automatically by achieving all of Bentham's primary intentions. Actually, Bentham's intention in naming this design "panopticon" explains every aspect of the correspondence between the utilization of vision and the schematic function in this space. Bentham derived the name of the project "panopticon" from the Greek meaning "image that sees all".[6]

> In the year 1786, or 1787, I being on a visit to my brother, of a year and a half, or thereabouts, at Crichoff in White Russia, where he was stationed with a battalion of a thousand men under his command, on an estate then lately purchased by Prince Potemkin, Prime Minister of Russia, under Catherine the Second, the idea presented to him of a mode of architecture, to which I gave the name of Panopticon, from the two greek words, -one of which signified everything, the other a place of sight. (Bentham: 1843b: 97)

According to Bentham, the word panopticon developed in his thoughts while he was visiting his brother in Russia (Bentham: 1843b: 97). The word carries significance in relation to the architectural scheme of the project and to the context in which it was firstly created in Russia.

Architecturally Bentham's panopticon is an annular building with an inspection tower at the center, from where everything is seen and which signifies the exercise of power. The ring-like section of the building, which is situated at the periphery, is divided radially into cells. The interior void of the annular section provides a space, which has specific qualities for the inspection tower to maintain the view over the prisoners. The characteristic qualities of the panopticon are provided by the play of many factors of space in the building.

2.5 Bentham's Theory of Fictions

Miran Božovič, who is an art historian, asserts that in the panopticon, Bentham's ideal was to achieve a punishment system by placing the prisoner as a spectacle of the inspector, which deterred the prisoners already "inside" the panopticon from transgression. The prisoner would experience the least of pain as a spectacle of punishment. Additionally, this situation would constitute an example for the innocent people "outside" the panopticon (Božovič: 1995: 1 – 4, Bentham: 1791b: 99).

> In Bentham's eyes, punishment is first and foremost a spectacle: it is insofar as punishment is not intended for the punished individual, but for all

> others, that the execution of the punishment is a spectacle. The dimension of spectacle in punishment therefore stems from the deterrent theory of punishment itself. (Božovič: 1995: 4)

Božovič further asserts that an important aspect of the prisoner being a spectacle of punishment is what makes this punishment without pain effective. This effectiveness lies in the "fiction" created by the image of the inspector in the inspection tower. Bentham creates "the fiction of real punishment" by the using a stage effect within the institutions internal structure. The inspector does not give pain but continuously reminds the prisoner that there can be pain and torture with his "all seeing gaze" (Božovič: 1995: 8 - 9).

> Although the panopticon deters the innocent from committing offences by producing an appearance through reality, in order for this reality to be able to produce such an appearance at all, it must itself be sustained by another appearance, one that is not the effect of reality, but that is itself a fiction. If we were to remove this fiction from reality, we would loose reality itself. (Božovič: 1995: 8)

For Bentham, "the *apparent omnipresence* of the inspector," is together with "the extreme facility of his *real presence*" (Bentham: 1791b: 45). As interpreted by Božovič, this brings to light the reality of the absence of the inspector. The inspector is not seen but visualized as a shadow in the tower. The less the inspector is seen as a corporeal entity, the more the presence of the inspector is there as an omnipresent identity. Bentham relates this omnipresence to the existence of God (Božovič: 1995: 8 - 9). Thus, this presence of the omnipresent constitutes a fiction for the prisoners; an "all seeing gaze" and an ever-present act of punishment.

2.5 The Play of Light and Sound in the Panopticon

Bentham utilizes a play of light within the panopticon to realize his "fiction of the omnipresent" (Božovič: 1995: 8 - 11). In this building, light is manipulated through the cells. Bentham achieves an enclosure by stipulating large openings in the form of windows on the outer wall and large grilles as the inner partitions. Therefore, the prisoner who receives maximum amount of light is comfortably situated in his cell where he has the chance of carrying on his personal activities, He may be involved with, what I call an "occupational therapy," with the light he receives from the exterior. This occupational therapy is considered to establish the meditation which is necessary for the prisoner's own rehabilitation.

Reconsidering the light factor, it is obvious that the tower at the center has a controversial situation. The tower is left in darkness where it receives an optimum amount of light to view the prisoners through each cell at the periphery. As a consequence, although the prisoners are clearly seen from the tower, the inspector cannot be seen from the cells. Božovič asserts that this effect of light reinforces the omnipresence of the inspector (Božovič: 1995: 12 - 13).

Light was not only a necessary element for the periphery, but it was also essential for the activities at the center. The inspector was able to clearly view the prisoners with this light came from

the periphery. Božovič explains that light was necessary at the center since the inspector in his room would have to take notes and write reports of the prisoner's behaviors (Božovič: 1995: 13). Additionally, Bentham thought of locating a library in the inspector's room. In this central room the inspector would be expected to do the bookkeeping and to arrange the circulation of the books among the prisoners. For the accomplishment of this, Bentham decided to incorporate the use of a lamplight or lantern which would illuminate the watch room in such a way that the lamp would give a favorable amount of light for only the shadow of the inspector to be seen by the prisoners (Božovič: 1995: 13). The illumination that the lamp provides, however, does not enable the prisoners to see the interior of the tower, but provides the tower to glow and to consequently attract the prisoners' attention to a human figure that is moving in this space. As a result, this glowing effect additionally causes the prisoners to constantly be aware of the surveillance applied from the center. Thus, according to Božovič, the prisoners are aware that there is a mysterious, unknown silhouette of a person at the center of the panopticon who at any moment can be watching any prisoner. Therefore, the prisoner's are provoked to act accordingly, as if they were always an element of the "all seeing gaze" of the inspector (Bentham: 1791b: 101).

Relevant to the use of light, Bentham also developed acoustical instruments to complete the functionality of the panopticon. Bentham intended to strengthen the inspector's gaze with the presence of his voice. The inspector would be able to make the prisoners hear his voice by means of "conversation tubes" from his position at the central watch-tower (Bentham: 1791b: 36 - 37). Through this device, the inspector's orders would be received by the prisoner clearly and the inspector would be able to hear the prisoners talk and to observe their movements. Thus, with these acoustical instruments the inspector would warn the prisoners for their unapproved movements. Moreover, the prisoner without knowing to whom the inspector was talking to would think that it was himself who was being warned at that moment. Božovič adds that with these "conversation tubes" the prisoner would hear what the inspector was saying without knowing actually to whom the inspector was talking to, and consequently, all the prisoners would think that the omniscient gaze was watching them; and that the omnipotent voice was talking personally to them (Božovič: 1995: 12).

Božovič claims that the play of light and sound, creates an effect of the gaze and voice of an omniscient presence. Additionally, the lantern composes an effect of "an utterly dark spot" in the tower, which produces an omnipresent power, similar to that of God (Božovič: 1995: 15 – 18). According to Bentham's description of this inspection house, the suffix "icon" present in the word "panopticon" explains the symbol of power in this space. In this consideration, "icon" denotes the symbol of the central gaze. The "icon" which is present in the panopticon is actually a representation of the entity which provides the act of surveillance. In other words, it is a representation of the institution, which controls this space. This dark spot in the tower is an "icon" similar to that of the "icon" of the omniscient presence itself: "the icon of God". Although, the authority of the disciplinary space is actually not present, it represents itself and achieves the exercise of control through the central tower. Thus, Bentham named his design panop*ticon* with this dual meaning of the term "icon"

both as a representation of the institution and the omniscient presence. At this point the discussion on the influence of the Orthodox Church on the panopticon should be reminded.

2.6 The Panopticon as an Artificial Body

The panopticon is a living entity for Bentham: "an artificial body" (Bentham: 1791b: 108). Božovič claims that the inspector's lodge at the center is the life giving heart, and the acoustical and visual features and instruments of the architecture are the extremities (Božovič: 1995: 19). Bentham affirms that this body functions with "clockwork regularity," since, "action scarcely follows thought quicker than execution might here be made to follow command" (Bentham: 1791b: 111).

> Further, it seems that the inspector is more closely tied to this artificial body than he is to his own body. While on the one hand his own body is paralyzed (the inspector does not move and surveillance is carried out from a single point, so that he is even more confined in his lantern than are the inmates in their cells), on the other hand, with the help of the gaze produced by the lantern and the voice produced by the conversation tubes (representing the arteries and nerves of the artificial body), he is in complete command of the artificial body. (Božovič: 1995: 19 – 20)

Therefore, Božovič concludes by saying that all of these effects constitute a non-entity of God. However, this non-entity does not actually belong to God, but to the institutional power (Božovič: 1995: 19 – 20). This institutional exercise of power has replaced the omnipresence of God. The suffix "icon" in the word panop*ticon* is no longer a representation of the power of God, but of the power exercised by the institutional authority.

However, Božovič additionally states that the inspector at the center of the panopticon is in a significant situation. The subject of the "all seeing gaze" is not visible similar to the invisibility of God. Thus, there is an "icon" present at the center of the panopticon, of a power other than of the inspector; a power that belongs to institutional authority. Therefore, the inspector is confined in a body that actually does not belong to himself. Lastly, the panopticon embodies a "presence of a non-presence", which is the principle of its formulation. The central "icon" constitutes the presence of institutional power through the invisibility of the inspector (Božovič: 1995: 19 – 20).

2.7 The Flexibility of the Panopticon

Bentham's consideration of the panopticon as a flexible scheme should be underlined. Bentham designed the panopticon as an architectural scheme, which would be applicable to the use of any institution, where surveillance and control is of consideration. Within this spectrum, the panopticon, for Bentham, is an "architectural diagram" where any kind of rehabilitative activity of any authority can take place. Bentham claims that panoptic space can be perceived as a space of any kind of constitutive structure; this space can be a school where students study in the cells and the educative

authority always keeps an eye on them from the center; or this space can be conceived as a factory where workers perform their work with response to managerial authority (Bentham: 1791b: 80 - 95).

Bentham also states that the panopticon is flexible in capacity. According to his description of this inspection house, one story of the inspection lodge is appropriate for the inspection of two stories of cells, and that this can be taken as a functional unit for construction. Bentham states that for confining 96 persons, two stories of cells and one storey of the inspection lodge; for 192 persons, four stories of cells and two stories of the inspection lodge; for 228 persons, six stories of cells and three stories of the inspection lodge would be appropriate. This combination can be extended to the number of persons that are intended to be expected (Bentham: 1791b: 40 - 41).

From all these, one conceives that Bentham proposes a scheme which is not only flexible but also definitive. As stated by Dreyfus, "(the panopticon) is, above all, flexible" (Dreyfus: 1982: 188). The scheme is definitive since the panoptic characteristic of this building is inherent in the plan, and the scheme is flexible since it can be adapted to different institutional functions and to different capacities.

2.8 Bentham's Panopticon in the Twentieth Century

Although the panopticon was not successfully constructed as it was designed by Bentham, some examples can be depicted to visualize the way Bentham's panopticon has been primarily conceived in the Twentieth Century. Bentham's principles have become a source of inspiration for many institutional buildings and for the principles of town planning of the Nineteenth and Twentieth Centuries. One example of the use of the model of the panopticon in the Twentieth Century is the Stateville Penitentiary (fig. 2.12 and fig. 2.13) at Joliet near Chicago. Semple explains that the construction of this prison began in 1916, and was a fascinating example of "a perfect penological architecture." However, according to Semple's further statements, soon it was understood that the principles of Bentham had been misunderstood, since for the prisoners, the inspector in the central lodge was totally visible (Semple: 1993: 313). Nevertheless, other examples that have successfully interpreted the panopticon model exist. Moreover, these examples are not just complete replicas of Bentham's design, but are adaptations and models that have been extended for specific use. Sack claims that these interpretations of the panopticon differ in many ways; they have formal differences, some have additional wings, or change in function or detail (fig. 2.14), (Sack: 1986: 188 – 192).

Additionally, the social historian Charles K. Ogden explains that Bentham's panopticon has been taken as a model for some prison architecture of today. The panoptic architecture of an existing example in Cuba (fig. 2.15) has been decided on after a survey was completed by experts. Thus, according to the experts' institutional expectations of punishment, they have arrived at the conclusion that the panopticon could be the solution for their architectural problems. As it is seen in the figure, the panopticon has been multiplied to form a cluster of adjacent panoptic spaces to increase the capacity of imprisonment and confinement (Ogden: 1932: 114).

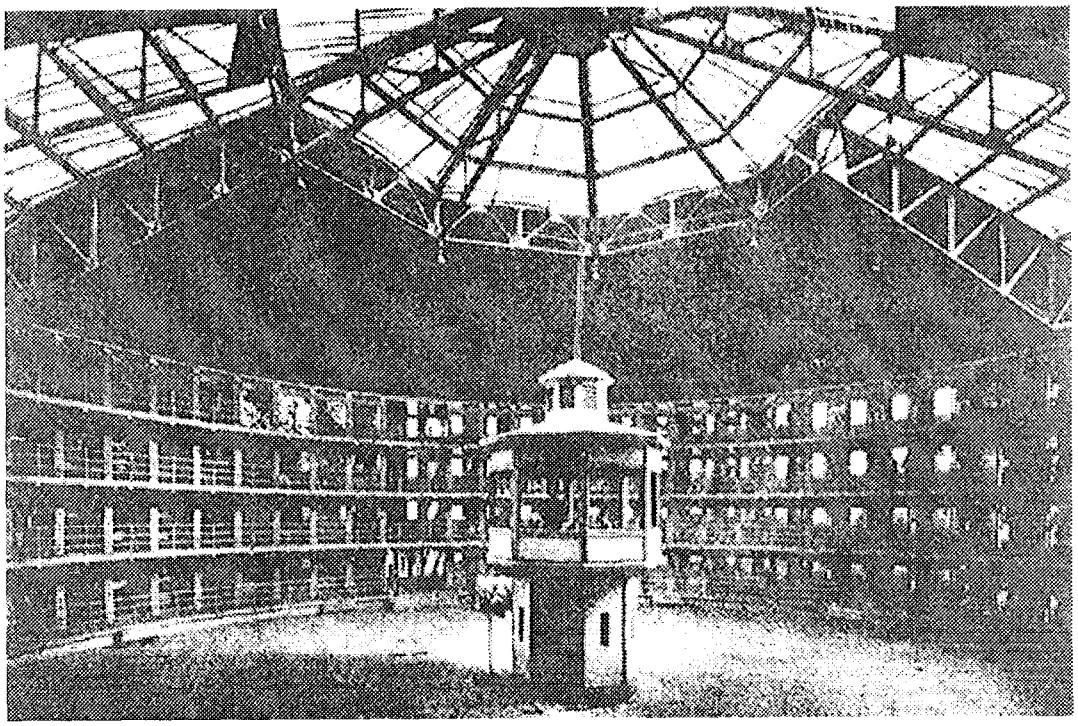


Fig. 2.12 Interior view of Bentham's panopticon as interpreted from the Stateville Penitentiary at Joliet, Illinois near Chicago.
Source: Robert D. Sack, Human Territoriality: Its Theory and History. Cambridge: Cambridge University Press, 1986: 191.

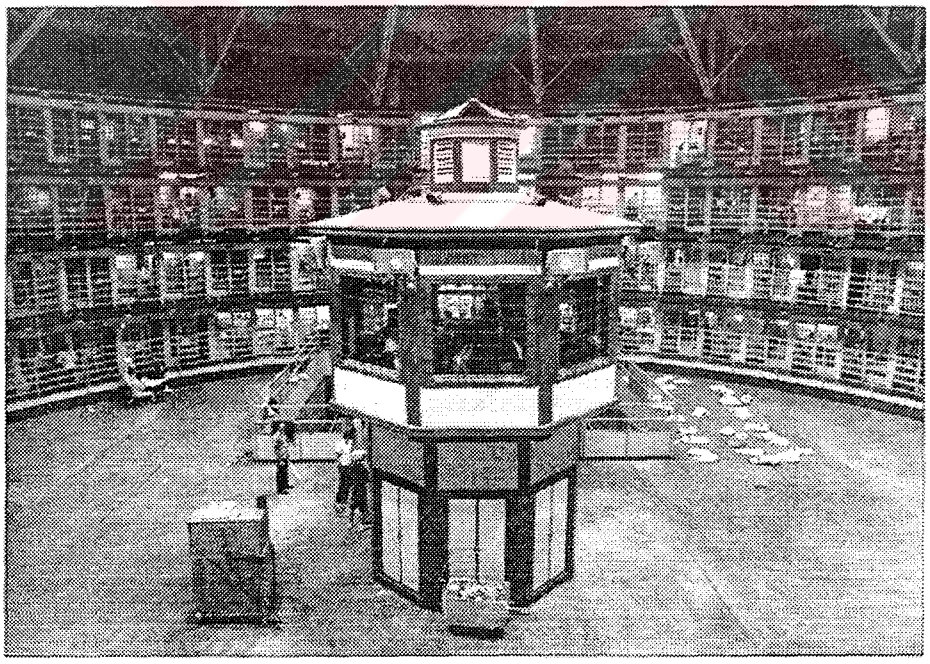


Fig. 2.13 An interior view from the F House at Stateville Penitentiary at Joliet, Illinois near Chicago.
Source: Norvall Morris. "The Contemporary Prison: 1965 – Present", The Oxford History of the Prison: The Practice of Punishment in Western Society. Norvall Morris and David J. Rothman (ed.s). New York, Oxford: Oxford University Press, 1995: 229.

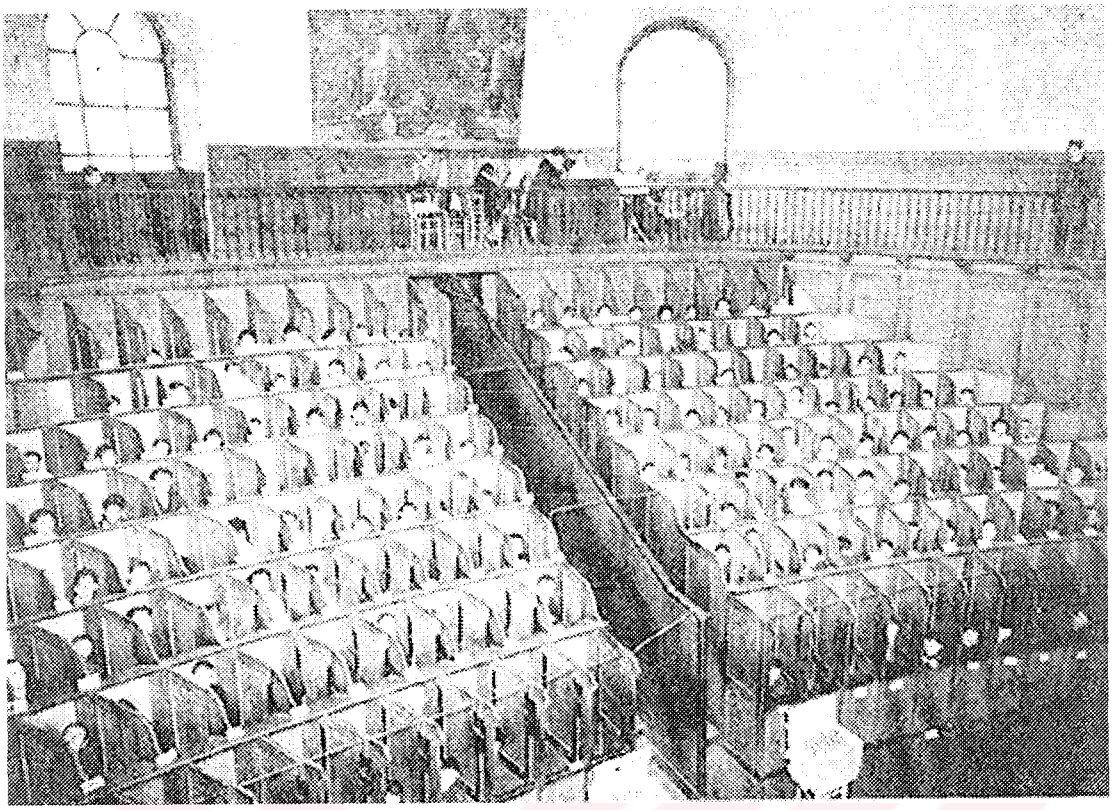


Fig. 2.14 Panopticon seating for prisoners at Fresnes, France.
Source: Robert D. Sack, Human Territoriality: Its Theory and History. Cambridge: Cambridge University Press, 1986: 190.

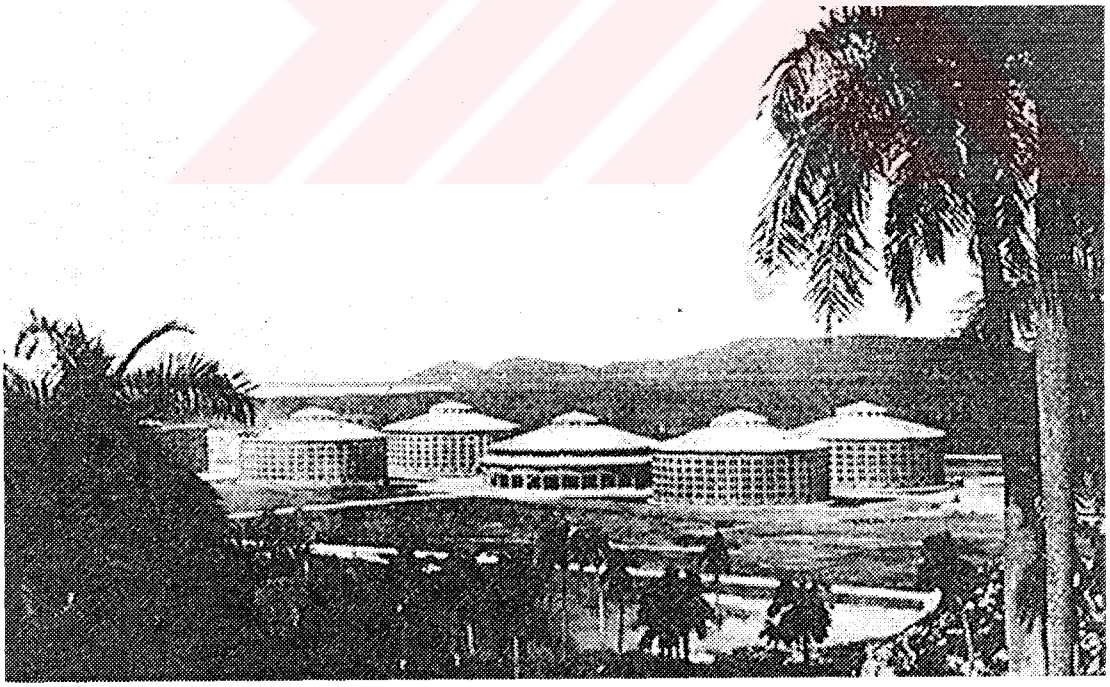


Fig. 2.15 A model of the panopticon built in 1932 on the Isla da Pinos in Cuba.
Source: Charles K. Ogden. (1932), Jeremy Bentham. Bristol: Thoemmes Press, 1993: 115.

Although the panopticon has rarely been applied for the enclosure of certain institutional spaces since the Eighteenth Century, an architectural and social discourse have continuously developed around Bentham's principles and his unique solution for disciplinary space. Through another transformational process of thought, the understanding of disciplinary space, its architectural solutions, and especially the way panoptic space is conceived have changed.

This transformation constituted the emergence of the notion of a rational society. Bentham's ideas and actions also provided the initial stimulatives of the procedure of rational thought. Although Bentham's ideas of penology seemed in favor of the well-being of man in the period of Enlightenment in the Eighteenth Century, in the contemporary situation this may not seem so, since the standards of social life have changed. Additionally, this change in the social standards of life is a result of the transformation experienced from the beginning of the period of Industrialization, until the Twentieth Century. Throughout his studies on the act of reasoning had drawn Bentham to the ideas of turning a man into an object, who is continuously subjected to an "all seeing gaze." Thus, the presence of this dark spot was the source of the prisoner's fear of punishment.

> All this in the name of rational society and even philanthropy? However, we may forget that, at this date, the convict was a novelty, that, until this date, torture and capital punishment had prevailed, and that what we see here is an early attempt to deal with a problem conscientiously. (Rowe: 1994: 79)

This absence of the inspector and the presence of an unknown dark spot, as an ultimate condition, cannot be applicable to rational thought today. Thus, today, creating an environment that threatens the individual, such as in the panopticon, is not an acceptable method of providing rehabilitation, and of introducing man with the "will of goodness".

Another aspect of the panopticon, which is assumed unreasonable today, is the position of the supervisor. It is not the inspector who is inspecting, but an imaginary "icon" of power, and it is clear that this building functions in the absence of the guard and not in his presence. In his studies on the panopticon, Foucault confirmed this space functions without the inspector. Surveillance, in the panopticon, is supported more by the absence of the inspector and the overall architectural form, which constitutes this absence. Therefore, as Foucault states, "the major effect of the Panopticon," as designed by Bentham, was "to induce in the inmate a state of conscious and permanent visibility that assures the automatic functioning of power" (Foucault: 1975: 201).

> Thus, the Panopticon can be considered an 'inhuman' technology; not in the sense that it is brutal or unfeeling, but in the sense that the 'human' capacities of the supervisor are almost irrelevant to its operation. Developing Foucault's account of the Panopticon it is often argued that the visualization of extended areas of space has increasingly depended on the use of inhuman methods. (Barry: 1996: 43)

Personal abilities and even the identity of the inspector are neglected in the configuration of the panopticon. As a workspace, the panopticon, due to its architectural scheme, provides an environment where the inspector has no chance of identifying himself. The inspector's image in the prisoner's eye is nothing but a shadow, which gives fear. Moreover, this shadow is not an "icon" of the inspector, but of the exercise of institutional power. Therefore, for the inspector as well as for the

prisoner, the architectural scheme of the panopticon actually provides an unhumanly workspace, compared to the standards of contemporary disciplinary space.

However, Jeremy Bentham's invention of panoptic space in the late Eighteenth Century, was seen as a humane solution the problem of unhumanly punishment. Punishment without torture was Bentham's intention and his success. Dreyfus claims that the solution to this problem was searched for in such a way that, this was a step performed through the act of reasoning. Therefore, "the 'normalization of the power of normalization' advanced" (Dreyfus: 1982: 194).

> Around 1800, the celebration of death was a very big theme indeed; while, as for deprivation, both the Benthamite and the Piranesian formulae for the jail – as a mechanical instrument or a symbolic construct, as a theatre for reform or a place of terror – seem to have been a topic which divided the late-eighteenth- and the early-nineteenth-century mind, perhaps with the sublime Piranesian jail in town and the more matter-of-fact Benthamite job more likely to be found in suburban situations. (Rowe: 1994: 115)

Colin Rowe, who is an architectural historian, explains that Bentham's achievements composed a formula for the problem of the jail which in its turn indicated a break from the Eighteenth Century mode of thought (Rowe: 1994: 115). Although Bentham's solution for punishment is accepted as a success for its time, it was not the solution of the problem of the prison in itself that indicated this break of thought from the previous periods; but it was the method and the act of reasoning which brought forward the solutions; and composed the break from Eighteenth Century system of thought.

> What is to be understood by the disciplining of societies in Europe since the eighteenth century is not, of course, that the individuals who are part of them become more and more obedient, nor that they set about assembling in barracks, schools or prisons; rather that an increasingly better invigilated process of adjustment has been sought after -more and more rational and economic- between productive activities, resources of communication, and the play of power relations. (Foucault: 1982: 219)

Thus, Bentham's panopticon is evaluated as a significant model which has both been formulated by social transformation of its period and has also provided an influential image for some features of further transformation in the modern society. As a result of this inter-relatedness, this study is concentrated on the spatial attribute of the panopticon which has affected not only the so called disciplinary practice but also correspondingly the architectural aspects of this disciplinary space.

Therefore, Rem Koolhaas's "re-vision" project of the Arnhem Koepel Prison, in his words, is taken as a reflection of its own archaeology; the archaeology of the panopticon reflected upon itself. This reflection is of the panopticon's own metaphorical presence as a disciplinary space in the mirror of society. Instead of accepting this prison as the ground of change for the society, it should be understood as a building transformed by its own metaphorical reflection mirrored by the society. To investigate the process of the modernization of the society by using panopticon as an end product, it would be appropriate to see the transformation in the exercise of power which is the main factor of determining the principles of disciplinary space. This can be possible by investigating the inherent

properties of the Arnhem Koepel "re-vision" project, since it is an outcome and also a stimulator of this social transformation.

2.9 The Subject - Object Relationship in the Panopticon

The panopticon as an architectural scheme, primarily coordinates the workspace where the inspector and the inspected coexist. According to this function, the occupants of the cells and the inspector are commissioned with specific roles to perform in the special social happenings. The inspector carries the role of signifying the omnipotence of the institution he is representing. The inspector in this situation is the "subject" who has the power of gaze over the "object". Consequently, this gaze is a representation of a form of the relationship between the object and subject in the industrial workspace of the late Eighteenth Century.

Bentham consciously chose the name *Panopticon* for this building. The meaning of the word panopticon has been explained previously in this study as an "image that sees all". Relevantly, one conceives that this explanation of the word panopticon correlates to the event that is taking place between the object and subject. With a further investigation, it is seen that Bentham intentionally used the combination of the words "Pan, Optic, and Icon" to explain that the panopticon is a building that is constituted of an "icon" which is "all seeing" (pan: all, optic: sense of sight). Due to the previously explained context of the panopticon, a question related to the presence of the icon can be raised; "what is the relation of the panoptic icon to architecture?".

NOTES

[1] Leonardo Benevelo states that as a result of the Enlightenment and the Industrial revolution of the Eighteenth Century, a general attempt to reform social conditions appeared. The intended reformations were especially in the fields of politics, industry, and relevantly social life. Benevelo additionally states that Jeremy Bentham's Panopticon constituted an example of such an effort of development (Benevelo: 1 – 35). For a further evaluation see Chapter IV, section 4.1.

[2] According to Božovič, Bentham initially thought of this project as an inspection house in its general terms. Later he gave this architectural design the name *The Panopticon* and collected his studies under the title *The Panopticon or the Inspection House.* The study titled *The Panopticon, or The Inspection House* was the most famous among Jeremy Bentham's works. As it is explained in the discussion of this study, this work of Bentham is the compilation of his theories and ideals on the application of punishment through an ideal disciplinary space (Božovič: 1 -28).

[3] Stephen explains that the inefficient use of space and the utilization of central inspection were the reasons that the government paid most attention to when rejecting the project. The Panopticon was not accepted as functional and according to the government the feature of central inspection would not result with desired effects (Stephen: 193 – 205; Bentham: 1843).

[4] (Cited in Werret, p.7, from Richard Sennet, The Conscious of the Eye: The Design and Social Life of Cities, New York: Alfred A. Knopf, 1990: 7). According to Werret, "Sennet argues that this height (present in the western church) translated into architecture the Augustinian notion of finding God through vision, of 'seeking the light'" (Werret: 7).

[5] (Cited in Werret, p.6, from Timothy Ware, The Orthodox Church, London: Penguin, 1963: 269.)

[6] According to the lexical meaning "pan" means "to rotate (a camera) horizontally, as to get a panoramic effect or follow a moving object": "optic" means "of the eye or sense of sight"; and one meaning of "icon" is "an image; figure; representation; specifically, any of various stylized figures, as displayed on a microcomputer screen, representing available functions or resources"; and another meaning of the word "icon" is according to the Eastern Orthodox Church, "an image or picture of Jesus, Mary, a saint, etc., venerated as sacred". (Webster's New World College Dictionary on Power CD, Version 2.5, Zane Publishing, 1996).

CHAPTER III

OBJECT, SUBJECT AND SPACE: DIFFERENT APPROACHES

Referring to institutional practices in his writings, Michel Foucault has contributed to the field of historiography. Many of his texts have been used to offer different perspectives for understanding issues related to social history. One of these texts is "Panopticism," in which Foucault explains the context of a panopticon built in Vincennes. Through this example, Foucault underlines how authorities dealt with social problems, and how the panopticon became a solution as a unique architectural instrument. This instrument was actually a machine for "seeing" and thus, for exercising power.

In another essay, "Las Meninas," Foucault, carries the issue of "seeing" to a different level, where he analyzes the object – subject – space relationship. Foucault does the analysis of Velázquez's portrait through its significant visual construction, which resembles the one in the panopticon. The visual construction in the panopticon can be compared to some other representation techniques such as: perspective, panorama and diorama. The comparison of these constructions with the panopticon, display some significant features of the panoptic architectural scheme.

The visual construction in Bentham's panopticon was changed in the Arnhem Koepel "re-vision" project. OMA has replaced the central watch-room with specific spaces for social activities that are situated along a sunken street. This renovation implies the necessity of a solution of the object – subject relation. The "re-vision" project of the Arnhem Koepel can be understood in parallel to recent developments in visual technology, where the object – subject – space relationship is continuously re-organized.

3.1 The Panopticon and the Subject – Space Relationship

In one of his works, *Discipline and Punish,* first published in 1975, Foucault investigates the prison as an example of what he calls "an institutionally discursive practice". In the chapter titled *"Panopticism"*, he discusses Jeremy Bentham's architectural project of the panopticon (Foucault: 1975: 195 – 228). He states that the panopticon, as an architectural scheme determines the power relationship between the inspector and the inspected. Moreover, Foucault reaches to a conclusion

with a generalization that the architectural scheme of the panopticon can form a metaphor for the diagram of power relations of an institution where control and surveillance are of concern.

Furthermore, Foucault explains that Bentham's project, was "a perfect disciplinary institution". This was an example to show how one may "unlock the disciplines and get them to function in a diffused, multiple, polyvalent way throughout the whole social body" (Foucault: 1975: 208). Indeed, Bentham dreamt of transforming the disciplines which the classical age had placed into enclosed spaces, into "a network of mechanisms that would be everywhere and always alert, running through society without interruption in space or time" (Foucault: 1975: 209). With this generalization, the panoptic arrangement provided a formula for this selected "network of mechanisms" (Foucault: 1975: 209). Thus, the exercise of power in the disciplinary society would not be bound to its disciplinary space but would be evaluated through the inter-connected relationships and the way power is exercised in society.[1]

> To approach the theme of power by an analysis of "how" is therefore to introduce several critical shifts in relation to the supposition of a fundamental power. It is to give oneself as the object of analysis power relations and not power itself -power relations which are distinct from objective abilities as well as from relations of communication. This is as much as saying that power relations can be grasped in the diversity of their logical sequence, their abilities, and their inter-relationships. (Foucault: 1982: 219)

In his book, Foucault claims that Bentham's Panopticon is an architectural figure of a composition from history and of a societal formation. For Foucault, the suggested composition appeared during a period when a contagious disease spread among the inhabitants of a settlement. Plague threatened people in the town Vincennes. Consequently, quarantine was necessary to isolate this disease in order to prevent it from spreading.[2] He additionally notes that "this regulation is broadly similar to a whole series of others that date from the same period and earlier" (Foucault: 1975: 195, 316n).

According to Foucault, Bentham's project appears here as a solution to the confinement from the healthy persons of the contaminated "abnormal" person, who has been affected by the plague. The definition of the word "abnormal" according to the dictionary is "deviating from the normal or average; especially markedly and disturbingly irregular". The etymological meaning of the word "normal", which is basically the antonym of "abnormal", comes from "norm". Furthermore, the word "norm" comes from Greek, and means a "carpenter's square", or literally "one that knows" or rather, "one who has the ability to contain and to use knowledge". It is interesting to see the relationship between the meaning of the word "abnormal" and the act of knowing. In this consideration, it is perceived that what is accepted by social norms is knowledge or an individual's act of mastering knowledge.[3] Moreover, what is rejected by the society is an individual's ignorance of the act of expressing this knowledge. The significance of this relationship between abnormality and power is intensified with the system of the panopticon. Foucault expresses that, "[t]he Panopticon is a privileged space for experiments on men, and for analyzing with complete certainty the transformations that may be obtained from them" (Foucault: 1975: 204).

According to Foucault, the transformations which are obtained, are simply for the benefit of the society. These benefits are provided by increasing the quality of the individual's work power and by stopping inadequate habits such as criminality and laziness. Foucault asserts that the solution of keeping the society away from these inadequate habits was to confine "abnormal" people in the panopticon, where these people would transform into what the society would accept (Foucault: 1975: 195 – 228; Sack: 1986: 169 – 215).

Foucault further claims that in the case of the panopticon in Vincennes, abnormality is derived from the considered potential of social work as suggested. A healthy society is preferred to an ill one. In brief, healthy people work more efficiently than ill people do. From this point of view, it can be seen that the authority, whether it be the government or any local institution, would thereby prefer a healthy society for productivity. Consequently, the range of abnormality in this sense can be extended from the phenomenon of an unhealthy society to laziness, criminality, and any situation, which keeps the individual from work. Loosing the ability to work may be the most disastrous situation for the productivity of a society. In Vincennes, the solution to the problem of the disease was the separation of the abnormal or the ill from the normal or healthy, by having them positioned under "surveillance" in the panopticon (Foucault: 1975: 195 – 228).

The word "surveillance" which states the primary function of the panopticon, has a significance. Surveillance is an implication of power that an institutional authority wishes to realize in regulating the abnormality. Furthermore, surveillance finds its space in an architectural layout.

Foucault's intention in the investigation of the panopticon is to analyze the controlling mechanism that Bentham transforms, through an architectural scheme. Thus, the supervisor has total "visual power" over the building and over the people who are occupying the peripheral cells. Because the supervisor has control over this panoptic space, he is the subject of the experience of the exercise of power. Therefore, the inspector, is the subject who activates the interaction in this space. This convention is the method and the intention of the utilization of vision as an instrument of power in the construction of the "disciplinary space" in the panopticon.

Dreyfus expresses that the panopticon is also a laboratory for the transformation of the prisoners into an object to be observed. While experiments are carried out easily in each cell, these experiments can be observed from the central tower. Additionally, the panoptic space can be used as a laboratory in any institution, where "the surveillant could observe with great clarity the encoded and differentiated grid which lay before his gaze." (Dreyfus: 1982: 189)

> The supervision of normality was firmly encased in a medicine or psychiatry that provided it with a sort of 'scientificity'; it was supported by a judicial apparatus which, directly or indirectly, gave it legal justification. (Foucault: 1975: 296)

The panopticon was actually a space where the body of the individual was accepted as an "object" to be penetrated into. This was one of the reasons that constituted the inherent properties of the panopticon and of the notion of the "all seeing gaze."

Foucault studied the fields in which there was a specific subject-object relationship. This relationship, as Foucault observed, was found in the course of the establishment of certain institutions

and sciences. In this course, a subject learned how to make an object out of another man or even of himself. For this subject-object relationship to evolve, the "gaze" was taken as a central technique of observation (Foucault: 1975: 173 – 177). Foucault observed these practices, and especially concentrated on the way these disciplines have realized this "gaze" as a method of exercising power in their specific institutional spaces.

For Foucault, one of the most important developments that have been triggered by the panoptic "gaze" can be noted as the evolution of the "science of the individual." With these developments, the investigation of the human body was accomplished as a scientific act where the individual constituted the object of experimentation. However, before these developments, the rehabilitation of the individual was exercised as a ritual, where the focus was upon exterior forces such as spirits and myth (Foucault: 1975: 24, 167, 191, 224). Together with this individualization of science, especially in medicine, the gaze shifted from analytical data to the body itself and especially to the corpse. Thus, "autopsy" was introduced as a new practice in medicine and opened new paths to other developments, if not all (Foucault: 1963: xii - xiii). As a result, the "gaze" has gained new media to "see" the body of the individual, such as in the method of autopsy.

According to the art historian Nicholas Mirzoeff, within the panopticon the body is similarly seen as an "object of inspection" where the inspector observes the expected procedures in the prisoners rehabilitation. Mirzoeff states that Foucault studied the relationship between power and knowledge in the Eighteenth Century disciplinary spaces, and showed that "the abolition of public torture and execution was motivated less by increased humanity than by the aspirations of legislators and jurists to produce a more effective form of punishment" (Mirzoeff: 1995: 9 – 10). According to Foucault, the institutional disciplinary spaces sought for methods of turning the individual into a "docile body" (Foucault: 1975: 135 – 169; Mirzoeff: 1995: 9 – 10).

> We all know about the great upheavals, the institutional changes which constitute a change of political regime, the way in which the delegation of power right to the top of the state system is modified. But in thinking of the mechanisms of power, I am thinking rather of its capillary form of existence, the point where power reaches into the very grain of individuals, touches their bodies and inserts itself into their actions and attitudes, their discourses, learning processes and everyday lives. The Eighteenth Century invented, so to speak, a synaptic regime of power, a regime of its exercise *within* the social body, rather than *from above* it. (Foucault: 1980a: 39)

Mirzoeff adds that, in his studies Foucault, describes the emergence of a new notion of the subject, which evolved under disciplinary techniques. The history of power relations is reflected through this political technology of the body, which draws attention to the "objectification of the subject" (Mirzoeff: 1995: 9 – 10).

> Although no true panopticon was ever built, Foucault interpreted the panopticon as the model for that dense layer of discourse, which mediates and links the poles of subject and body. Later he was to call this force 'biopower', as a testament to the centrality of the body in modern power networks. His work was both profoundly insightful and meticulously researched, and has caused a fundamental reconsideration of the evolution of modern society, which has led to the renewed scholarly interest in the history of the body. (Mirzoeff: 1995: 9 – 10)

Mirzoeff asserts that this "biopower," which is a form of power concentrated on the body, is also found in the panopticon, and that it indicates the objective of the exercise of power, generally in the late Eighteenth Century. Thus, the panopticon constitutes the space in which this relation of power is realized between subject and object.

The space, which is defined between the object and the subject, carries much importance related to the inspector, who is the subject.[4] This disciplinary space in the panopticon is defined by an institutional "territory" considering the workspace explained in the introduction to the panopticon (Sack: 1986: 169 – 215).

> The key to management and organization is 'the centrality of the inspector's situation.' He possesses the most powerful device for supervision: 'seeing without being seen.' Centrality, the transparency of the cell, and the invisibility of the inspector intensify the effects of supervision by giving to the inspector 'an apparent omnipresence.' Territorial segmentation adds another economy to supervision. It permits one or a few inspectors to supervise many inmates and allows the under – supervisors to be themselves efficiently supervised. (Sack: 1986: 186)

The space identified here as "territory" can be interpreted as the work place of the subject who is using the panoptic machine. Robert Sack, who is a geographer, asserts that this "territory" of the subject is an "impersonal space" since it is a place of work. The "impersonal" significance of the workspace is a result of the institutional structure which imposes on the subject a certain institutional role (Sack: 1986: 186). This subject relevantly "identifies" himself with the role proposed by the organizational structure. This role, imposed on the subject, can be identified as the subjects signifier, his "icon", which frames his space of work. In this manner, the inspection tower constitutes the "icon" of the inspector's workspace. Therefore, the inspector, who is actually not seen by the prisoners, is represented by the tower as an "icon". However, this tower as a signifier is actually the "icon" of the institutional authority. As Foucault explains, it does not matter who exercises power in this space, since the inspector "inscribes in himself the power relation" (Foucault: 1975: 202 - 203). As it is conceived, the basic principle of the panoptic space, is the absence of the inspector as subject and the presence of the "icon" of power. Thus, these characteristics of impersonal space proposed by Bentham, are provided by a conscious territorial organization for industrial production.

> The Panopticon embodies principles of territorial organization that are eminently suited to the use of space by industrial capitalism. It presents a comprehensive architectural design for instituting the modern territorial effects of any emptiable, fillable space, and of facilitating impersonal / bureaucratic relationships (Sack: 1986: 187).

Within this sense "territory" is the medium offered by the panopticon for the subject to mediate, interact with the object. This mediation is actually a formulation of the set of power relations specific to that space. The identification of the type of the exercise of power specific to that space carries much importance.

> The empirical analysis of certain disciplines as they have been historically constituted presents for this very reason a certain interest. This is so because the disciplines show, first, according to artificially clear and decanted systems, the manner in which systems of objective finality and systems of

> communication and power can be welded together. They also display different models of articulation, sometimes giving preeminence to power relations and obedience (as in those disciplines of a monastic or penitential type), sometimes to finalize activities (as in the disciplines of workshops or hospitals), sometimes relationships of communication (as in the disciplines of apprenticeship), sometimes also to a saturation to the three types of relationship (as perhaps in military discipline, where a plethora of signs indicates, to the point of redundancy, tightly knit power relations calculated with care to produce a certain number of technical effects). (Foucault: 1982: 219)

Dreyfus explains that the panopticon as a house of power, is the result of a compilation of a specific kind of force relationships, especially between the subject and object. These relationships are formulated as a matrix of power, seen in the operations of discipline and surveillance. This matrix of power constitutes the underlying intentions in the prison's architecture and in its territory of the subject(s) of this space (Dreyfus: 1982: 186).

> Power is a general matrix of force relations at a given time, in a given society. In the prison, both the guardians and the prisoners are located within the same specific operations of discipline and surveillance, within the concrete restrictions of the prison's architecture. (Dreyfus: 1982: 186)

The "matrix of force relations", thus cannot be reduced to one disciplinary space. This "matrix of force relations" is a system, which formulates this space. The inter-connectedness of many aspects of society reflect upon disciplinary schemes through institutions and interactions of power that formulate the functioning of this territorial work space.

> The exercise of power in itself is not violence; nor is it a consent which, is implicitly renewable. It is a total structure of actions brought to bear upon possible actions; it incites, it induces, it seduces, it makes easier or difficult; in the extreme it constrains or forbids absolutely; it is nevertheless always a way of acting upon an acting subject or acting subjects by virtue of their acting or being capable of action. A set of actions upon other actions. (Foucault: 1982: 220)

Thus, disciplinary space, with its compositional elements, constitutes an all together functioning whole, where nothing should escape the disciplinary system that is born out of that space. As stated by Foucault, in this disciplinary space of the panopticon everything works accordingly in territorial separations, fit for nothing to disturb the general scheme of power relations. Foucault explains that "[i]n discipline, the elements are interchangeable, since each is defined by the space it occupies in a series, and by the gaps that separates it from the others", (Foucault: 1975: 145).

> By the term 'Panoptism', I have in mind an ensemble of mechanisms brought into play in all the clusters of procedures used by power. Panoptism was a technological invention in the order of power, comparable with the steam engine in the order of production. This invention had the peculiarity of being utilized first of all on a local level, in schools, barracks and hospitals. This was where the experiment of integral surveillance was carried out. People learned how to establish dossiers, systems of marking and classifying, the integrated accountancy of individual records. (Foucault: 1980b: 71)

Foucault explains that the Eighteenth Century disciplinary space has been constituted to achieve the "classification" of individuals. The intention in this procedure was to amend society by providing individual rehabilitation in the "classification system" of such disciplinary spaces. People

were classified according to their abnormalities, are placed in the disciplinary space or in their own territories, and then are treated respectively. Disciplinary space provides the means of "classifying" and, as a result, the treatment of the abnormal people in the society (Foucault: 1975: 148, 203 – 204).

> Gradually, an administrative and political space was articulated upon a thera-peutic space; it tended to individualize bodies diseases, symptoms, lives and deaths; it constituted a real table of juxtaposed and carefully distinct singularities. Out of discipline, a medically useful space was born. (Foucault: 1975: 144)

In this sphere of the disciplinary space, treatment of the "abnormal" individual is a part of the general scheme of the institution, in which space provides the observation of the rehabilitation of the individual. For this, each individual is observed through a system of institutional hierarchy. As expressed by Dreyfus, hierarchy lies between the inspector and the abnormal individual.

> Hierarchical observation is a key element in the examination. The goal is to make surveillance an integral part of production and control. The act of looking over and being looked over will be a central means by which individuals are linked together in a disciplinary space. The control of bodies depends on an optics of power (Dreyfus: 1982: 157).

Within the whole system of disciplinary technology, technology that provides discipline, the total organization of space is the main coordinating factor under visibility. Dreyfus further states that "from an early period in industrial history, power and efficiency were joined in a system; space and production were linked through an optics of surveillance", (Dreyfus: 1982: 157). "Disciplinary space" combines institutional power and the efficiency of production by means of the realization of surveillance over the individual inhabitants of that space.

> The Panopticon effects its control over bodies in part through its efficient organization of space. An important distinction must be made here. This is not so much an architectural model which represents or embodies power, but a means for the operation of power in space. It is the technique for the use of the structure, more than the architecture itself, that allows for an efficient expansion of power. (Dreyfus: 1982: 189 - 190)

As it is indicated in the course of the discussion in this chapter, the organization of the workplace is essential in productivity to define the territory of those who work. To evaluate the power relations in the panopticon, its space should be studied as a territorial organization of the workplace where the individual is, or becomes, a productive element in the society.

> The control of space was an essential constituent of this technology. Discipline proceeds by the organization of individuals of space, and it therefore requires a specific enclosure of space. In the hospital, the school, or the military field, we find a reliance on an orderly grid. Once established, this grid permits the sure distribution of the individuals to be disciplined and supervised; this procedure facilitates the reduction of dangerous or wandering vagabonds to fixed and docile individuals. (Dreyfus: 1982: 154 – 155)

In this total system of disciplinary space in the panopticon, the rehabilitation of the individual is achieved through the space itself, by using space as a unitary element. As explained by Foucault, space is divided into units, so that "each individual has a place and each place has its individual", (Foucault: 1975: 143). Every unit of space assigns a role as a part of the whole system to the inhabiting individual. Moreover, the partitioning of space into equal units, similarly, positions

each individual into a space of equal hierarchical order. Since each unit of space is equal by means of space quality and by means of the character of interaction with the spectator, each individual is equally an object of the inspector's gaze and equally under the same power in the panopticon.

> In disciplinary technology, the internal organization of space depends on the principle of elementary partitioning into regular units. This space is based on the principle of presences and absences. In such a simple coding, each slot in the grid is assigned a value. These slots facilitate the application of techniques of discipline to the body. (Dreyfus: 1982: 154 – 155)

The organization of space in disciplinary technology is achieved in such a way that many objectives are challenged with one configuration of space. Therefore, every aspect of this space should function as a contribution to this disciplinary order. Otherwise, the economy of the space would fail in the achievement of providing a productive individual. The economy of disciplinary space is essential, since any defective element of this space could cause complications that are much more expensive if an inhabitant of the workplace discontinued to be a productive part of the system.

> Individuals are placed, transformed, and observed with an impressive economy of means. For the most efficient and productive operation, it is necessary to define beforehand the nature of the elements to be used; to find individuals who fit the definition proposed; to place them in the ordered space; to parallel the distribution of functions in the structure of space in which a confined area must be ordered; there should be no waste, no gaps, no free margins; nothing should escape. (Dreyfus: 1982: 155)

In the order of the panopticon as a disciplinary space, decisions related to space have been taken for the accomplishment of a number of objectives at the same time. The economy of the productivity of the individuals is supported by the very economy of space. Besides having multiple functions, the elements of disciplinary space assign specific roles to the individual. According to Dreyfus, the disciplinary space in the panopticon, both divides and unites, both equalizes and individualizes. Relatively, the individual is both a subject of production and an object of power in this composite system. Therefore, within this strict organization of space, where there is a composition of functions, every aspect of this space should take part in favor of the total system. Any waste of space or the presence of a non-contributing factor, would negatively cause a serious failure of panoptic space. Since the functionality of this space is the primary aspect of the configuration, it is seen that disciplinary technology lies in the organization of space itself. For Dreyfus "[t]he success of disciplinary space turns therefore on the coding of this "structural" organization", (Dreyfus: 1982: 155).

Therefore, the power relations in the panopticon are a result of the abstract schematization of its architectural diagram and its method of functioning. Through the transparency of the architecture of the panopticon this is clearly seen with no obstruction. Dreyfus states that "[t]he very genius of the Panopticon lies in its combination of abstract schematization and very concrete applications" (Dreyfus: 1982: 188).

The exercise of power, the application of surveillance and the abstract schematization of power relations in the disciplinary space of the panopticon are actually bound to a specific standard, which is produced by "normalizing judgement". For Foucault, without this "normalizing judgement"

the disciplinary system would not work, for it is this that provides the institutional authority the chance to rehabilitate the individual with reason (Foucault: 1975: 177 – 183).

> In order for this disciplinary system to operate, it had to have a standard that unified its operations and further solidified its punishments down to an even finer level of specification. This standard was "normalizing judgement." (Dreyfus: 1982: 157 - 158)

This is actually, where Bentham's theories become relevant. Bentham's theories of legislation and of penology were the very basis of his study on the panopticon. The panopticon, for Bentham, constituted the grounds on which he could realize his theories. As explained by Foucault, "[b]y assessing acts with precision, discipline judges individuals 'in truth'; the penalty that it implements is integrated into the cycle of knowledge of individuals" (Foucault: 1975: 181). Thus, the panopticon is a space where "truth" is sought through the rehabilitation of the individual.

Besides "surveillance", as a form of the exercise of power, the ability to see, in other words "vision" can also be accepted as another tool to obtain power in the panopticon. The reason for this is the inspector's priority of being able to see (see Appendix).

The aspects of the architectural layout which provide "visual power" can be explained in different ways: if the abnormal is located in a cell at the periphery, and if the peripheral and inner walls of the cells have large openings so that light can illuminate the prisoners and reach the tower at the center, then we can talk about a periphery and a center. Moreover, the entrances to these cells, provide visual accesses to these rooms and the center. The keyword introduced for this abstraction is the axial position in a moment of vision. This momentary situation provides the inspector with a view of the resident of a cell. The center, on the other hand, cannot be seen from the periphery because of the darkness intentionally created at the interior space of the tower. Consequently, all of the residents at the periphery are equally visible from the center whereas the center is equally invisible from the periphery (see Appendix). The center, according to this layout, signifies the ultimate power over the periphery, where the access of vision forms the criteria of control.

> Hence the major effect of the Panopticon: to induce in the inmate a state of conscious and permanent visibility that assures the automatic functioning of power. So to arrange things that the surveillance is permanent in its effects, even if it is discontinuous in its action; that the perfection of power should tend to render its actual exercise unnecessary; that this architectural apparatus should be a machine for creating and sustaining a power relation independent of the person who exercises it; in short, that the inmates should be caught up in a power situation of which they are themselves the bearers. (Foucault: 1975: 201)

As understood from Foucault's words, there is no specific function that the panoptic scheme is bound to. With the separation of the panoptic system from its function, the panopticon can be perceived as a diagram. According to John Rajchman this space of power can be interpreted as "diagrammatic", since it is an architectural diagram, which introduces other "possible movements" and which are not "predetermined by an overall program" (Rajchman: 1993: 216 –7). In this sense, the panopticon, taken as an architectural scheme of visual power, is free from the initial diagrammatic plan, in as much as it is open to interpretation for its application for control in every institution and discipline.

3.2 The Relationship Between Object and Subject

The visual scheme, which is inherent in the panopticon, can be examined through an analysis of the object – subject relationship. In order to be able to understand the character of the scheme, it should be thought of as a diagram where the inspector is the subject and the inspected are the objects. Thus, this relationship can be understood through the observation of the positioning of the object and subject.

In this panoptic scheme, the subject is situated at the center of the tower as expressed previously. The central position of the subject and the peripheral positioning of the objects result with what I call "mediation" that occurs between these. This mediation, however, should not be understood as the subject interacting with all objects simultaneously. Mediation takes place between the subject and one object at a specific moment. The inspector can watch the prisoners in the panopticon only one by one, through a momentary act of vision. Therefore, without the invisibility of the inspector, according to Bentham's principles, the inspection of every prisoner from one point is practically impossible in the panopticon. The presence of the inspector, actually, is a visibility reversed. The inspector does not imply power through his presence but through his absence. If the inspector were to be physically visible, the implication of power would not be so effective.

According to Dreyfus, "Bentham's Panopticon captures and manifests this reversal of visibility in its organization of space. The architecture itself is a means for that visibility and the subtle forms of control it entails" (Dreyfus: 1982: 191). Here, it is seen that the main idea behind the panopticon itself, is to be transparent. Every intention of Bentham is illustrated in the panopticon. The panopticon is an honest building since its every aspect reflects of Bentham's theories.

> It carries within itself its own interpretation, a certain transparency. Its function is to increase control. Its very form, its materiality, every aspect down to the smallest detail yields the interpretation of what it does. (Dreyfus: 1982: 191)

This architecture reflects not only Bentham's ideals but also constitutes a metaphor of a societal transformation. Thus, the significance in the panoptic scheme is that its architecture establishes the framework of its function: the objects do not need to be watched, since they cannot see if they are being watched because of the internal configuration in the panoptic space. Furthermore, the scheme itself imposes the belief onto the prisoners that there is a possible subject at the center who is possibly watching. Therefore, the scheme can be seen as a system where the subject has been eliminated. Resultantly the subject has lost its space.

To further understand this moment of vision it would be convenient to observe other schema which provide a comparable mediation between the subject and the object. With the invention of optical instruments in history, the understanding of the mediation between the subject and the object has been changed. These inventions coincide with the Renaissance, conceived as a period in history between the Fourteenth and Sixteenth Centuries. The revival of art and science in this period replaces the tradition of magic with the essence of the universal man or in other words man in the

center of the cosmos. This center of the universe was where man placed himself to understand and have knowledge of the universe.

Accordingly, the Renaissance man developed and used specific instruments such as the telescope. Donald Preziosi, an art historian, expresses that with the invention of the telescope the understanding of the objects being viewed had changed. Preziosi further claims that the telescope, with which astronomers viewed the stars, brought the notion that "the sign was not equal to the thing", and that there was "a new space between the intellect and the world". Additionally, Preziosi states that this drew a contrast with the medieval world (Preziosi: 1989: 56). The telescope was an instrument, which helped depicting reality within itself. The use of the telescope has primary significance in the development of the understanding of vision.

> Signs always fall within the space of the telescope itself. For Galileo, knowledge was always a sign manipulating activity. Thus, the star observed through the instrument is not the same object as the star observed with the unaided eye: Changing the length of the telescope gives us a different instrument and therefore a different object. (Preziosi: 1989: 56)

This statement resembles Foucault's depiction of the panopticon as a machine:

> The Panopticon is a machine for dissociating the see(ing) / being seen dyad: in the peripheric ring , one is totally seen, without ever seeing; in the central tower, one sees everything without ever being seen. (Foucault: 1975: 201 - 201)

"The panopticon as a machine" transforms the relationship between the object and subject in a similar way as the image is manipulated within the telescope. Both form an interface between the object and subject. Both as tools define the limits of vision and of what is to be seen. Through both, there is an intention of altering the frame of vision for a certain benefit, be it the viewing of far objects or the regulation of the abnormal. Accordingly, the use of an instrument indicates the existence of a distance, a space that is constructed in between the subject and object.

> -a practice of manipulating signs (that is, thinking)- that positions the analyst with respect to an object or series of objects, thereby simultaneously defining the nature of proper objects and constructing a proper distance between subject and object. (Preziosi: 1989: 55)

This distance between the subject and object is not a short cut, nor a labyrinth in the telescope. It is rather a distance convenient for the realization of the mediation. Indicated by these words, the telescope is conceived as an instrument, a tool through which reality is changed. The image of the viewed object is transformed as it enters and exits the tool and reaches the eye. Here the tool defines a space, which provides the mediation between the subject and the object. This space forms a frame where the object transmits signs to the subject. Therefore, what is seen is what appears within the limits of the tool. Furthermore, Erwin Panofsky claims that these signs or rather "icons" of what we see together in the framework of our tool constitute a composition of vision signifying what really is there (Panofsky: 1925: 1 – 3). Thus, the panopticon is a visual instrument through which the environment is perceived.

Another construction for depicting the environment is perspective. The Renaissance man developed "perspective" as a method for depicting three-dimensional objects onto two-dimensional

surfaces. The reason for this was to define the visual space, of which the Renaissance man stood in the center.

Leon Battista Alberti is the first known artist to have developed a scientific explanation for the achievement of the representation of naturalistic spaces on canvases (Dubery: 1972: 56). Alberti explains the discursive position of centrality present in Renaissance painting, where there is an analogy of the eye as the single central view point in the perspective (Preziosi: 1989: 57). Preziosi explains that paintings had to be projected onto the canvas by the painter with the imaginary standpoint of the spectator taken into consideration, so that no distortion occurred (Preziosi: 1989: 57). The painter had to visualize the end product in painting before depicting the image on the canvas surface. Perspective, was developed as a method for visualizing the end product of the painting. The perspective method was developed in order to define a mathematical space where a painter could visualize or mathematically solve the problem of transferring the signs received from objects onto the canvas, similar to the manipulation of signs through the telescope.

> In a sense, perspective transforms psycho physiological space into mathematical space. It negates the difference between front and back, between left and right, between bodies and intervening space ("empty" space), so that the sum of all the parts of space and all its contents are absorbed into a single "quantum continuum". (Panofsky: 1925: 31)

What is significant here in Panofsky's words, is the unification of space deprived of its mystical features of the medieval period. Space was therefore understood as a manipulable continuous medium of matter.

Robin Evans, an architectural theorist, asserts that other artists besides Alberti were involved with the perspective method. Piero della Francesco was one of these Renaissance artists who developed a similar perspective technique. Through the development of the perspective technique, artists re-formulated the previously stated continuous space (Evans: 1992: 3). Evans further states that Piero della Francesco developed his method by geometrically abstracting objects. He assumed this method of abstraction again as a tool to identify the space around the painter. According to Piero della Francesco's method of perspective, the spatial relationship between the eye (subject) and picture plane (object) was depicted (Evans: 1992: 5).

> ...perspective is composed of five elements: the eye, the form of the object seen, the distance between the eye and the object, the lines that join the eye to the outline of the object, and finally the surface of the picture. Everything within this system is confined to the space between the eye and the object. (Evans: 1992: 5)

Additionally, in the consideration of Alberti's perspective method, the picture plane was considered as an instrument that resembled a window in the process of painting. As stated by Alberti[5]:

> Painters should only seek to present the form of things seen on this plane as if it were of transparent glass. Thus the visual pyramid could pass through it, placed at a definite distance with definite lights and a definite position of center in space and a definite place in respect to the observer. (Preziosi: 1989: 57)

Both methods by Alberti and Piero della Francesco depicted a manipulable space between the eye and object, where man is standing at the center. According to Liane Lefaivre, Alberti has

studied on modern map making. The results of his studies almost coincide with the studies of contemporary scholars. The significance at this point is the method he uses: he places himself at a specific center and depicts the contours of the map using "course lines" that radiated from the center (fig. 3.1). This method was opposite in nature to the previous methods of rectilinear coordinates (Lefaivre: 1997: 128 – 130).

With the use of this new method of depicting scenes from nature onto canvas, man stands at the center of his universe and nature is laid before him. However, as I state, perspective is far more than a depiction of the visual field onto canvas. Perspective, which is basically a construction of lines on a plane, is actually a re-territorialization of scenes or objects of a scene, which appear momentarily in nature. Thus, perspective provides the painter to produce a subjective reproduction of nature.

Architecture was another field where the Renaissance architect produced his work with similar principles. As it has been asserted by the architectural historian James Ackerman, the architect of the High Renaissance (in the first half of the Sixteenth Century) in Italy, produced his work starting from the center of the project. The design and construction phase of the project was carried together in situ, where the architect could visualize simultaneously the product (Ackerman: 1954: 9). According to Ackerman, "[t]he architect starts drawing in the center and works outwards, and it is not until he has reached a final solution that he begins to consider what the outer face should be" (Ackerman: 1954: 9).

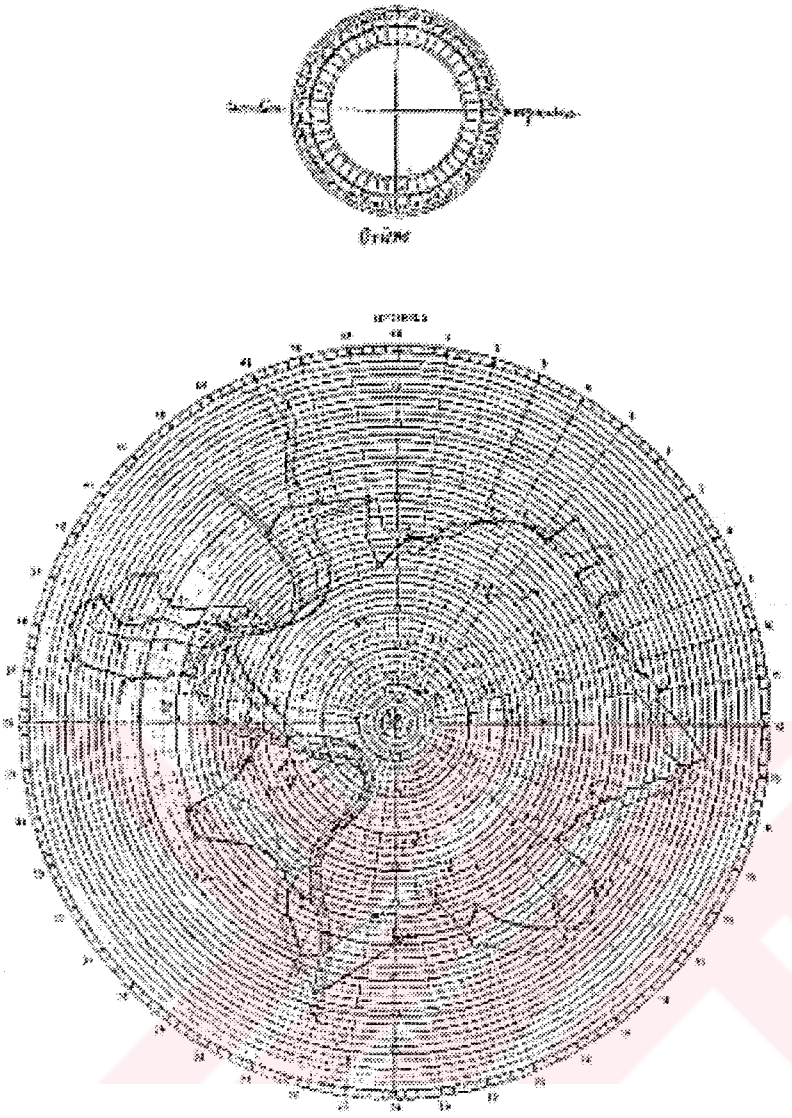
Ackerman additionally states that relevantly, for the Renaissance architect, the "plan" carried more importance than the "section" or "elevation" drawings, as seen from the frequency of the appearance of these drawings in that period. The majority of the drawings from the period show that the architect started to concentrate on the project from the center towards the periphery, whereas the elevations are left to be decided on after the plan has been determined (Ackerman: 1954: 9).

Within this context, the Renaissance architect seems to start the creation process of the building from the center to visualize the architecture from the viewpoint of an observer. Relevantly the architect correlates himself with the observer by standing at the supposed center.

3.3 The Dis - Positioning of the Subject

Besides his essay *Panopticism* Foucault is the author of another essay, which in both he deals with the visual relationship between subject and object. Foucault, starts his book, *The Order of Things* with the essay of a painting called *Las Meninas.* For Preziosi it is surprising that Foucault does not connect this essay to the issues in the panopticon (Preziosi: 1989: 202n).

John Searle, who is an art historian, indicates that the relationship between the painter and observer until Velázquez was generally portrayed with a conventional method besides some exceptions. These exceptions were seen in Dutch painting, where the mirror as a figural object of the overall composition was commonly used, as in Jan Van Eyck's (1385 – 1441) *The Arnolfini Marriage* (1434) (fig. 3.2), and additionally in portraits of painters painting themselves being painted.



42. Diagram from the manuscript of Alberti's Descriptio urbis Romae. From Città del Vaticano, Biblioteca Apostolica Vaticana (cod. 3).

43. Reconstruction of Alberti's map of Rome (ca. 1450). From D. Vasoli, "La 'descriptio urbis Romae' di L. B. Alberti," Quaderni dell'Istituto di Elementi di Architettura e Rilievo dei Monumenti di Genova 1 (1968), p. 22.

Fig. 3.1 Leon Battista Alberti, diagram from the manuscript of Alberti's *Descriptio urbis Romae,* and reconstruction of Alberti's map of Rome (cA. 1450).
Source: Liane Lefaivre. Leon Battista Alberti's Hypneroto-machia Poliphili. Cambridge; MIT, 1997: 129.

According to the conventional method, the painter of the artwork formulated the resulting work from the observer's assumed standpoint. Therefore, the painter accomplished his work by placing himself in the location of a probable observer (Searle: 1980: 247). Searle expresses that the painter had to produce a work of art by displacing himself with an imaginary observer, where the painter correlates himself with the observer. However, in the example of *The Arnolfini Marriage,* this correlation is altered; a shift occurs where the painter who appears in the mirror on the wall becomes a part of the scene, a witness of the marriage. As a result of this correlation, the observer relevantly can find himself too in the scene as a witness. Here there can be noticed a dual expression of the word subject: the painter and the observer who are both experiencing a scene. Both forms of the subject, although correlated are different in character. In this painting, as a result of this correlation the observer and painter both take part in the scene and become objects and loose their positions as subjects.

Foucault investigates the inherent characters of this painting, which was painted in 1656 by Diego de Silva y Velázquez (1590 – 1660) for the royal family of Spain (Searle: 1980: 248). The significance of this painting lies in the visual shift of the positions of the painter, and of the observer. What is seen in the painting at first glance is a family. However, with a further observation, one notices the displacement of the painter present in the scene, but that is not all; there is a mirror on the background with two figures reflected, the king Philip IV and his wife Maria Ana (fig. 3.3). Again, as in the example of *The Arnolfini Marriage,* the existence of the mirror in the painting raises questions of the relationship between the painter and the observer. The mirror does not only displace the painter; it also displaces the observer and the object. The reflection of the royal couple, who is not present in the painting, indicates that it is actually they who are being painted by Velázquez. Since the observer is standing in the virtual location of the royal couple, the observer correlates with the couple. Thus, it is the observer who is being painted.

As a result, the painter, who is in the scene, has become a part of the object, the painting; whereas the royal couple, who are actually posing for the painting as indicated through the reflection in the mirror, have become the observers. In the case of the observer, there is a twofold situation. The observer is both seeing through the eyes of the painter and of those who are being painted. In other words, the observer cannot place himself in an exact position. Relevantly Foucault asks this question: "because we can see only that reverse side, we do not know who we are, or what we are doing. Seen or seeing?" (Foucault: 1970: 5). Furthermore, the observer experiences a displacement, where he can no longer relate himself to the painting. Additionally, in Velázquez's painting, there can be seen a figure to the left, who is looking through a doorway, into the scene. According to Foucault, Velázquez has not positioned this figure as he has positioned the Infanta and her maids, but as a figure with a different character (Foucault: 1970: 15). This figure is not watching the king and queen as the Infanta and her maids do, but gives a glance, a moment of interest as he passes by. He is "a visitor."

> Because they are present within the picture, to the right and to the left, the artist and the visitor cannot be given a place in the mirror: just as the king appears in the looking glass precisely because he does not belong to the picture. (Foucault: 1970: 15)

Fig. 3.2 Jan van Eyck, *The Arnolfini Marriage*, (1434).
Source: Phaidon Press Limited. The Art Book. London: Phaidon Press Limited, 1994: 153.

Fig. 3.3 Diego de Silva y Velázquez, *Las Meninas*, (1656).
Source: Phaidon Press Limited. The Art Book. London: Phaidon Press Limited, 1994: 473.

Mirzoeff states that this composition of Velázquez to the left, the reflection of the king and queen at the center, and the visitor at right coincide with the fact that none of these subjects, the painter, the posers (the king and queen) and the observer (the visitor) can find themselves a position while viewing the painting. Mirzoeff further explains that Velázquez painted a composition of royalty, in which the figures are all from those who had the right to present at court (Mirzoeff: 1995: 110).

> Velazquez further controlled the possibilities of spectatorship by including all those who had the right to be present at court within his painting, such as the male and female courtiers, the Infanta, the court dwarf and even pets. (Mirzoeff: 1995: 110)

Mirzoeff further states that this ordering presents a hierarchical positioning of the possibilities of spectatorship of these persons from the court. Therefore, Velázquez leaves no other possibility for any other person. Every person is actually in the picture. "However, the ordered spectatorship of the Classical period had given way to a hybrid spectator, who disrupted the painter's gaze from beyond the control of the frame" (Mirzoeff: 1995: 111).

As a result, Velázquez has left no space for any "visitor" to intervene in the scene. Therefore, any observer, who stands before the painting, experiences a dis-positioning of his/her own subject. Within this context, Foucault observes that:

> Around the scene are arranged all the signs and successive forms of representation; but the double relation of the representation to its model and to its sovereign, to its author as well as to the person to whom its being offered, this relation is necessarily interrupted. (Foucault: 1970: 16)

Consequently, it can be accepted that Velázquez in this work of *Las Meninas* intentionally painted a paradoxical composition of such, to break the bonds between the painter, painting and the observer.

3.4 Panorama and Diorama

Besides the visual constructions present in the perspective and in the painting Las Meninas, there exist two other visual schemes which are basically quite similar to the panopticon. These schemes are the *panorama* (1792) and the *diorama* (1823) (Crary: 1990: 112 – 113). These "visual apparatuses" especially the panorama were invented in the same period as the panopticon.

The panorama, similar to the panopticon is a cylindrical construction, where the observer stands at the center. However, the panorama differed within the respect that it was an enclosure with paintings in the inner walls. The interior of the panorama was covered with a 360-degree painting of an imaginary scene composed by visual techniques such as perspective and scale. The observer is placed in the darkened center and the interior of the panorama is lighted from above (Friedberg: 1998: 257).

Anne Friedberg, an art historian, expresses that the panopticon and the panorama are quite similar by means of the spatial quality they construct. Both of these visual constructions are composed

of cylindrical enclosures. Friedberg additionally asserts that the interior surfaces of these enclosing walls, at the same time, are where the object(s) that are to be viewed are placed. The inner walls of these two constructions are arranged, within the whole of its inner space, as if they are exhibition panels. Friedberg further claims that these exhibition panels serve to create an attraction for the observer(s) at the center. Within the cylindrical walls, the observer in these constructions is confined in the center to receive the information from the periphery (Friedberg: 1998: 258).

Light is used in the panopticon to display the prisoners to the central watch-tower. In this model, light is a contributing factor, an element that besides transmitting information from the prisoner at the periphery to the watch-room at the center also provides the necessary illumination for the prisoner's individual rehabilitation. Whereas in the model of the panorama, light similarly is a vehicle to carry the image of the paintings to the observer at the center. The observer in this scheme of the panorama, however, is not confined in a space such as the watch-room in the panopticon, but has a possibility of moving around within the enclosure of the inner walls. Thus, the panorama is a later derivation of the panopticon.

Another scheme, which resembles both the panopticon and the panorama is the *diorama*. Jonathan Crary, who is a scholar in the field of visual techniques, asserts that, similar to the previous visual models, the observer is placed at the center of the construction of the diorama. Crary further states that the diorama as a visual construction is composed of changing scenery, with lighting effects and a rotating platform at the center. The observer of the diorama is positioned on this rotating platform, which turns according to the changing attractions of the scenery at the periphery of the platform (Crary: 1990: 112 – 113).

> Like the panopticon, the diorama-building was an architectural arrangement with a center position for the *seer* with a view to 'cells' or 'galleries.' Yet unlike the observation tower of the panopticon, the diorama platform turned (the auditorium rotated 73 degrees) to mobilize the viewer. The diorama had a *collective observer*, a shared audience on the moving platform. Dioramas and panoramas were not directly instruments of social engineering, but were, nevertheless, conceived of as satisfying a social desire or curiosity – a desire to have visual mastery over the constraints of space and time. The technology of the diorama relied on spectator immobility, but offered a visual excursion and a virtual release from the confinements of everyday space and time. (Friedberg: 1998: 261)

These visual constructions of the panorama and the diorama are not instruments, which are created to reform social structure, such as the panopticon. The panorama and diorama are only to fulfill the expectations of mere entertainment by displaying a world beyond everyday life. However, both panorama and the diorama function by the similar means in the way information is transmitted and received. In this respect, at first glance what differs are the intentions that they are in service for; in the panopticon the intention is social rehabilitation, in the panorama and diorama it is to entertain.

Friedberg states that besides the basic difference in the intentions of these constructions the observer's situation in these schemes is handled quite differently. The positioning of the observer in the panorama and the diorama are characteristically different, since the observer is relevantly mobile according to the spectator of the diorama (Friedberg: 1998: 260).

> The diorama differed significantly from the panorama: the diorama spectator was immobile, at the center of the building, and the 'views' were mobilized at the entire diorama building with its pulleys, cords, and rollers became a machine for changing the spectator's view. (Friedberg: 1998: 260)

In the diorama, the observer has no need to move, since the platform rotates according to the changing scenery. Whereas, in the panorama, the observer has the relative possibility of at least turning his/her head, let alone being able to move around in the interior of the panoramic space. However, in the panopticon, the observer is placed in a confined space, where his/her own presence is enclosed by the watchtower. The fact that the panopticon is an instrument that works without the inspector, should be reminded. This is an important point, since this is the point where the panopticon primarily differs from the panorama and the diorama.

> But if the panopticon was dependent on the enclosure of the look, the inward measure of confined but visible subjects, the diorama was dependent on the imaginary expansion of that look. Unlike the jailor-surveyor, the dioramic spectator was not attempting mastery over human subjects, but was instead engaged in the pleasures of mastery over an artificially constructed world, the pleasure of the immersion in a world not present. (Friedberg: 1998: 261)

Thus, it is seen that as a result of this system in the panopticon, panoptic space functions without the inspector, and this space differs from the systems of the panorama and diorama.

Within the diorama and the panorama, the systems propose their settings with the respect that the observer is a contributing part of the space. As explained by Friedberg, "[t]he panorama and the diorama were building-machines with a different objective: designed to *transport* – rather than to *confine* – the spectator-subject" (Friedberg: 1998: 256 – 257). However, this is again the point where the panopticon as an architectural scheme does not accept the identity of the observer, since the observer is signified by the institutional identity.

3.4 Knowledge and Media in the Twentieth Century

The resemblance between new technological devices and Bentham's disciplinary architecture constitutes an important point. Technology based on information reception and transmission was an important feature of Bentham's panopticon in the late Eighteenth Century, and it is also an important feature of the new technological devices in the contemporary situation. In the considerations of both periods, "gaining knowledge" was one of the main principles of authoritative power. In the late Eighteenth Century "having knowledge" was a privilege and for the succession of this the panopticon was a privileged space, where the authority, through the "all seeing gaze", had the right to "know all" about the prisoners. Whereas today the situation is different. In the contemporary period, the number of the instruments of transmitting information have increased so much that possessing these instruments and obtaining knowledge have become common experiences. In the information age, ideally every individual has the right to know and to transmit educational and

occupational information. However, in the Eighteenth Century it was the opposite, possession of knowledge of this kind was a privilege since this right belonged to institutional authority.

There exists a significance here, which should be pointed out. In the period of the evolution of the panopticon, society was centered to the identity of the secular state, since the state was the actual source of power. Only the state and institutions had the power to know and to gain information. Thus, the reflection of the power of the state was seen in the identity of institutional organizations such as the prison.

> There is no risk, therefore, that the increase of power created by the panoptic machine may degenerate into tyranny; the disciplinary mechanism will be democratically controlled, since it will be constantly accessible "to the great tribunal committee of the world." (Foucault: 1975: 207)

As Foucault has foreseen, disciplinary space is not doomed to be imprisoned in panoptic space, on the contrary, it is to be exercised in different forms by the society as whole since individuals gain the rights of transmitting and receiving information. For Foucault "[t]he seeing machine was once a sort of dark room into which individuals spied; it has become a transparent building in which the exercise of power may be supervised by society as a whole" (Foucault: 1975: 207).

Despite minor individual inequalities such as financial status and personal disabilities, with the functioning of democracy, the presence of libraries, educational institutions, media and the inventions of information transmitting devices, the individual gains the right to manipulate information in the contemporary situation. The act of the utilization of information has spread to every person; therefore, power that is gained through the ability to manipulate information has become a common thing to everyone. Every information manipulating person has become an individual center in the society. Every person has become the subject of his own territory like the inspector of the panopticon, and not an object of another person's work space, such as the prisoners of the panopticon. Thus, society has become de-centralized. This would seem as if the contemporary society was constructed of an infinite number of panopticons, but one point should not be missed. If every person is to be accepted as the inspector of his own territory, it should be noted that in this workspace power is exercised by the person himself and not by an authority. Therefore, the individual is the representative of his own presence, and not of an authority.

3.5 New Disciplinary Technologies

Besides the medical sciences and penology, the influence of this machinery of power, the metaphor of panoptic vision has shifted to other disciplines, such as literature, photography and cinematography. These media have developed after the period of Jeremy Bentham, in the Nineteenth Century. Although these disciplines are not directly related with architecture, they do have their own media in which vision is captured and power is exercised.

Erkki Huhtamo, who is a contemporary theorist of media, explains that although many optical machinery such as the panopticon have not been realized much in the course of history, these

machines have been "discursive inventions" (Huhtamo: 1996: 303). As Huhtamo further states, "[f]rom such a point of view unrealized "dream machines," or *discursive inventions* (inventions that exist only as discourses), can be just as revealing as realized artifacts" (Huhtamo: 1996: 303).

Although the notion of disciplinary power is not the primary founding aspect of modernization, it has still influenced developments in the field of optics. However, the character of modern optical power, which is being widely used in contemporary optical machinery, is different. Modern power is no longer confined in a specific space with strict applications. According to the contemporary theorist Chris Jencks, the modern gaze is pervasive, since what is said and what is done may not be the same, or even the individual may not even notice any of these. The "all seeing gaze" is still in use, but for what intention and how it is done is different and may even be ambiguous. Jencks adds that "[t]he 'gaze' and the conscious manipulation of images are the dual instruments in the exercise and function of modern systems of power and social control" (Jencks: 1996a: 15).

> The model for this delicate power is provided by Bentham's Panopticon and appropriated by Foucault to epitomize a vision of modernity's optical discipline at once combining abstract schematism and a range of practical applications. (Jencks: 1996a: 15)

The metaphor of the central gaze in the panopticon can be seen as a general feature in modern society. In the modern context the gaze is seen in the form of "the power of surveillance," which is still used in institutional environments to maintain knowledge of their objects. These environments do not differ from Foucault's institutional spaces, which use the "gaze". This is a result of Bentham's manipulation of the panopticon.

> It matched enlightenment to utility in its functional utopia of a transparency which would enhance power through knowledge. It would see its subjects continuously without, it was assumed, provoking the forms of revolt which came in response to physical brutality. As a method, surveillance was thus an alternative to cruelty. Moreover as an observation machine at the inception of industrial society it paved the way for later forms of surveillance by other observation machines. (Orr: 1993: 59)

According to the theorist John Orr, recently various kinds of observational machinery have been developed. These new technological devices function in a similar way as the panopticon, but cannot be assumed as new forms of the panoptic space. The panopticon can be associated with these types of machinery as a metaphor of the use of power (Orr: 1993: 59).

> Now, in the electronic age, these are almost too numerous to be counted –telescopes, telephones, computers, bugs, closed-circuit television, sound-recorders, cameras of all kinds of descriptions, satellites, sensors, infra-red and laser rays. In an age of information the cult of information worships to excess its own sophisticated technologies. (Orr: 1993: 59 – 60)

In the name of modernization, these instruments have been created to make one's life easier and more practical. These devices have been introduced to modern life to become a professional part of certain aspects of the working environment. According to Orr, "telescopes, telephones, computers, bugs, closed-circuit television, sound-recorders, cameras of all kinds and descriptions, satellites, sensors, infra-red and laser rays", all of these instruments have become an internal part of everyday

life, since, with these the transmittance of information has become much easier (Orr: 1993: 59 – 60). As machines that introduce control over individual lives, the panopticon has become a general metaphor for these devices, to explain the way in which information is manipulated.

According to Batchen, the observer of a photograph is in a similar position with respect to the panopticon. The observer, in this position is obliged to place himself into an imaginary place between the camera and the depicted scene. Therefore, the observer's presence is actually imaginary, the observer is not really there, he is absent. Batchen states that similar to the context in the panopticon, the observer is "continually projecting himself into a space between tower and cell, the panoptic subject is the object of his own gaze" (Batchen: 1998: 277).

> Seen in the context of its own convoluted etymological history, photography is in its turn strikingly reminiscent of the paradoxical play of disciplinary power that Michel Foucault has associated with panopticism. Conceived by Jeremy Bentham in 1791 (i.e. in the same decade that photography is also conceived), the Panopticon is, for Foucault, the exemplary technological metaphor for the operations of modern systems of power. (Batchen: 1998: 277)

Friedberg claims that the positioning of the subject, in other words, the observer, in the construction of photographic vision is similar to the positioning of the observer in the construction of cinematographic vision (Friedberg: 1998: 256).

> As an analogy for cinematic spectation, the model of the panoptic guard (the *unseen seer* in the position of omnipotent voyeurism) is not literal, but figurative and metaphoric. Like the central tower guard, the film spectator is totally invisible, absent not only from self-observation but from surveillance as well. But unlike the panoptic guard, the film spectator is not in the position of the central tower, with full scopic range, but is rather a subject with a limited (and preordained) scope. The film spectator's position is one of such *imaginary* visual omnipotence. (Friedberg: 1998: 256)

In a relevant condition, the resemblance of the panopticon to cinematic spectation stands with the panoptic guard taken as the basis of a metaphorical analogy. According to this analogy, the director shoots the film; he records scenes from the environment with his camera. This is actually a two-way recording of information, on one side there is the cameraman who is shooting the scene, and on the other hand there is the scene that is to be recorded. However, the film spectator observes the scene as an outsider. This two-way information purchase is present even if there is no observer, the presence and the absence of the observer is the same for the film or the director. The observer has no directly active role in cinematography. Nevertheless, cinematography differs from "panopticism". The panopticon is based on the presence of an inspector who is supposed to stay invisible. The guard of the central tower in the panopticon has a role of being absent in the process of information exchange. The inspector is supposed to record the prisoner's behaviors, although he is not seen, he is still watching. However, in cinematography, the observer, is an outsider, is a person who watches after all has been said and done. The absence or presence of the observer in the process of information exchange in the shooting of the film is not a fundamental matter at this point. The spectator's presence becomes important as an anonymous person after the information exchange occurs between optical machinery and the scene. The shooting takes place for an anonymous person to experience afterwards.

This anonymous person actually has no place in the setting of this machinery, whereas in the panorama and the diorama the settings worked with the subject. According to Orr, the exercise of power through the camera is relevant to the exercise through panoptic space (Orr: 1998: 60).

> As an instrument, the camera has grown up as part of a culture of surveillance whose possibilities it enhanced. Cinema, as a medium, was destined, therefore, to be highly self-conscious. In all the great modern film-makers there is a tendency to take issue with the power of the gaze, and to explore the sensitivity of the camera as its willing instrument. (Orr: 1998: 60)

There were also similarities between photography, cinematography and literature. Timothy Mitchell, who is a contemporary theorist, states that among these disciplines, the creative subject, namely the writer and the person behind the camera viewed the world from behind a tool. For the writer this was his medium, the pen and paper and for the photographer or cinematographer, this was the camera. By keeping their identities within the frames of their works, the viewed object stood in front of the identity of the camera instead of the subject (Timothy Mitchell: 1998: 470).

> Bentham can remind us of one more similarity between writer and camera, and of what it meant, therefore, to grasp the world as though it were a picture or exhibition. The point of view was not just a place set apart, outside the world or above it. Ideally, it was a position from where, like the authorities in Bentham's panopticon, one could see and yet not be seen. The photographer, invisible beneath his black cloth has eyed the world through his camera's gaze, in this respect typified the kind of presence desired by the European in the Middle East, whether as tourist, writer or, indeed, colonial power. The ordinary European tourist, dressed in either 'a common felt helmet or wide-awake, with a turban of white muslin wound around it' or alternatively a pith helmet, together with a blue or green veil and 'coloured-glass spectacles with gauze sides,' possessed the same invisible gaze. The ability to see without being seen confirmed one's separation from the world, and constituted at the same time a position of power. (Timothy Mitchell: 1998: 470)

The subjects of these machines stand at a specific viewpoint to gain a desired view of the object(s) and use this machinery to obtain the desired view. According to David Bordwell, who is a historian of film studies, the ambition of the director is to create an omnipresent observer who gives the audience the best possible viewpoint at each moment and action (Bordwell: 1996: 89). Additionally the same goes for the writer, who uses his script. This is the point where the subject's identity is dominated by the omnipresence of the power of the photographer's and cinematographer's camera or of the pen of the writer. The visual constructions supplied by these machines create a shift in the positioning of object and subject, since the presence or absence of the viewer does not constitute a subjective change in the process of constructing the visual scene. Similar to the inspector of the panopticon or the observer of Las Meninas, the viewer of the cinematographic or photographic images does not need to carry an identity since he cannot place himself within the initial construction. Within these constructions, it is impossible for the observer to identify his position, his role or even himself.

> Here the optical networks set up by screen and camera, observer and observed, stage a voyeuristic space in which objects and subjects alike are trapped *en abîme*. But while the apparent trajectories of the eye, marked by the intersecting visual cones of so many lenses, seem to replicate the laws of true vision, in fact the space is traversed by the lines of "pseudo-optics" established not so much by the geometries of real optical systems as by the psychology of the viewers. And

> viewers are equally absent in this simulated science where objects take their place, describing an optical scene that both includes and excludes subjects, or rather includes them in the form of a system of virtual signs. (Vidler: 1992: 159)

Between the years 1931 and 1933, Le Corbusier, one of the important figures of modern architecture, proposed a conceptual project in the urban scale and named it *The Radiant City (Ville Radieuse)*. In this project, Le Corbusier incorporated technology into architectural space as if the apartment flat was a "machine to live in" (Le Corbusier: 1933: 7). For Colomina, Le Corbusier's application of technological design in his project resembles the visual technology of the camera (Colomina: 1994: 323 – 326). Colomina expresses that "[f]or Le Corbusier, "to inhabit" means to inhabit the camera. But the camera is not a traditional place, it is a system of classification, a kind of filing cabinet" (Colomina: 1994: 323). Colomina further asserts that ""[t]o inhabit" means to employ that system. Only after this do we have "placing," which is to place the view inside the house, to take a picture, to place the view in the filing cabinet, to classify the landscape" (Colomina: 1994: 323). According to Colomina's depictions, Le Corbusier conceives space as a system or machine that works in the name of the individual, a tool of classifying objects, or scientifically perceiving the environment for persons.

> The critical transformation of traditional architectural thinking can also be seen in *La Ville radieuse* where a sketch represents the house as a cell with a view. Here an apartment, high up in the air, is presented as a terminal for telephone, gas, electricity and water. The apartment is also provided with "exact air" (heating and ventilation. (Colomina: 1994: 323)

To explain the significance of Le Corbusier's intentions in *La Ville Radieuse*, Colomina interprets a sketch of his (fig. 3.4). In this sketch, Le Corbusier displays his intentions concerning the utilization of the window of each residential unit in this project. In the sketch, a section of an apartment is depicted with a small figure of a person standing in front of a window. Besides the figure of the person, a large figure of an eye can be depicted viewing the surrounding landscape.

Le Corbusier intended on utilizing technology at the maximum, such as using machines for ventilation, and using the window as a tool for only viewing the environment, and not receiving fresh air. Thus, according to Colomina, for Le Corbusier the apartment had become a machine for depicting, classifying the environment, and penetrating into the exterior world (Colomina: 1994: 326).

> Inside the apartment there is a small human figure, and at the window a huge eye looking outside. They do not coincide. The apartment itself is here the artifice between the occupant and the exterior world, a camera (and a breathing machine). The exterior world becomes an artifice; like the air, it has been conditioned, landscaped – it becomes landscape. The apartment defines modern subjectivity with its own eye. The traditional subject can only be the visitor, and as such a temporary part of the viewing mechanism. The humanist subject has been displaced. (Colomina: 1994: 326)

As Colomina expresses, the modern residence becomes a tool for the individual, where the individual's identity becomes subjected and "displaced".

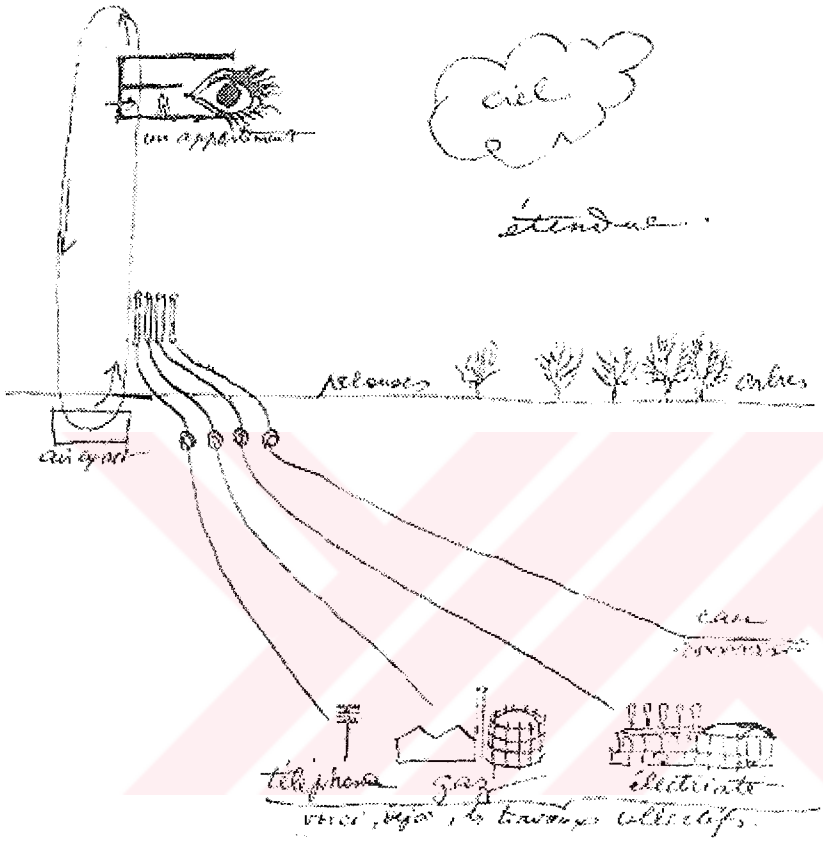


Fig. 3.4 A sketch of *La Ville Radieuse* by Le Corbusier (1931).
Source: Le Corbusier. (1933) The Radiant City: Elements of a Doctrine of Urbanism to be Used as the Basis of our Machine-Age Civilization. London: Grossman Publishers, 1967: 36.

Similar to the situation in *Las Meninas*, these systems only create media for the interaction of the object and the one who exercises power and no third persons can be included. These new optical systems are the re-constructions of Alberti's perspectival window of the Renaissance or of panoptic space itself. However, "the gaze" that is created "by these layered and fractured cones of vision is", no longer panoptical, since the intention no longer is to inspect (Vidler: 1992: 160).

According to Timothy Mitchell visualization techniques "were being slowly transformed by technologies that incorporated the new metaphors of cybernetics and television" in the modern era, especially in the post war period (Druckrey: 1996: 18). Thus, these optical instruments developed and intervened in everyday life.

> The assimilation of vision into technology had begun. In this environment, the reflexive representation systems of modernity were being gradually outdistanced by forms of recording, rendering, and surveillance in which information served as deeply as observation to regulate behavior. Indeed, information and representation were becoming firmly entangled in the discourses of advertising, politics, aesthetics, and cultural history. (Druckrey: 1996: 18)

In modernity, the empowerment of the subject by authoritative gaze began to cease and control mechanisms of imaging and being imaged emerged, such as in photography or the cinema. Druckrey states that "[a] politics of seeing, recording and accumulation emerged" (Druckrey: 1996: 18). Moreover, these recording instruments began to take place in scientific visualization also with optical instruments.

> Experience was circumscribed by a series of stages in which the displacement of vision by representational systems was both scientifically legitimated and culturally necessary. Photography, cinema, and scientific visualization coalesced with systems of illusion, recording, spectacle, information, and the public sphere. In a panoptic culture, the management of visuality identifies consumption as passive and production as empowering –essentials in the system of capital. (Druckrey: 1996: 18)

The principle of the disciplinary technologies of Enlightenment became a successive part of the development of the contemporary society, where the gaze became a dominating factor of the society's both political and moral structure. Druckrey states that "[t]his gaze was triumphantly technological, whether in the architecture of Jeremy Bentham's Panopticon or in the lens of the camera" (Druckrey: 1996: 18).

Further features of developing disciplinary technology can be observed in the electronic field and especially in computer technology. These developments provide innovative optical constructions that serve this disciplinary culture. Due to the proceeding developments in computer technology, systems of vision and visualizing have spread widely through electronic networks. As a result of this "we live," according to Andrew Barry, "in a 'surveillance society'", where people are continuously inspected through monitors (Barry: 1996: 45). Some scholars such as Barry and William Mitchell express that in the electronic network there exists surveillance, despite the fact that, surveillance is, in reality an act of inspection [6]. However, it is not inspection, which is a significant feature in the electronic network, but it is again, the feature of control. Even if there exists a

mechanism of inspection in the electronic network, it does not have any direct effect on the common person. Individuals act within their respectful, however limited freedom in their territories (work place, rehabilitative space or electronic network) in modern society. The common person may only carry the worry of the possibility of some other person coincidentally seeing his act in his domain of the network.

William Mitchell states that George Orwell, who is an English writer of the first half of the Twentieth Century, (1903 – 1950), prospectively expected that technological devices would take over the role of panoptic space and he further displayed this in his script named "Big Brother", in which Big Brother represented a symbolical authoritative eye that constantly watched. William Mitchell adds that this was significant of the world of the 1980's, when the television monitor constantly displayed a graphical image of the presence of the Big Brother. William Mitchell further states that if Orwell had known the technical details, he would have noticed that it was not possible for one Big Brother to watch every individual. William Mitchell further asks: "[w]here would he have found the labor force to watch them all? How would he have shifted through and collated all that information?" (William Mitchell: 1995: 157)

According to William Mitchell however, there is no direct effect of the presence or even the absence of one Big Brother, on the everyday life of any common person. What is more likely to effect the life of the common person is the presence of "a vast storm of Little Brothers" (William Mitchell: 1995: 157). This presence of many Little Brothers instead of one Big Brother is parallel to the previously explained transformation from the "society of surveillance" to the "society of control". The existence of one "Big Brother" watching, is something that would fit in the "society of surveillance", where there is one "all seeing gaze" keeping an eye on the individual. However, in the "society of control" there is a possibility of an infinite number of external eyes coincidentally seeing our moves, so the individual is pushed to control his own actions.

Besides being watched by other persons, the individual is also subjected to a possible "look" of technological devices. These devices are mostly derivatives of computer technology, such as the Internet or other network systems. These devices are not necessarily used to inspect the movements of others, however in some situations they are utilized as instruments which gather personal information.

> Every computer input device became a potential recorder of our actions. Every digital transaction potentially left fingerprints somewhere in cyberspace. Huge databases of personal information began to accumulate. And the collation problem was solved; efficient software could be written to collect fragments of information from multiple locations in cyberspace and put them together to form remarkably complete pictures of how we were conducting our lives. We entered the era of dataveillance. (William Mitchell: 1995: 157)

William Mitchell claims that the collection of "fragments of information from multiple locations in cyberspace" results with images of the individual. These images are used to identify the acts of these individuals.[7] Additionally, William Mitchell expresses that this act of collecting information of the lives of individuals, is a general feature of the society we live in, and that we are in an era of "dataveillance" (William Mitchell: 1995: 158). However, although it has been stated that we

are in an era of "dataveillance", this act of collecting personal information is not a general feature of the contemporary society. This can only be performed by persons or institutions that operate on this information in regards of their profession. William Mitchell states that one example of the exercise of "dataveillance" is the TRW credit report which can be obtained by salespersons when the required information of the person who wishes to purchase goods is necessary. As a result of the output of information of the individual, power is exercised through an act of control; "that printed report was as vivid a demonstration of power as any face peering out from a display screen" (William Mitchell: 1995: 158). However, this is not an act of inspection, such as in the panopticon. The individual is not directly forced to behave in favor of an institutional benefit, but for the benefit of himself within the limits of the law, and thus, his financial expenditures are recorded. Therefore, the individual is obliged to control himself.

> The individual is not subjected to a continuous paranoia of being watched by an omnipotent eye. The individual is subjected to control himself under his own identity and there are not headquarters of surveillance which intervene in every part of personal life. However, it is true that in the electronic network, the individual leaves trails, and that these trails carry partial information of the individual (William Mitchell: 1995: 158 - 159).

Thus, these trails when brought together may give a complete picture of the individual. However, this is the result of an act of providing security by an institutional authority and the intention is not to intervene in the individual's personal life.

In the contemporary period, the maintenance of the privacy of individual lives has to be performed with a balance between the amount of information sent out into cyberspace and the content of this information. Since there is a possibility of this information being viewed by a third person, one should stop to think for a moment if it is secure to send this information through the network. Thus, information systems already warn us of this possibility and ask whether we would still prefer to send this information.

> As we construct and inhabit cyberspace communities, we will have to make and maintain similar bargains – though they will be embodied in software structures and electronic access controls rather than in architectural arrangements. And we had better get them right; since electronic data collection and digital collation techniques are so much more powerful than any that could be deployed in the past, they provide the means to create the ultimate Foucaultian dystopia. (William Mitchell: 1995: 159)

However, this is not a "dystopic feature" of contemporary societies, since the individual has the freedom of choosing between privacy and insecurity through his own controlling mechanism. Julian Stallabras, who is a contemporary theorist of technological environments states that cyberspace seems dystopic "[m]ost of all, perhaps, because fictional cyberspace has a fascination as a glossy, technophile's dystopia, which contains some curiously utopian elements" (Stallabras: 1995: 7). Stallabras further explains that new electronic media grant the individual with free power and information (Stallabras: 1995: 17). Thus, as a result of the power exercised through the electronic network, the individual through his repressions will cause further transformations in disciplinary space. Moreover, the panoptic gaze has become a catalyzer of the individuals' workspace. The gaze

that used to be a threat in the disciplinary space of the Enlightenment is now not only a means of providing the security of the individual, it is also a means of a secure mastery in the work space.

> The panoptic metaphors of Bentham and Foucault are reinvented in the technosphere in the guise of electronic "agents," digital security systems, genetic screening, satellite-imaging technologies with an imaging capability of under one meter resolution from 35,000 miles in "space," SkyCam news networks with robotic cameras surveying for crisis...in short, more than a panoptic metaphor, a *transoptic* one, in which the invisible threat of the gaze is welcomed as a symptom of containment and stability. (Druckrey: 1996: 18)

As it is explained by Michael Benedikt, who is a contemporary theorist of electronic environments, a further significance in electronic space is in the terminology. It is interesting to see that the lexical meaning of the word "cyberspace" is, space that is steered or space that is governed, or in other words, "space that is under control" (Benedikt: 1991: 129). According to this definition, it is clear that "cyberspace" is a part of the "societies of control".[8] This control of space is a relevant aspect to the self-control of the individual. Another significant point of electronic space is the presence of "icons", similar to the presence of the "icon" of power in the panopticon. The "icon" is a very widely seen figure in the electronic sphere, especially on the screen of the common personal computer. The "icon" is actually an image of a specific aspect of the computer environment, which is activated when a person interacts with this image. Within this context, this image is used to summon and to utilize an object that is specifically not there. Therefore, the "icon" differs from the "icon" in the panopticon in the respect that in the computer it is an element of recalling information from different places to the individual. Whereas in the panoptic space the icon was an element through which power was exercised to collect information from the individual in the central watchtower. Here it is seen that the process has become the inverse of the initial functioning of the panopticon. This reversal of the panoptic space carries the implication of a realm of distant points brought before us through many "icons", instead of a limited view of the world through one single "icon" of power. The individual person, therefore, can reach any space that is even beyond the visual field, to gain information.

> Until today, Jeremy Bentham's panopticon expressed the now-obsolete desire to see everything from one place, to focus the world on an axis mundi, or, better yet, a punctum mundi. It revealed an archaic impulse to enhance presence by choosing a special vantage point from which to survey the horizon, like the Dauphin, a will to assert power and singularity in the concentration of being-here, an urge to bring the mountain to Mohammed. A new condition is upon us, or, perhaps, a new desire has overtaken us. That desire is manifested in the construction everywhere, of the pantopicon. (Novak: 2)

This topological interpretation of the panopticon clearly explains visual culture in the contemporary situation. According to Marcos Novak, who is a contemporary architectural theorist, there is no need for the subject in today's society to geographically travel to reach information. This disciplinary technology may seem dystopic in feature. As explained by Novak, it is clear that "[i]n spite of all this machinery of transfer, we get no closer to the productive unconscious of sight," but "instead we only get as far as its unconsciousness, an annihilation of place and appearance the future of which it is still hard to imagine." (Novak: 1). However, it is this machinery again, that provides the credibility of the "re-vision" project of the Arnhem Koepel Prison. Since this "re-vision" project has

not been applied to the existing panopticon, what is seen in the graphic images and what OMA says about the project give the impression of a successful "re-vision" of the strict disciplinary space in the panopticon.

4.3 Perspective and Camera

Besides disciplinary space, one of these schemes in which a transformation is experienced, is the perspective. This use of lines in the perspective, is actually a means of carrying the depiction of moving visual object(s) from a three-dimensional presence into another two-dimensional environment. In the Renaissance, perspective was used to have power over nature by means of transmitting scenes of nature onto a canvas. Gilles Deleuze, explains that the canvas is not just a plane on which realistic scenes may be depicted. Deleuze claims that as a result of the painter's act of depicting scenes of nature onto his/her canvas, "lines," which display and give form to perspective have been used in a specific way.[9] However, this specific use of lines in perspective has limited the sphere of "lines" in general into a single use. Deleuze states that "lines" have been enclosed in the world of perspective, and especially in the act of painting (Deleuze: 1987: 52 - 53).

> There is no falser problem in painting than depth and, in particular perspective. For perspective is only a historical manner of *occupying* diagonals and transversals, lines of flight, in other words, of reterritorializing the moving visual block. We use the word "occupy" in the sense of "giving an occupation to," fixing a memory or a code, assigning a function. But the lines of flight, the transversals, are suitable for many other functions besides this molar function. Lines of flight as perspective lines, far from being made to represent depth, themselves invent the possibility of such a representation, which occupies them only for an instant, at a given moment. Perspective, and even depth, are the reterritorialization of lines of flight, which alone created painting by carrying it farther. (Deleuze: 1987: 52 - 53)

Since the invention of the photograph, the notion of the depiction of depth into painting has changed. According to Evans, the reason of this change is the closeness to reality of the depiction of nature in the photograph. Therefore, the act of representing nature through painting has ceased to be a false notion since the photograph is obliged to do this better. This has falsified the notion of transmitting the three-dimensional quality of the vision of nature onto the two-dimensional canvas in the art of painting (Evans: 1995). Thus, painters have sought new forms of painting since the emergence of the photographic representation. As stated by Deleuze, since the beginning of the Twentieth Century, perspective is no longer the only method of "occupying" lines in painting, lines should be set free from the structural form of "perspective" (Deleuze: 1987: 53).

> What is called central perspective in particular plunged the multiplicity of escapes and the dynamism of lines into a punctual black hole. Conversely, it is true that problems of perspective triggered a whole profusion of creative lines, a mass release of visual blocks, at the very moment they claimed to have gained mastery over them. (Deleuze: 1987: 53)

This aspect of the fragmentation of the visual cone is significant in the works of Pablo Picasso (1881 – 1973), the famous painter of the Twentieth Century. Robin Evans claims that Picasso's paintings imply the transformation in the understanding of visual depiction (Evans: 1995: 91 – 92, 100 -101). Evans further asserts that the fragmentation in visual depiction is a response to the confining strict constructions present in architecture and painting as in the disciplinary space of the panopticon and in the limits of the application of geometry and consequently of perspective in painting. Evans states that "[f]ragmentation induces anaesthesia or thoughts of pain. It indicates humanism or the end of humanism. It has been described as a critical instrument, and it has been described as irrational" (Evans: 1995: 100 – 101). Furthermore, according to Evans' statements, this fragmentation implies a break from the surveillance of an authority to the emergence of the individual's self-control. "It is a means of liberation, a means of intimate control" (Evans: 1995: 101).

As seen in fig. 3.5, in the painting of Picasso, perspective has been applied as if the painter has viewed the depicted object through a fragmented visual cone. The rules of perspective have been applied in a fragmented manner to obtain a depiction of an object viewed from many points through one picture-frame. Evans explains the fragmentation of the conceived visual field as a transformation of the understanding of the visual construction: "It is a way of responding to function and a way to impede function; an escape from geometry or geometry's apotheosis; a method of unification or a triumph over unity; a way to destroy or enhance individuality" (Evans: 1995: 101).

This has resulted with the de-centralization of the depiction of the three-dimensional visual field onto the two-dimensional canvas of painting. The painter from then on could change his/her place from the center of the visual block to perceive objects from multi-perspectival angles and to depict these objects as such on canvas. The Renaissance man's all-seeing central point was no longer the only applicable method of depiction. Thus, the painter did what the photograph could not, which was to subjectively visualize and depict scenes from more stationary points than one, at the same time.

While the metaphor of the panopticon still exists in modern society, as seen in the optical machinery of new technologies, it is interesting to see that the conventional method of perspective drawing has been rejected by such a famous artist and many others in the Twentieth Century. The scheme of positioning an observer at the center of an assumed visual field draws the frame of a revolutionary system of depiction. This revolutionary optical system has brought a new "vision" to the modern individual. This is similar to the rejection of the panoptic system in the Arnhem Koepel prison. The panoptic system was no longer utilized by the inspectors as if they did not want to inspect the environment from that powerful central point. May be it was that the guards expected to see the prisoners through an optical system other than the "all seeing gaze".

Fig. 3.5 Pablo Picasso, *Weeping Woman*, (1937).
Source: Phaidon Press Limited. The Art Book. London: Phaidon Press Limited, 1994: 356.

NOTES

[1] This is a general outcome of the "network of mechanisms", which Bentham intended to achieve with his design of the panopticon. The significance here lies in the inherent structure of the panoptic system, which is totally autonomous with relevance to its function. This system is considered to be applicable to any corporation where surveillance is a case. Thus, the panopticon would function like a machine in accordance with the desired social structure (Foucault: 1975: 209).

[2] According to Foucault, the historical information regarding the specific composition could have been received from the Military Archive of Vincennes, A 1, 516 91 sc. Piéce.

[3] According to Bentham, abnormality was a deficiency for the work power of a society, where production was a main goal. The relationship between the etymological and lexical meanings of the words "norm" and "abnormal" carries significance when "work" and normality is of consideration. The lexical explanation and the etymology of the meaning of the word "abnormal" is taken from Webster's New World College Dictionary on Power CD, Version 2.5, Zane Publishing, 1996.

[4] Within this context, Sack states that institutional territory is defined by the workspace. Sack explains that every individual has a territory, in which the range of his possible actions is defined. Besides having a specific territory, the worker has an institutional role, with which the worker identifies himself. This identification is the workers representation of himself to the institution and to other workers. Relevantly, with the multiplicity of more than one individual there is the possibility of multiple actions or identities collected under the specific work space of the institutional identity (Sack: 169 – 215).

[5] Cited in Preziosi's *Rethinking Art History* (1989), from L. Alberti. (ca. 1435), *On Painting*. New Haven: Yale University Press, 1966: 51.

[6] Scholars such as Andrew Barry and William Mitchell state that in the contemporary situation we are living in a "surveillance society" (Barry: 45, W. Mitchell: 158). According to Barry, "surveillance has become a pervasive feature of modern societies, touching all areas of life" Barry: 45). However, as it is conceived in the discussion of this study, Deleuze states that this is not true. Deleuze states that it is not surveillance but control that motivates society (Deleuze: 1992: 3 - 7). Additionally, Foucault has expressed that his wish was not to express that the panopticon is a form of the modern society, but a "network of mechanisms" to provided an interrelated system (Foucault: 1975: 209).

[7] Cited from Roger A. Clark. (Roger A. Clark. "Information technology and Dataveillance," *Communications of the ACM* 31: 5 (May 1988): 498 – 512, in William Mitchell: 1996: 158).

[8] The lexical meaning of the word "cyber" (kybernan) is to "steer", to "act as a helmsman", to "guide, govern" (Stuart Jones and Mckenzie. Greek – English Lexicon, Oxford: Liddell and Scott, 1968: 1004.)

[9] At this point, the translator of Deleuze's text expresses that the "lines of flight" (lignes de fuite) here, mean "the lines in a painting moving toward the vanishing point, or *point de fuite*" (Deleuze: 52).

CHAPTER IV

THE KOEPEL ARNHEM PRISON: AN EXAMPLE OF CONTEMPORARY DISCIPLINARY SPACE

According to the previously illustrated qualifications of the panopticon, such as the positioning and the identity of the subject and the relationship of the subject to the architecture of the building, the architecture of the Arnhem Koepel "re-vision" project requires further investigation.

For Rem Koolhaas, the malfunctioning of the panopticon in the contemporary period introduced the necessity of the "re-vision" project. In the Arnhem Koepel Prison there exists a watch-room instead of a watch-tower, unlike Bentham's panopticon (fig. 4.1). The guards no longer used the watch-room to inspect. Thus, the main principle of central inspection had become useless and a prosperous amount of space that previously was necessary for inspection was waiting to be re-used (Koolhaas: 1981: 41; 1996: 241).

In the process of the "re-vision" of this panoptic prison, OMA has taken certain decisions for the achievement of a constructed layering, which constitutes the archaeology of the Arnhem Koepel (fig. 4.2 and fig. 4.3). These decisions specifically surrounded the idea of reconstructing a "modern" prison, which supplied every necessity of modern disciplinary space, on an architecture that no longer could sustain its own ideology (Koolhaas: 1996: 242). These decisions in general were to:

1. dismantle the panopticon's former center;
2. accept, and possibly extend, the surveillance culture that has spontaneously developed;
3. add facilities in a way that escapes the deterministic configuration of the existing architecture;
4. create spaces for collective use that end the limitations of solitary confinement;
5. create additional margins for future programs; and
6. identify and exploit the prison's (unforeseen) potentials. (Koolhaas: 1996: 242)

Without damaging the Panopticon's own past, the intention of OMA was consequently to justify the necessary modern disciplinary space with these decisions.

In the "re-vision" project of the Arnhem Koepel Prison two principles of the existing panoptic space constitute the main problem: firstly, the presence of the terrorizing gaze, and secondly, the solitary confinement of the prisoner. Since the Panopticon, as a complete system, does not accept any extension to be integrated into its complex, the problem of these additional spaces has arisen.

Therefore, as stated by Koolhaas, "[t]hese afterthoughts – parasites of the dome– impose a humiliating circulation pattern: prisoners must always return to the dome to exit again to its other extensions" (Koolhaas: 1996: 239). To solve this problem, OMA has decided to integrate the "chaotic conglomerate of sheds and extensions" that exist around the Panopticon into the central panoptic space. Additionally, with this integration, the watch-room would be ommitted and replaced with a new program. These extensions which actually enclose rehabilitative activities are integrated into a slit in the ground on two axes which intersect at the center to form a sunken street in the shape of a cross. Therefore, the central watch room is "crossed out" by a sunken street, which gathers social activities. With this solution, two important problems have been solved with one effective decision: the "all seeing gaze" has been "crossed out" by a street that constitutes an alternative for solitary confinement.

According to the new scheme for the Arnhem Koepel Prison, the new program has been integrated into the original panopticon as in the figures 4.4 and 4.5 as follows:

Figure 4.4: Podium

1. service/reception area
2. library
3. visiting room and cells
4. free – expression room
5. barber
6. meeting room
7. shop
8. kitchen
9. patio
10. quarters for difficult prisoners
11. infirmary, dentist, doktor
12. multi-purpose room
13. judo
14. gymnasium
15. studios
16. storage
17. instruction room
18. guards' cloak room
19. pool

Figure 4.5: Ground Floor

1. entrance
2. lobby
3. porters' room
4. meeting room
5. reception
6. exit to visitors area
7. visitors garden
8. dome floor
9. cells
10. pavillion for difficult prisoners
11. storage
12. track
13. sports field
14. pool
15. guards' canteen
16. shops
17. instruction department

With the alteration of the internal scheme of the panoptic space, the architectural renovations that have been proposed by OMA have consequently changed the panoptic system in the prison. They introduced a new visual system which does not depend on centrality, and on obscure spaces. Thus, the inspector is no longer confined in darkness and invisibility, and the object – subject – space relationship has changed in this prison.

These proposals in the "re-vision" project of OMA imply a renewal that captures contemporary issues in the discourse of the disciplinary space and the exercise of power. Thus, through the interpretation of this project certain transformations that have taken place since the Eighteenth Century may be re-conceived.

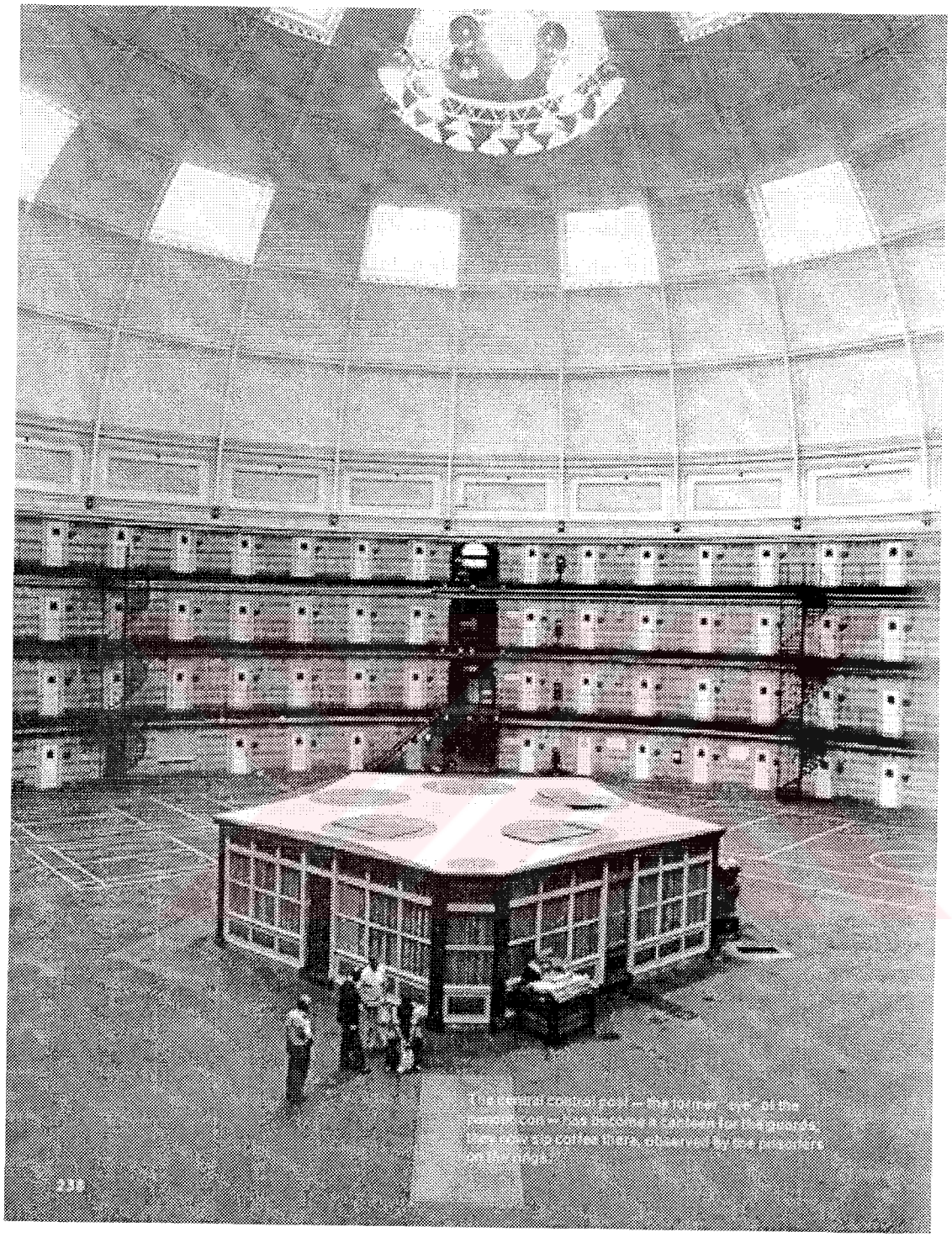


Fig. 4.1. Interior view of original situation of the Arnhem Koepel Prison,
Source: Rem Koolhaas and Bruce Mau. S,M,L,XL. New York: Monacelli Press, 1996: 238.

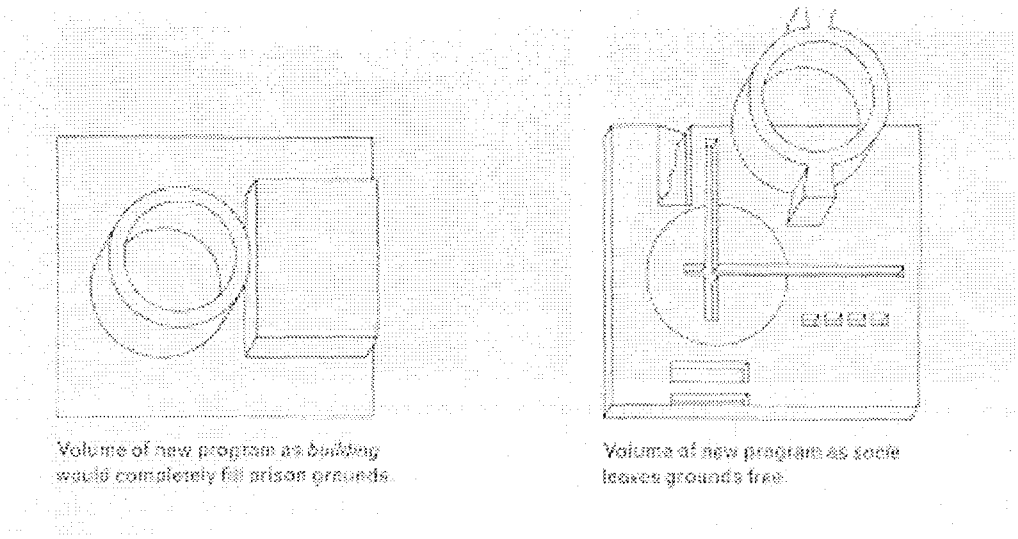


Fig. 4.2. The conceptual scheme for the "re-vision" project
Source: Rem Koolhaas and Bruce Mau. S,M,L,XL. New York: Monacelli Press, 1996: 242.

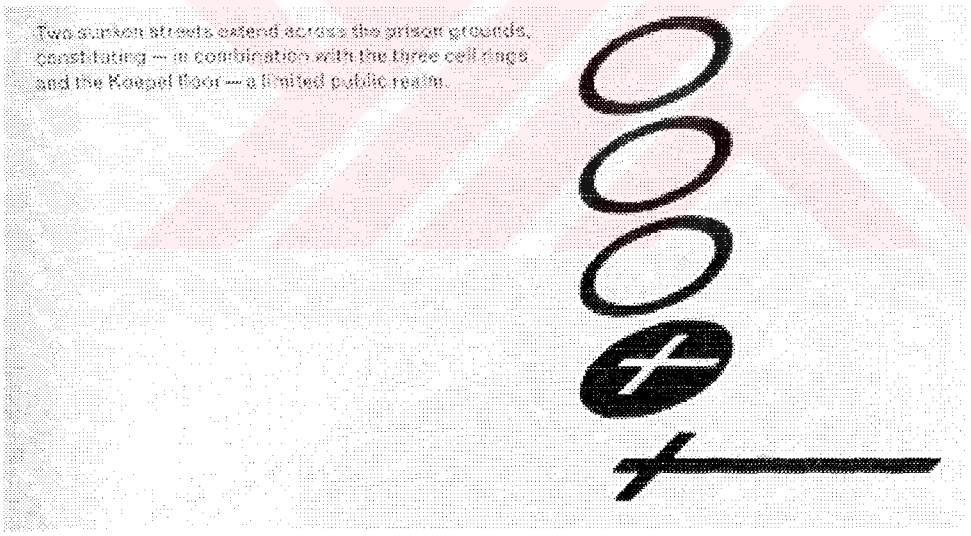


Fig. 4.3. The conceptual scheme for the "re-vision" project
Source: Rem Koolhaas and Bruce Mau. S,M,L,XL. New York: Monacelli Press, 1996: 245.

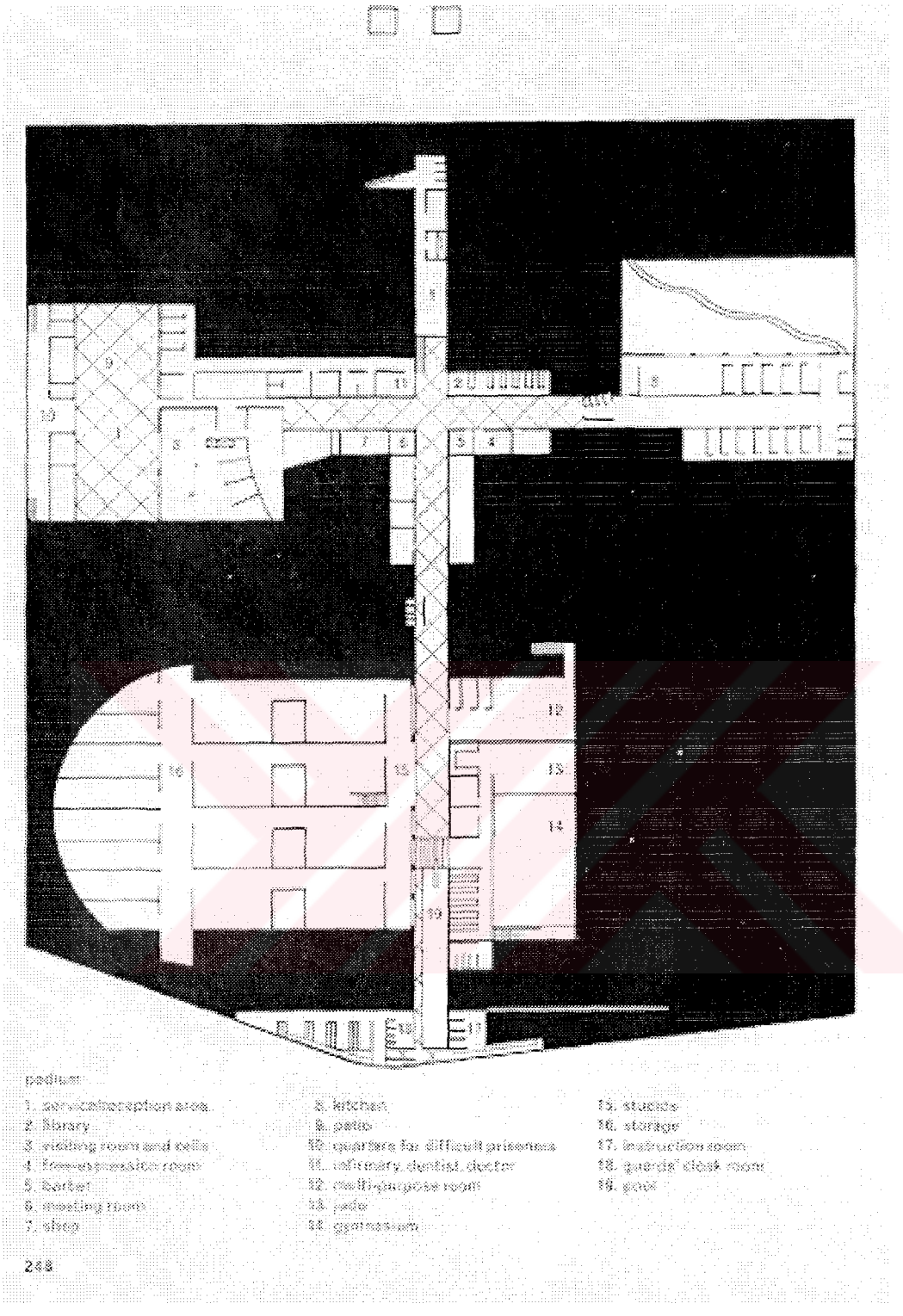


Fig. 4.4. Plan of the "re-vision" project of the the Arnhem Koepel Prison
Source: Rem Koolhaas and Bruce Mau. S,M,L,XL. New York: Monacelli Press, 1996: 248.

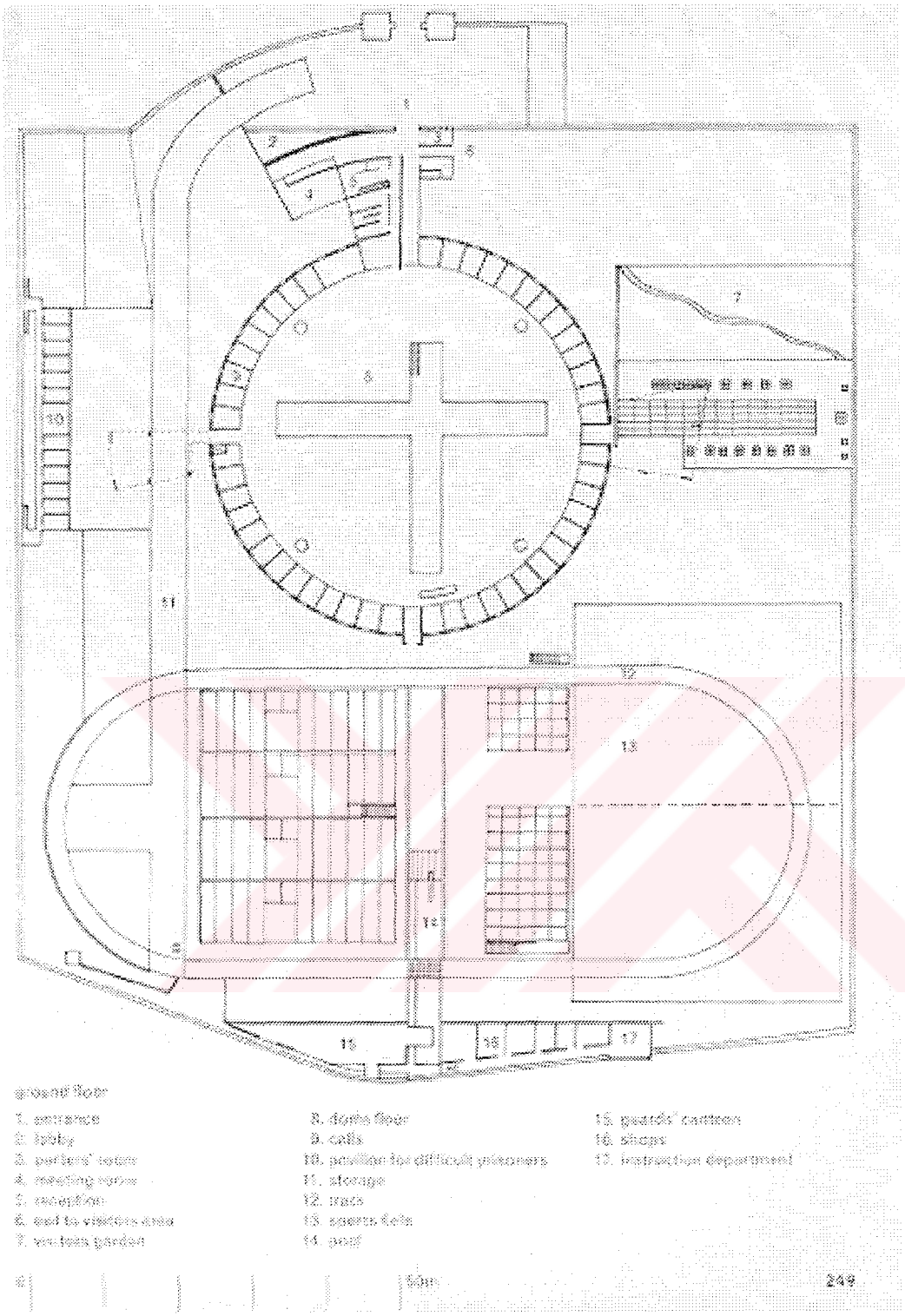


Fig. 4.5. Plan of the "re-vision project of the Arnhem Koepel Prison.
Source: Rem Koolhaas and Bruce Mau. S,M,L,XL. New York: Monacelli Press, 1996: 249.

4.1 Center / Periphery

With this project, Koolhaas finds the medium to alternate the system of surveillance present in the Panopticon through the geometry of the circular plan of the scheme. OMA reconfigures the centralized optical scheme of the Panopticon relevant to their thoughts concerning the center and the periphery. The omittance of the central watch-room provides that the useless tension in the panoptic scheme is turned into a space that relatively carries more freedom and less solitary confinement.

In the Arnhem Koepel "re-vision" project, by removing the central watch-room OMA has changed the strict structure of the panoptic system. This has resulted with the transformation of the center – periphery relationship of the interior space. Although this project does not change the basic function of imprisonment, architecturally it transforms the overall scheme by which power is exercised.

OMA has proposed rooms for social activities along the sunken street that is in the shape of a cross. OMA's intention was to replace the inspection-room with this street. With this proposal, OMA has interrupted the visual construction of the initial panoptic design, in which the optical system depended on the assumed visual interaction between the inspector at the center and the prisoners at the periphery. However, since the inspectors themselves did not inspect from the watch-room but strolled around in the intermediate space between the cells and the watch – room, this indicates that the panoptic system was no longer of use and that the centrality of vision had to be re – questioned.

In its spatial context, the relationship between center and periphery is an issue that has been discussed with the constructions of organizational spaces and the exercises of control in the practice of disciplinary architecture in general. Some main objectives such as the efficiency of the workspace, productivity, and good workmanship have not changed. However, the means by which authority controls their subworkers and relevantly the relationship between control and the objects of control have changed.

> The first model of this control through surveillance, efficiency through the gaze, order through spatial structure, was the military camp. Here total organization and observation were possible. The functions performed here were limited, but the model worked; and later it spread to the construction of grand urban schemes, working class housing projects, prisons, schools, and so forth. On a broad scale, the model of the military camp provided control through hierarchy and observation. (Dreyfus: 1982: 157)

As it is explained by Nan Ellin, who is a historian of urban architecture, the presence of panoptic architecture and its successive refinements constitute a metaphorical model to understand the change in architectural practice and the resulting architectural spaces. Ellin further emphasizes that in the Eighteenth Century visibility was utilized through disciplinary technologies by elites for the exercise of biopower (Ellin: 1996: 148). In this period, the exercise of power was for the state, a means to penetrate into the body of the common person and this became a widely used process to scientifically explore and control these people. This method of visualizing became a strategy that was applied in many fields from medicine, to education, penology, or even town planning.

> By the nineteenth century, this visibility was enhanced by the redevelopment of European cities with long, wide and straight boulevards and strategically placed monuments and housing for the bourgeoisie. As disciplinary strategies have been progressively refined to the present, visibility of the ruled has continued to increase, but that of the rulers has decreased. (Ellin: 1996: 148)

This was a rational achievement for the state and its success lied under the invisibility of this power, such as in the Panopticon, where the inspector does not let himself be seen to the prisoners. As Foucault explains, the reason for this is the fact that "[p]ower is tolerable only on the condition that it masks a substantial part of itself. Its success is proportional to its ability to hide its own mechanisms" (Foucault: 1976: 86). This was exactly the principle of the exercise of power in the Panopticon, where the source of power could not actually be visualized. What was fascinating for the prisoner actually, was that reality could, by no means be visualized at all. The inspector gave hints of his presence with his shadow, but at the same time never let himself be seen by the objects of his gaze. However, from the Enlightenment to the present, this balance of visibility has changed, especially, since sovereignties have left their rules to democracies. The strict governmental structure of sovereignty has broken down to the equalitarian liberal system of democracy; therefore, the exercise of power has transformed in a parallel way. Thus, the change in the structure of government has effected the exercise of power, and the character of disciplinary space.

Ellin explains that one of the changes in the exercise of power is that it has been applied in a wide range of fields and in different methods other than the visionary method in the Panopticon since the Eighteenth Century. Ellin further states that one of the examples of the modern use of disciplinary space is in the field of regional planning. This example is of five new cities that were built in the outer suburbs of Paris in France. These cities were built to house the working class of this city. The primary intention was to de-densify the inner regions of Paris and to create a more pleasant and homogeneous environment through revolutionary strategies (Ellin: 1996: 148). This example of the exercise of power, however, organized by the state or local authority was a reversal of the panoptic principle, since the intention was to disperse the density of the city to small nodes that belonged to private people, instead of localizing around an authoritative node of the state.

As stated by Ellin, another change in the exercise of power is that it is no longer a tool only of the state or of an institutional authority. Disciplinary mechanisms have become instruments of common life, and therefore, are applied widely in many fields and even in every day life. Ellin adds that a relevant example, again in the urban scale, is of the private sector. According to Ellin, this example, accomplished by the private sector, was of the movement of the headquarters of business corporations to suburban regions in the United States. These corporations created for themselves "office parks" or "corporate campuses" to allow for themselves, better control and management over their working forces. Ellin further states that this was part of the formation of the "edge cities" which later became a contemporary issue for architectural theory, especially for congested cities in Europe (Ellin: 1996: 148). This example, where we see the exercise of power practiced by private corporations instead of the state, constitutes a shift of the exercise of power. This shift is from the

state to private enterprise. This transformation is also a consequence of democracy, where the individual also has the right to form his own disciplinary space. Therefore, it is understood that the exercise of power is no longer just a tool of the state or of institutions. Thus, the exercise of power is an issue that has broken through from the bonds of sovereignty and has spread within the freedom of democracy. Additionally, in this example we see a de-centralization of the city as a disciplinary space. As the city de-centralizes, alternative centers appear, such as these "corporate campuses" which de-densify the city and weaken the exercise of power in the city center (Ellin: 1996: 148).

Koolhaas also explains the transformation of the understanding of the center as source of the exercise of control. Koolhaas states that the presence of the center is dependent on the contributive structure of the periphery (Koolhaas: 1996: 1248 – 1249). According to the art historian Rudolf Arnheim the power of a single center is to be weakened by the forces of other centers that are exerted from the exterior (Arnheim: 1988: 2). Koolhaas agrees with Arnheim's words and further claims that as long as identity is centralized and power is exercised from a specific point, the periphery is enslaved to the center (Koolhaas: 1996: 1248 – 1249).

> Identity centralizes; it insists on an essence, a point. Its tragedy is given in simple geometric terms. As the sphere of influence expands, the area characterized by the center becomes larger and larger, hopelessly diluting both the strength and the authority of the core; inevitably the distance between center and circumference increases to the breaking point. In this perspective, the recent, belated discovery of the periphery as a zone of potential value – a kind of pre-historical condition that might finally be worthy of architectural attention – is only a disguised insistence on the priority of and the dependency on the center: without center, no periphery; the interest of the first presumably compensates for the emptiness of the latter. (Koolhaas: 1996: 1248 – 1249)

According to Koolhaas the strength and the potential growth of the center extends its overall capacity, which is nevertheless confined to a single point (Koolhaas: 1996: 1248 – 1249). Koolhaas, with his words states the tension and pressure that is caused by the power of the center and the urge to break free from its powerful hold.

> Conceptually orphaned, the condition of the periphery is made worse by the fact that its mother is still alive, stealing the show, emphasizing its offspring's inadequacies. The last vibes emanating from the exhausted center preclude the reading of the periphery as a critical mass. Not only is the center by definition too small to perform its assigned obligations, it is also no longer the real center but an overblown mirage on its way to implosion; yet its illusory presence denies the rest of the city its legitimacy. (Manhattan denigrates as "bridge-and-tunnel people" those who need infrastructural support to enter the city, and makes them pay for it.) The persistence of the present concentric obsession makes us *all* bridge-and-tunnel people, second-class citizens in our own civilization, disenfranchised by the dumb coincidence of our collective exile from the center. (Koolhaas: 1996: 1248)

As a solution for this dilemma of the center the previous examples of the "corporate campuses" can be given as examples. As a result of the tension and pressure caused by the city center, de-centralization is observed as a response in society. Entities, such as regional districts of institions and corporations that overgrow the capacity that the center can control, in time search for means of breaking free from the concentric power of centrality. These properties of circular geometry are also

present in the Arnhem Koepel Prison. The problematic situation of the central exercise of power, is an issue that Koolhaas intends to solve with the "re-vision" project, where Koolhaas removes the watch-room and places a sunken garden. Thus, the panoptic space in the Arnhem Koepel Prison has been "de–centralized and has been deprived of its panoptic character.

De-centralization is not only seen in the structure of society and the prison's specific architecture. It is also seen in the use of historical references. According to Mirzoeff, Foucault's emphasis in his studies, on reading history has led historians to evaluate history through themes instead of concentrating on certain objects, periods or authoritative structures of the state or certain institutions (Mirzoeff: 1995: 12).

> A history of visual culture needs to organize its subject-matter around themes, rather than individuals; periods, rather than nation states; and to reconsider who and what should receive the focus of our attention. This entails a re-evaluation of the history of the discipline itself and it requires a new approach to art history writing. Such a history should not privilege any one form, medium, practitioner or style. Instead, it seeks to understand the constitutive parameters of any discourse of visual representation, what is included and what must be excluded. (Mirzoeff: 1995: 12)

Jonathan Culler, who is a contemporary theorist adds that what Foucault has presented is "not History or Reality (as opposed to language) but *histories*; not accounts of what the 'real' conditions were at a particular moment" but histories of terms, techniques, categories that have created discourse and social transformation (Culler: 1988: 57 – 68). According to Mirzoeff this will lead to a de-centered history that is not related to only one context but is concentrated on interrelated contexts of different periods that are joined by one theme. Thus, history will be evaluated not in the linear course of time, but in the interconnectedness of culture (Mirzoeff: 1995: 12). This is a result of the cease of the state model of society and the rise of democracy, since the history of the state has lost its importance. History and the exercise of power have to be evaluated on de-centered grounds.

> I think it is somewhat arbitrary to try to dissociate the effective practice of freedom by people, the practice of social relations, and the spatial distributions in which they find themselves. If they are separated, they become impossible to understand. Each can only be understood through the other. (Ellin: 251)

According to Ellin, since society and space have become de-centered, the grounds on which discussions will be founded should be evaluated according to connecting and separating theme.[1] Ellin adds that "what is interesting is always interconnection, not the primacy of this over that, which never has any meaning" (Ellin: 1996: 251). Therefore, the practice of power in the Panopticon should be understood together with the repression and the expectation of freedom of the people in this disciplinary space. The alteration of the optical technique in the Arnhem Koepel provides freedom and transparency of its disciplinary space as seen in the "re-vision" project of OMA Thus, this freedom, which is also a freedom of vision, provides self-confidence and therefore, maintains self-control, instead of unsanctioned behavior for the individual's body.

Ellin states that as a result of the de-centralization of society and of the individual's ability to control himself, the exercise of power has no direct source or address in the contemporary situation,

since it is not of any single institution or in a specific form directed to a specific subject (Ellin: 1996: 149). "This exercise of power, therefore, is in the first hand mostly unnoticed, whereas the common individual is aware of the possibility of the exercise of such a power."

The multiplicity of the points of view, the de-centralization of space and the disguise of power, result with a sense of place-lessness. This is the result of the absence of a stable, fixed, organizing point, such as the inspection tower in the Panopticon, or the city center in the urban context.

> As the expression and exercise of power has become less and less visible over the last few centuries, its influence is more difficult to discern. And to resist. Whereas the plaza –or place (in French)- was the quintessential public space until the nineteenth century, today's place-lessness renders the exercise of power more elusive. It is everywhere and nowhere, assumed ubiquitous, or alternatively, assumed absent. (Ellin: 1996: 148)

Ellin states that the "place-lessness" of today is the physical model of the de-centralization of society, such as in the example of the cease of the activity of publicly gathering in the plaza. This de-centralization of society and space can also be seen as a result of the network society which will be further explained in this study (Ellin: 1996: 148).

One reason for the de-centralization of disciplinary space is the fall of "the terrorizing dark space." As it was seen in the elaboration of the transparency present in the Panopticon, the central watch-tower was actually a darkened spot which was the source of fear for the prisoners. As Foucault stated, in the Eighteenth Century, together with Enlightenment came the image of fear in the form of "darkened spaces, of the pall of gloom which prevents the full visibility of things, men and truths" (Foucault: 1980c: 153). Bentham in his design of the Panopticon brought the paradigm of "universal transparency" that could only function together with the unknown darkness of the inspection tower.

> The moment that saw the creation of the first "considered politics of spaces" based on scientific concepts of light and infinity also saw, and within the same epistemology, the invention of a spatial phenomenology of darkness. (Vidler: 1992: 169)

The reason of this darkness was the inherent omnipotence of the gaze. Bentham had transformed the absolutist gaze that was present in the Orthodox Church into darkness in the Panopticon. However, as it has been stated, the paradigm of this darkness and the intended "universal transparency" constituted a problem in the functioning of the Panopticon.

4.2 From "Surveillance" to "Control"

The main problems of the Arnhem Koepel Panopticon could have been solved, however, by the manipulation of its internal quality. The massive space that exists may seem to be a waste, but it is again this space that provides its break from its own limitations.

> The strongest argument to preserve the Koepel is the quality of its interior (remnant of the "luxury" criticized in 1882): "at first it breaks, then

> embraces, and then comforts." Extravagant, useless, theoretical, exaggerated, monumental: a "waste," but also a space that gives pleasure and that, through its essential excess, enables the decentralized surveillance culture that is now its intangible asset. (Koolhaas: 1996: 242)

In OMA's "re-vision project, the "hypermonumental" space that exists in the Arnhem Koepel Prison has become a medium for exercising power, other than the exercise of surveillance in the initial panopticon. With the removal of the inspection room and the de-centralization of the interior space with the insertion of the sunken street, a new system for exercising power has been introduced. According to Koolhaas, freedom is maintained by the flexibility of the "re-vision" project and this flexibility is sustained by the "hypermonumental waste of space" in the Arnhem Panopticon. This points to a significance between traditional and contemporary architecture: the "deterministic coincidence between form and program" which modern architecture is based on, no longer has the purpose of justifying an "abstraction like "moral improvement" but a literal inventory of all the details of daily life" (Koolhaas: 1996: 239 - 240).

> Flexibility is not the exhaustive anticipation of all possible changes. Most changes are unpredictable. Bentham could never have imagined the present use of the Koepel. Flexibility is the creation of margin – excess capacity that enables different and even opposite interpretations of uses. Because Bentham's ideological purity could only be realized at the cost of spatial surplus, the Koepel is such a margin. New architecture, lacking this kind of excess, is doomed to a permanent state of alteration if it is to adjust to even minor ideological or practical changes. (Koolhaas: 1996: 240)

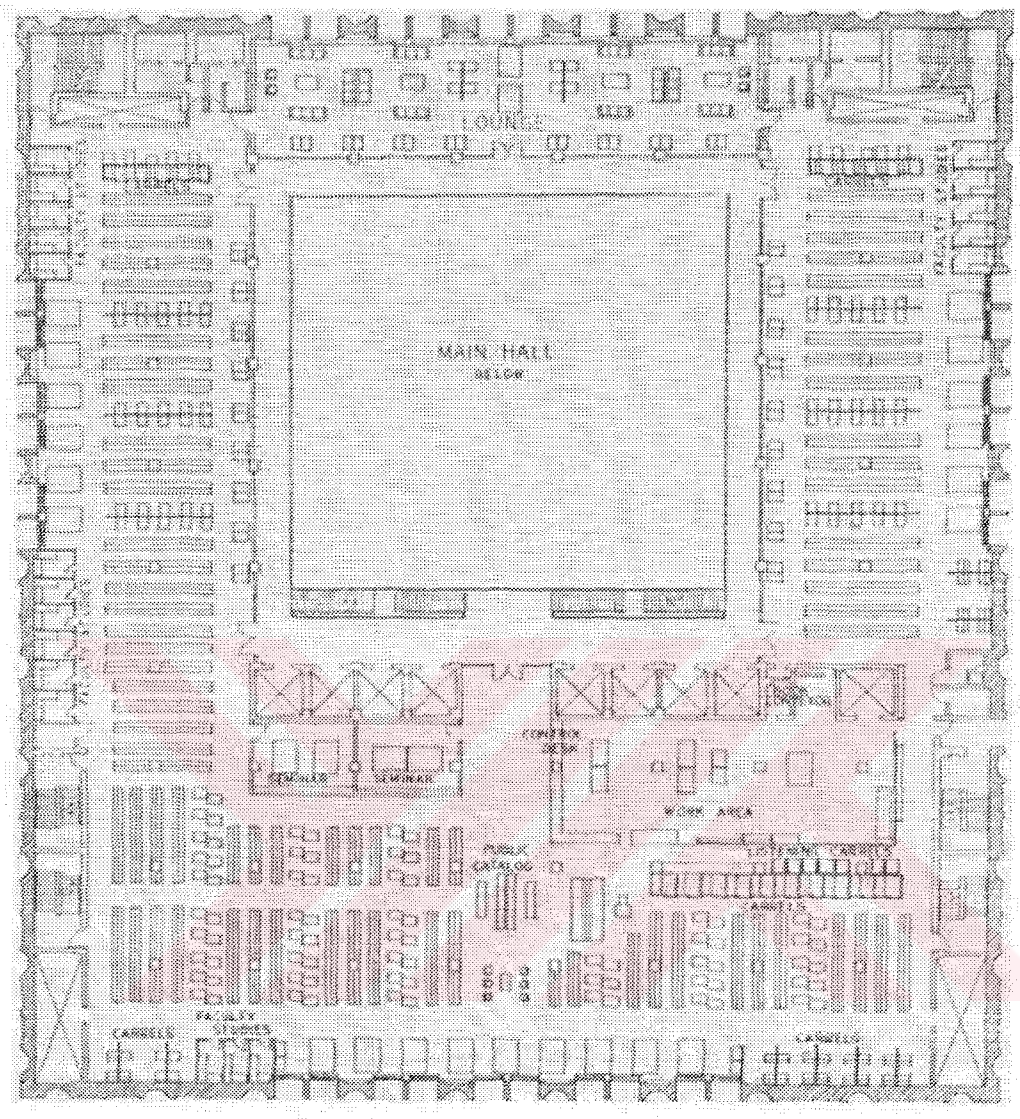
Koolhaas explains that the "spatial surplus" present in the Arnhem Panopticon provides the possibility of the "re-vision" project and the association of new disciplinary technology into the old system. Thus, the body continues to exist in the margin of the Arnhem but in an alternative disciplinary space (Koolhaas: 1996: 240). This alternative disciplinary space, however, does not carry the same properties with the initial design. The "re-vision" project unlike the panopticon has been deisgned for the specific condition of the Arnhem Koepel with its problems. Thus, this project is flexible within itself, and specific to its own condition. Despite the fact that this project was not constructed it has an economy within itself, since OMA has collected the initial program that was scattered on the site and they have reformed this building for its new system of control. Therefore, this project has become an ecomomical transformation of a malfunctioning system.

Despite the freedom maintained by OMA, discipline is present, but not exercised through such a strict optical system as in the original Panopticon. The absolutist gaze in the disciplinary space of the "re-vision" project is exercised by the prisoner and the inspector at the same time. Every person controls himself and, therefore, controls others. This is achieved by the loosening of the restricting spaces of the Panopticon. In the Arnhem Koepel Prison "re-vision" project, the dark space is demolished and replaced with a controversial space of light, where every aspect of this space is seen by everyone similar to the use of the "void" in modern disciplinary space, which is later explained by Ellin. The center, the fearsome watch-room is replaced with the joyful space of social activities. Thus, territorial workspace is no longer only controlled by institutional authority. Additionally, the

understanding of the workspace has also changed, since the inter-relation between the center and periphery has shifted and the aspect of central inspection has been replaced with self-control. The whole system of control has changed as a result of the introduction of the system of self-control.

Ellin explains that in examples of architecture of the Twentieth Century, the principles of disciplinary space are applied differently, regarding the fundamentals of the panoptic space that Bentham introduced to prison design. According to Ellin, the central inspection tower of the Panopticon appears in the form of a void in the center of many buildings today. As claimed by Ellin, the use of the void, besides providing light and a feeling of a smooth, flowing space, "also serves to discourage unsanctioned behavior" (Ellin: 1996: 149). Ellin gives the example of the Bobst Library for the use of the void in architecture. This library was designed by Phillip Johnson and Richard Foster for New York University (fig. 4.6, fig. 4.7).

Fig. 4.6 Architect's model of the Bobst Library.
Source: Robert H. Muller and Charles F. Gosnell. "The Bobst Library", Library Buildings: Innovation for Changing Needs. Chicago: American Library Association, 1972: 35.



Floor plan of even-numbered floors, Bobst Library

Fig. 4.7 Floor plan of the even-numbered floors of the Bobst Library.
Source: Robert H. Muller and Charles F. Gosnell. "The Bobst Library", Library Buildings: Innovation for Changing Needs. Chicago: American Library Association, 1972: 36.

Robert Muller, who is an architectural historian and critic, explains that this building is significant with its internal atrium, which rises through twelve stories to the roof "bringing light and a sense of openness and space to the interior" (Muller: 1972: 37).

Ellin explains that the void refrains the individual from stealing or misusing books (Ellin: 1996: 149). Therefore, the library user is obliged to control himself, since this space provides that other people who are using the library have the possibility of seeing the person who is misusing books. The strict enclosures of space are replaced by the break of the physical barriers and the presence of the void. In other words, space is provided by fluidity with the absence of the solid walls. Consequently, the ability to see is not constrained to a specific person. This is also an example of a space where power is exercised through control instead of surveillance, since users of this space are forced to control themselves without the presence of an inspector.

> Contention about the limits of privacy and surveillance is not new, but the terms and stakes of the central questions are rapidly being redefined. Isolated hermits can keep to themselves and don't have to keep up appearances, but city dwellers have always had to accept that they will see and be seen. In return for the benefits of urban life, they tolerate some level of visibility and some possibility of surveillance – some erosion of their privacy. Architecture, laws, and customs maintain and represent whatever balance has been struck. (William Mitchell: 1995: 159)

The self control of the user of such a space is a must of modern life, where the individual has to maintain his own balance between publicity and privacy, between being seen or not seen. The individual is forced to restrict his own behaviors, not before a continuous gaze that belongs to an inspector but before an "anonymous gaze" which may belong to anyone at any moment. This gaze is anonymous because it does not belong to a specific person, it can be a coincidental gaze that belongs to any other person who is present in the same space, at any time.

When "surveillance," as an institutional principle, is of concern, such as in the Panopticon, the centralization of the space becomes critical. The reason for this is that the inspection tower is at the center and the exercise of power is carried out from this specific spot in this specific building. For the Panopticon, there is the possibility of only one viewpoint at the center. However, when "control," as a contemporary institutional principle, is of concern, it is seen that space is de-centered to provide multiple viewpoints from an indefinite number of spots.

Similarly, this is also seen in the previous example of the "office parks", where in the regional scale, city centers are de-densified. The center of the city is shifted to the edge, where "edge cities," are formulated. Thus, the modern society has no one specific center (Ellin: 1996: 148).

The disciplinary space of the Panopticon was in the course of change too. However, this does not mean that Bentham's Panopticon changed itself. This prison design has become an archetype. What has changed is the means by which disciplinary power is utilized in space. The transformation is seen in the way the power of knowledge streams through society and disciplinary space.

In a situation similar to the change in the elaboration of perspective as a method of visual construction, the manipulation of disciplinary space has also changed in character since Bentham's Panopticon. Bentham's Panopticon as an archetype can only be evaluated as a whole, similar to the perspective as a method. However, what I call as transformation in this study is the change in social tendencies that reflect upon disciplinary space. According to Deleuze, the social change, in which disciplinary space is evaluated, should initially be understood. Certainly, the exertion of power still exists in society, but in a different form. The evolution of the Panopticon was handled in parallel to the evolution of disciplinary societies, which were directed by the power of the state. However, in the contemporary situation, disciplinary societies such as those ruled by sovereignty, in which the Panopticon was formulated, are no longer relevant. Deleuze calls the type of society which came after sovereignty: "the society of control" (Deleuze: 1992: 3 - 7)

Deleuze explains that the emphasis of the arrival of the "the societies of control" indicates that "the societies of surveillance," which Foucault studied, have come to an end. According to Deleuze, "[t]he disciplines underwent a crisis to benefit of new forces that were gradually instituted and which accelerated after The World War II: a disciplinary society was what we no longer were, what we had ceased to be" (Deleuze: 1992: 3).

> We are able to analyze the panopticon because we are no longer securely contained within it, or more precisely, because the panopticon is no longer the model of power. The result is not, however, a brave new world. Surveillance has changed its character, but it has scarcely disappeared. Many of the tasks in industry and commerce that formerly required disciplinary control of the entire body are increasingly being performed by computers and robots. (Mirzoeff: 1995: 10)

The further development in industrialization and the urge to increase production have shown that the working conditions become more profitable if the worker is granted a greater degree of autonomy. Mirzoeff states that "[n]ow, rather than being observed from without we monitor and observe our own bodies" (Mirzoeff: 1995: 10). Therefore, it can be said that there is a shift from a "society of surveillance" to a "society of control".

> Perhaps even more importantly, the world is no longer divided by secure geographical frontiers, demarcating the developed from the underdeveloped, the 'Free World' from the 'Communist Bloc', Europe from its Others, and so on. The geopolitics of the Cold War have been replaced by a fluid and indeterminate field of power relations, in which the nation state no longer plays the dominant role. Furthermore, the postcolonial world is no longer directly under the sway of the Western powers, producing a marked sense of dislocation among Western political elites and electorates alike. (Mirzoeff: 1995: 10)

According to Mirzoeff, the de-territorialization of institutional space and even the state is another important of that shift. Mirzoeff further states that geographical borders do not carry importance anymore, since the flow of power is not bound to any spatial limit. He adds that this is especially seen as a character of countries governed by democracy and has even increased in effect after the fall of the "Communist Bloc" where the notion of the "other" existed. For this dual condition of "self" and "Other" to exist there had to be two centers on the world. However, after the end of the

geopolitics of the Cold War, this dual presence of "us" (U.S.A.) and the "other" (U.S.S.R.) which is similar to the dual presences in the Panopticon, ended. Mirzoeff additionally states that this de-centralization impelled power to flow freely, for there were no longer any dominant centers that pulled or dispersed the force of this power. Since then power flows through borders and the period of "globalization" has arrived (Mirzoeff: 1995: 11).

> The societies of control are less to administer and more effective than the repressive panopticon. But, as Foucault repeatedly emphasized, power is never simply repressive. It is exercised, not owned. That is not to say that there are no directions to power, nor that it is uncontrollable, but that each mode of power brings with it both new forms of resistance and new modes of possibility. It is possible for genuine gains in individual or social freedom to occur within a system of power. (Mirzoeff: 1995: 11)

The exercise of power through dual presences, in the Panopticon, certainly was the reason for a repressiveness of the prisoners and most probably of the guardians. The cause of the repression of the prisoners can be explained by the power exerted on them. However, the situation of the guardian is different. The guardian is repressed by his absence in the total scheme.

The repression of the bodies, whether the prisoner or the inspector is directly related to the struggle caused by the exercise of power present in the Panopticon. In the "technique of spatial occupation" in this scheme, the prisoner's struggle is to gain his subjectivity, and the inspector's struggle is to gain his presence and visibility. For both of them, the Panopticon contains the power of taking away their identities, and thus, causes repression.

> Space, in contemporary discourse, as in lived experience, has taken on an almost palpable existence. Its contours, boundaries, and geographies are called upon to stand in for all the contested realms of identity, from the national to the ethnic; its hollows and voids are occupied by bodies that replicate internally the external conditions of political and social struggle, and are likewise assumed to stand for, and identify, the sites of such struggle. Techniques of spatial occupation, of territorial mapping, of invasion and surveillance are seen as the instruments of social and individual control. (Vidler: 1992: 167)

Struggles of identity and subjectivity repressively exist in the present condition of the Arnhem Koepel Prison. Vidler states that the present technique of control in the Arnhem Panopticon imposes onto the inspector a role of being absent in his territorial space in the watch-room. Additionally, the prisoner is repressed under the central gaze, which continuously suppresses his subjectivity. According to Anthony Vidler, what Koolhaas brings into the Panopticon is a "replicate of external conditions of political and social struggle" by the manipulation of the problem of transparency (Vidler: 1992: 167). OMA creates a layer of a model of the contemporary disciplinary techniques applied in the contemporary society. Therefore, the darkness and the absolutist gaze in the center of the Panopticon, as a work space is "crossed out" and an all-transparent work space is provided, where there are no longer any dark spaces exterior to the individual subject.

4.3 "Universal Transparency" and the Problem of Dark Spaces and Light Spaces

Another demand that had to be considered in the Arnhem Koepel Prison was the "living rooms" where the total group of prisoners –two hundred at most- could be gathered together in small groups, forming the "ersatz families" that "present-day insights" claimed would restore their damaged social abilities (Koolhaas: 1981: 41). Instead of horrifying applications of surveillance and dark spaces such as in the inspection room, the prisoner is introduced with realities that are actually a part of everyday life. Koolhaas states that "[t]he same relative freedom that now exists in the dome will be extended across the two streets. In this way, essential contrasts that define life outside -such as indoors/outdoors, home/work- are reestablished inside the prison" (Koolhaas: 1981: 41).

These dual realities that are expressed by Koolhaas, replace the horrifying existence of presence/absence, and of being seen/ unseen in the Panopticon. The unhuman technique of inspection in the Panopticon is reversed into an actual technique of rehabilitation through the manipulation of the vast interior, where spaces for gathering are inserted into the darkness of the center. Moreover, spaces for facilities of the gathering of small groups are placed on the outer wall of the Panopticon to break through from this confining interior. Thus, "living rooms are oriented toward the landscape beyond the walls" (Koolhaas: 1981: 41). Additionally, the arbitrary circulation of the interior of this prison is reconciled efficiently with four staircases between the floors of cells and the ground floor. These staircases provide the prisoners to proceed in a sequentially from their cells to the social spaces in groups (Koolhaas: 1981: 41). This develops a human environment where the prisoners are deprived of everyday interactions with other people and with the environment.

> Through the connections inside the dome – four spiral staircases – different groups recruited from the total prison population can be formed easily at different times of the day, on the basis of randomness, shared interests and freedom of association. (Koolhaas: 1981: 41)

Bentham's Panopticon can here be assumed as a scientific model of a prison, a type of machinery that makes the observation and rehabilitation of the individual legible in a specific space through a "pure vision". "Pure vision" is maintained through transparency in panoptic space, which is the rehabilitative, "hygienic space" that Bentham intended on achieving. According to Vidler, this transparency, by which the Eighteenth Century scientist examined the body, was one of the aspects of space, which was carried into modern space by architects (e.g. Le Corbusier) in the Twentieth Century (Vidler: 1992: 168).

> In the elaboration of the complex history of modern space following the initiatives of Foucault, historians and theorists have largely concentrated their attention on the overtly political role of *transparent* space – that paradigm of total control championed by Jeremy Bentham and recuperated under the guise of "hygienic space" by modernists led by Le Corbusier in the twentieth century. (Vidler: 1992: 168)

However, OMA does not conceive this "hygienic space" as an artificial institutional body that is equiped with instruments and details that contribute to inspection, but as space that provides the

optimum conditions for the prisoners to live in a healthy and humane environment. Therefore, the prisoners would continue their own "occupational therapy" through social interaction and personal rehabilitation.

Panoptic space contained a transparency of vision that enabled the penetration of information. Every aspect of the prisoner was visible to the inspector; there were no curtains that provided privacy to the viewed object but only transparent enclosing barriers in the form of railings. Thus, this transparency has been the basis for modern space by providing the penetration of vision, air and space, and by preventing the concealment of truth. As stated by Vidler, this sense of pure vision was proceeded through what Bentham called "universal transparency" (Vidler: 1992: 168).

> Transparency, it was thought, would eradicate the domain of myth, suspicion, tyranny, and above all the irrational. The rational grids and the hermetic enclosures of institutions from hospitals to prisons; the surgical opening up of cities to circulation, light, and air; the therapeutic design of dwellings and settlements; these have all been subjected to analysis for their hidden contents, their capacity to instrumentalize the politics of surveillance through what Bentham termed "universal transparency." (Vidler: 1992: 168)

However, the transparency that panoptic space was based upon was a one way transparency. For the inspector, transparency was present, as for the prisoner what was present was darkness. The absolutist gaze in the Panopticon was one thing that could not be a part of this transparent space. How can a space be defined as transparent when the presence of the inspector is based on his invisibility? As it has been explained, the gaze in the central watch-tower that primarily belongs to inspector, is actually an absolutist gaze. Who is watching and who is being watched is not known. There is, in the Panopticon, an omniscient eye which is unknown to the prisoner. As emphasized by Vidler, this "universal transparency" of Bentham's Panopticon, which relies on the objectness of the prisoner's subjectivity, is no longer a principle intended to be for these inspected people, on the contrary it is against this (Vidler: 1992: 167).

> Equally, space is assumed to hide, in its darkest recesses and forgotten margins, all the objects of fear and phobia that have returned with such insistency to haunt the imaginations of those who have tried to stake out spaces to protect their health and happiness. Indeed, space as threat, as harbinger of the unseen, operates as medical and psychical metaphor for all the possible erosions of bourgeois bodily and social well being. (Vidler: 1992: 167)

The effect of transparency in panoptic space can be further explained through "lightness" and "darkness" as factors, which help to define this space. For the inspector the prisoners are in light, however for the prisoners the inspector is in darkness. Darkness is for the prisoner, the means of identifying their fears of the unknown, for it is darkness that haunts and does not give hints of what is to happen. Therefore, the space in the central watchtower is a source of fear for the prisoner: it is the fear of the unknown, similar to that fear of the omnipotent existence of God in the Orthodox Church. Moreover, this transparency, which provides a "pure vision," has meant much to modernity, since it is seen as a rational basis for the relationship of the individual in space with its environment.

> Modernity has been haunted, as we know very well, by a myth of transparency: transparency of the self to nature, of the self to the other, of all

> selves to society, and all this represented, if not constructed, from Jeremy Bentham to Le Corbusier, by a universal transparency of building materials, spatial penetration, and the ubiquitous flow of air, light, and physical movement. (Vidler: 1992: 217)

However, the metaphor of the transparent space present in the Panopticon does not seem to be the ideal transparency that was intended in modern space. The reason for this is the character of the transparency present in the Panopticon. The transparency present in panoptic space is actually a transparency working only in one direction. This one-way transparency present in the Panopticon was carried into modern space without the awareness of the darkened space, where institutional power was exercised through.

When Bentham's principles of "universal transparency" are re-evaluated, it is conceived that his method of surveillance in the Panopticon does not totally correlate to his theories. Bentham's ideas, which concentrate on "universal transparency", on the contrary, find shape in the Panopticon as a method of the exercise of power.

> Bentham is both that and the opposite. He poses the problem of visibility organized entirely around a dominating, overseeing gaze. He effects the project of a universal visibility which exists to serve a rigorous, meticulous power. Thus Bentham's obsession, the technical idea of the exercise of an 'all-seeing' power is grafted onto the Rousseauist theme which is in some sense the lyrical note of the Revolution. The two things combine into a working whole, Rousseau's lyricism and Bentham's obsession. (Foucault: 1980c: 152)

The contemporary theorist James Donald claims that "what motivated Bentham's commitment to 'universal transparency' as the paradigm and mechanism of governmental power was an Enlightenment terror of darkened spaces, the illegibility of men and things" (Donald: 1996: 83). He also states that in modern space or in the modern metropolis, the uncanny arises in the disturbing distinction between "the city as object of government and the city as frame of mind" (Donald: 1996: 83).

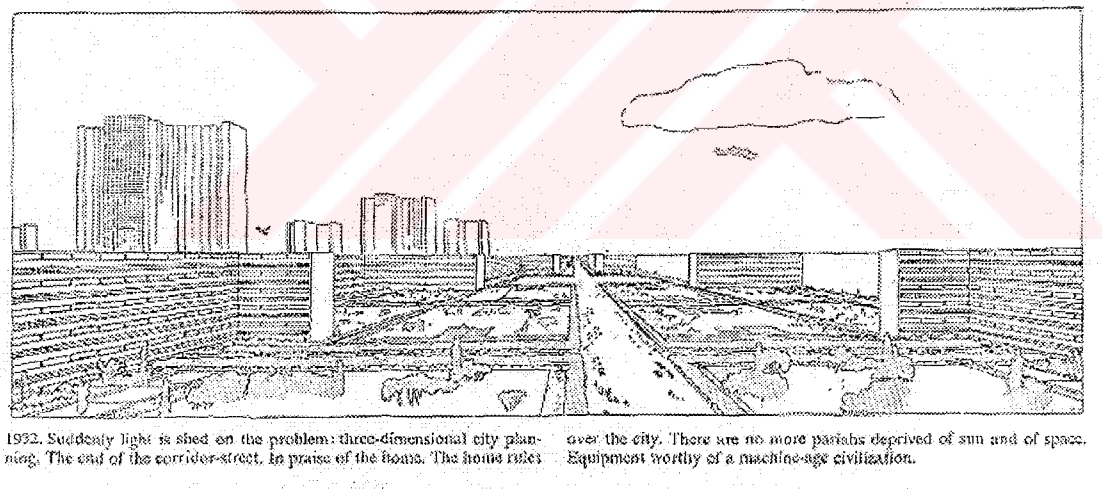
> The aim of the tradition has always been to eradicate the domain of myth, suspicion, tyranny and, above all, the irrational. The logic of this politics of transparency, surveillance and social pedagogy has become familiar since it was meticulously unpicked by Foucault. And yet, suggests Anthony Vidler, even Foucault may have underplayed the other side of the paradox. He failed to spot how intractably the fear of darkened spaces and the opacity of the social marked Enlightenment conceptions of space. (Donald: 1996: 83)

Certainly, this is a crucial point where the metaphor of the Panopticon has been carried into modernism with unexpected results of the struggle inherent in disciplinary space. Although Foucault had previously drawn attention to the significance in the positioning of the inspector as an absent subject in panoptic space, he had not depicted the paradox between Bentham's "universal transparency" and the paradox of the presence of darkness in the obscure watch-tower. However, "universal transparency" was later taken as a metaphor for modern disciplinary space. As explained by Donald, the significance of the disciplinary space in the Panopticon, does not lie in the fact that

"power works through surveillance", but in the "extent to which the pairing of transparency and obscurity is essential for power to operate" (Donald: 1996: 83).

> It is in the intimate associations of the two, their uncanny ability to slip from one to the other, that the sublime as instrument of fear retains its hold – in that ambiguity that stages the presence of death in life, dark space in bright space. In this sense, all the radiant spaces of modernism, from the first Panopticon to the Ville Radieuse, should be seen as calculated not on the final triumph of light over dark but precisely on the insistent presence of the one in the other. (Vidler: 1992: 172)

In his design of the previously mentioned project of *The Radiant City (La Ville Radieuse),* Le Corbusier studies the means of utilizing technology at the most in a model of urban housing (fig. 4.8). Le Corbusier states that the housing model he proposes is in the form of high rise blocks and that these blocks provide economical, efficient and comfortable residential units for the family. However, Le Corbusier's principles that form the basis of this design resemble to those in the Panopticon. Le Corbusier intends to design a city, in which every aspect of the design is deterministic. As conceived from his words, "The Plan must rule," his design becomes a machine, in which the individual becomes an object of this technologically equipped space (Le Corbusier: 1933: 7, 8 - 9). (fig. 4.9). Beatrix Colomina explains that every aspect of Le Corbusier's design, including the environment, contributes to the comfort of man with respect to technology. Even the fenestration in his design is conceived as tools to see through, whereas ventilation is provided by machines (Colomina: 1994: 323).



1932. Suddenly light is shed on the problem: three-dimensional city planning. The end of the corridor-street. In praise of the home. The home rules over the city. There are no more pariahs deprived of sun and of space. Equipment worthy of a machine-age civilization.

Fig. 4.8 A perspective drawing of The Radiant City.
Source: Le Corbusier. (1933), The Radiant City: Elements of a Doctrine of Urbanism to be Used as the Basis of our Machine-Age Civilization. London: Grossman Publishers, 1967: 204.

Fig. 4.9 An axonometric drawing of The Radiant City.
Source: Le Corbusier. (1933), The Radiant City: Elements of a Doctrine of Urbanism to be Used as the Basis of our Machine-Age Civilization. London: Grossman Publishers, 1967: 206.

Le Corbusier's innovative incorporations of technology in *The Radiant City* both comfort the individual in a technologically "enlightened" space and at the same time deterministically encloses one in a cell of a "machine – like" apartment flat. The individual's presence is dominated by the technological functioning of space, since this machine-space of Le Corbusier is a construction which subjectively operates to hygienically confine the individual as an object. Thus, the individual is subjected into darkness by this space, in which the body is darkened by the presence of technology.

As a consequence of the repression of the body to this source of fear, generates a dual existence of light and dark. The body acts according to the forces that come from "outside" and a repression occurs "inside," therefore, there is a continuous struggle between the space of lightness and the space of darkness. Vidler states that the body has become its own exterior, as its cell structure has become the object of spatial modeling that maps its own sites of immunological battle and describes the forms of its antibodies (Vidler: 1992: 167 – 168).

According to Vidler, "outside," even as the spaces of exile, asylum, confinement, and quarantine of the early modern period was continuously spilling into the "normal" spaces of the city. Vidler adds that the "pathological" spaces of today menace the clearly marked out limits of the social order. Additionally, Vidler explains that in every case "light space" is invaded by the figure of "dark space," on the level of the body in the form of epidemic and uncontrollable disease, and on the level of the city in the person of the homeless (Vidler: 1992: 167 – 168).

Vidler states that this darkness need not only be a factor lying outside of the body. External factors such as the "all seeing gaze" may constitute forces, which awaken the internal fears. In other words, the power exercised from the darkness disturbs the darkness that is already inherent, that is unknown in the body. Therefore, light space and dark space are inter-located, continuously stimulating each other. Vidler additionally explains that these "domains" [2], which were "clearly enough distinguished in the nineteenth century," or in other words, "the realms of the organic space of the body and the social space in which that the body lives and works," can no longer be separated from each other (Vidler: 1992: 168).

> Forces always come from the outside, from an outside that is farther away from any form of exteriority. So there are not only particular features taken up by the relations between forces, but particular features of resistance that are apt to modify and overturn these relations and to change the unstable diagram. And there are even savage particular features, not yet linked up, on the line of the outside itself, which form a teeming mass especially just above the fissure. This is a terrible line that shuffles all the diagrams, above the very raging storms. ...But however terrible this line may be, it is a line of life that can no longer be gauged by relations between forces, one that carries man beyond terror. For at the place of the fissure the line forms a Law, the "center of the cyclone, where one can live and in fact where Life exists par excellence." (Deleuze: 1988: 339)

With the invention of the Panopticon, the prisoner was obliged to act according to an inspecting gaze, and it is this inspecting gaze that brought to the objectified subject the controversial power to stabilize himself. Geoffrey Batchen states that this was possible through the balance that the prisoner established on that special line. This balance is between the outside forces and the repressions

that occur inside (Batchen: 1998: 277). Maybe it is this line that altered the panoptic space of the Arnhem Koepel.

> Remember that, for Foucault, panopticism is not just an efficient piece of prison design but also 'the diagram of a mechanism of power reduced to its ideal form.' His own work returned again and again to such diagrams of power, always finding within them a peculiarly modern configuration of human subjectivity. Positioned as both the subject and object of knowledge, this modern human is, he says, an undoubtedly 'strange empirico-transcendental doublet.' As an effect of and vehicle for the exercise of power/knowledge, the modern human subject is, in other words, a being produced within the interstices of a continual negotiation of virtual and real. (Batchen: 1998: 277)

The subjectivity of the prisoner in the Panopticon is continuously repressed under the factors of this perfect diagram of disciplinary space. Inside/ outside, real/virtual, visible/invisible, and present/absent, all of these dual relationships constitute the panoptic diagram as well as establishing the basis of its transformation. The Panopticon can only be taken in the context of the presence of light space and dark space together, since it is this, which supports the disciplinary space of this building. According to Vidler, as it has been done in Koolhaas's "re-vision" project, the boundaries of the original Panopticon have to be altered to achieve a pure transparency, where both inspector and prisoner are able to envision the "truth". Vidler adds that since it is not possible in Jeremy Bentham's Panopticon, it has to be rationally re-thought.

> Here the limits of Foucault's interpretation of Enlightenment space become evident. Still tied to the Enlightenment's own phenomenology of light and dark, clear and obscure, his insistence on the operation of power through *transparency*, the panoptic principle, resists exploration of the extent to which the pairing of transparency and obscurity is essential for power to operate. For it is in the intimate associations of the two, their uncanny ability to slip from one to the other, that the sublime as instrument of fear retains its hold – in that ambiguity that stages the presence of death in life, dark space in bright space. In this sense, all the radiant spaces of modernism, from the first Panopticon to the Ville Radieuse, should be seen as calculated not on the final triumph of light over dark but precisely on the insistent presence of the one in the other. (Vidler: 1992: 172)

Since Koolhaas breaks the strict boundaries of the Panopticon, there is no longer a dual presence of light and dark, but a presence of publicity and privacy. The body is a subject of both an experience of privacy in his cell and an experience of social gathering in the public spaces provided by the project and by the sense of being watched by others. OMA has altered the system of the Panopticon by introducing the body with a dual positioning of interior and exterior of new disciplinary space. Thus, the body meets the dark space of its interior and the light space of its exterior.

The "re-vision" project of the Arnhem Koepel Prison touches all of these dual positionings by establishing a balance that fulfills the necessities of the body in the contemporary situation. In this project, the body is partially freed from the spatial restrictions, which created an observed object of the prisoner and an absent presence of the inspector. The prisoners and the inspector are, according to this project, each the center of their own gaze, and relatively, the subjects of their own presences.

> It is as if the accelerated speeds, which last only briefly, constituted "a slow Being" over a large period of time. It is like a pineal gland, constantly

> reconstituting itself by changing direction, tracing an inside space but coextensive with the whole line of the outside. The most distant point becomes interior, by being converted into the nearest: *life within the folds.* This is the central chamber, which one need no longer fear is empty since one fills it with oneself. Here one becomes a master of one's speed and, relatively speaking, a master of one's molecules and particular features, in this zone of subjectivation: the boat as interior of the exterior. (Deleuze: 1988: 339 - 340)

4.4 The Positioning of the Body and the Problem of Identity

With the "re-vision" project of the Arnhem Koepel Panopticon, OMA provides that the body, in this territorial space, is optically a part of the disciplinary scheme. As a result of the application of this new disciplinary technology into the Panopticon the individual regains his identity, since he is permitted the freedom of controlling his own body.

This freedom is maintained in the design of this "re-vision" project with respect to certain demands. One of these demands was to "avoid entrapment from the existing structure/prison, and at the same time accept the containment of the existing prison yard" (Koolhaas: 1981: 41). OMA achieved this "dissociation" of freedom and containment by creating exits on the ends of the cross-shaped street, which reached from the center of the dome to the exterior. Thus, the facilities of the Panopticon that exist outside are contained in this space along the street, whereas freedom is provided by the omittance of the central "eye" (Koolhaas: 1981: 41).

According to the project, the prisoners are no longer doomed to solitary confinement, since social activities are maintained on the cross-shaped street. Additionally, the inspectors are no longer confined in the central watch room; the new system permits the guardian to act freely, since there is no more any specific point for an omnipotent central gaze. The reversal of "vision" in the "re-vision" project of the Arnhem Koepel Panopticon is mainly the de-centralization of the central scheme of inspection. Relevant to the previously explained transformation in the understanding of "perspective" as method of depicting scenes onto canvas, the central optical system in the Panopticon has also become a critical issue in this renovation project. Thus, the prisoner is no longer an object of an "all seeing gaze", but a subject of his own control; the prisoner inspects himself and is the center of his own gaze as in Deleuze's statements concerning "societies of control".

> The anxiety of the subject confronted with the "soft" space of Koolhaas's surfaces is then the manifestation of an uncanny based on the newly formulated conditions of interiority and exteriority, where the "ghosting" of the functionalist "interior" on the exterior mirrors not the outward appearance of the subject but its own, now-transparent biological interior. Paranoiac space is transformed then into panic space, where all limits become blurred in a thick, almost palpable substance that has substituted itself, almost imperceptibly, for traditional architecture. (Vidler: 1992: 225)

Within this respect, the subject has the ability to observe himself and to correlate his own presence with others. As explained by Vidler, the restrictions, and thus, the "paranoiac space" of the Panopticon have been upset, and a "panic space" of multiple interaction has been provided by this

project (Vidler: 1992: 225). The reason for this new disciplinary space to cause "panic" is the freedom it permits and the infinite number of external gazes that create sudden internal fears.

Since the late Eighteenth Century, the changes in the disciplinary society concerning the situation of the body, which is subjected to the exercise of power, should be emphasized. The body is the determining factor of the resistance to the power exercised in disciplinary space. The rehabilitation or the scientific observation of the body has been explained as the primary concern of the authoritative power that has been exercised by institutions. Therefore, the intention has been to observe the body as an object in its specific workspace, whether the school, the factory, or the hospital. Thus, whatever the period, the body should be handled in respect of its primary role in its territorial workspace.

> It is difficult to generalize about power in its different modes, but one observation seems venturing here. Systems of power are most susceptible to subversion and modulation in their earliest days of existence before it has become fully clear what changes have occurred. If it is true that the present moment marks one such change, it is not surprising that the body, the prime subject of the society of discipline, should again be a central concern of governments, corporations and intellectuals. The body was and is a key site of that resistance provoked by an exercise of power. In this sense, the body can be seen as a point of resistance between Enlightenment modernism and postmodernism belonging wholly to neither and preventing the complete realization of any regime of power. (Mirzoeff: 1995: 11)

Under this light of disciplinary space, the body's resistance to the exercise of power can be evaluated through its subjective and objective presence.

In the Panopticon, subjects are turned into objects and classified in the panoptic space according to their abnormalities. These individuals are each objects of vision, in the Panopticon, and are displayed according to the Albertian single-point perspective. The reason for this is to view the objects from the best viewpoint, where every aspect of the object is clear and not distorted. If the vision of every individual object were to make sense from a spatially different viewpoint, then the supervision of the prisoners would become difficult to a great extent or merely impossible. Ian Heywood, who is a social critic, states that what is achieved in the Panopticon, is the best viewpoint, where every object is seen in the most appropriate way, equally and without distortion [3]. The intention simply is to see "truth" through a "pure vision" (Heywood: 1997: 122 – 123).

> At a more mundane level, the panoptic system, as a social technology, renders its captured phenomena 'legible', and therefore controllable, by removing them from their living contexts and making them available for scrutiny, classification and organization on the basis of their visible, surface, and in this sense, formal features. (Heywood: 1997: 122 – 123)

The Panopticon, within this context, seems to be a tool of purifying the vision of the individual. This is provided by the "all seeing gaze," in which the intention is to see the individual in the truest manner, with no disturbance. Heywood additionally claims that the individual is deprived of social complexities and placed in the Panopticon as an object. The Panopticon becomes a scientific tool of observing and healing the body (Heywood: 1997: 122 – 123).

The evaluation of space and the schema in which space is visualized have changed through time since Jeremy Bentham's achievements. Changes can also be seen within the respect of disciplinary space and technology, such as the space and technology in society. In the course of this study, the features of Bentham's Panopticon have been related to other fields besides penology and architecture, such as painting and regional planning.

> Architecture and its concomitant theory never constitute an isolated field to be analyzed in one minute detail; they are only of interest when one looks to see how they mesh with economics, politics or institutions. (Wright and Rabinow: 1982: 14 - 15)

The positioning of the subject with its relation to its environment in panoptic space has been explained in the previous section. The situation of the body of the individual in the "universal transparency", which Bentham introduces in the Panopticon, has been evaluated with its reflection in modern space.

> The modernist ideal of the universal subject, represented through transparency and criticized by a more opaque postmodernism, has recently resurfaced in the aesthetic programs of many public competitions, notably those for the Parisian *grand projets*. The participation of such an aesthetic, which inevitably involves reflection and mirroring, in a society of spectacle committed to the suppression of all phenomenological depth, would indicate that the long tradition of anthropomorphic embodiment in architecture has been finally broken, with spatially uncanny consequences. (Vidler: 1992: xi)

It has been expressed that through modernism, disciplinary space has overcome a transformation. These transformations have become apparent through the manipulation of space in certain fields, such as in the occurrence of the notion of "edge cities" in modern regional planning or in the discussion of transparency in modern space. Besides these the understanding of the positioning, or the dis-positioning of the subject has developed.

4.5 The "Re-Vision" of the Arnhem Koepel Panopticon

As it has been explained in the discussions of the panorama and the diorama, the Panopticon has both similarities and differences when compared with these schema. The main point that these optical machinery resemble each other is the spatial configuration, as it has been explained in the previous chapter. However, the Panopticon differs from these schema with the fact that the panorama and the diorama function together with the observer. In the Panopticon this is reversed and the system actually functions with the absence of the inspector. Thus, the inspector cannot find himself in the scheme. This results with the fact that the inspector cannot identify himself in this scheme. This also goes for the prisoner; he has become an object of an external gaze instead of a subject of his own actions and experiences. As a result, this system of surveillance in the Panopticon has caused a problem of individual identity considering both the prisoner and the inspector.

In the previously given example of the Bobst library, this problem of identity that is the result of inspection has been avoided by assigning every individual in that space with the role of "seeing" and depicting instead of "being seen" and "pretending to see" such as the prisoner and the inspector. The individual is no longer a spectacle to be seen and there is no longer a theatrical scene for this spectacle to be displayed. Thus, the role that is assigned to the individual by architectural space is important in this consideration. The role that is provided by the territorial organization of space has to complement the identity of the individual and not to deprive him from his most natural subjectivities.

In the "re-vision" project, the additions find their ideal conditions for their intended functions. The system in the initial panopticon design has provoked its own "re-vision" of both its architectural scheme and its optical system of surveillance. Koolhaas states that the Principle of the Panopticon paradoxically evokes its own reversal in the contemporary situation (Koolhaas: 1996: 237 - 247).

> In less than a century the two principles on which the Koepel was based – centralized monitoring and solitary confinement- have been undone and or even reversed by cultural change. At the same time, the building itself –simply by continuing to exist- has responded to these ideological changes by dismantling the Panopticon Principle and adding complementary facilities. Changes in regime and ideology are more powerful than the most radical architecture – a conclusion both alarming and reassuring for the architect. (Koolhaas: 1996: 239)

According to Koolhaas, the success in this project lies in the way an "architectural solution" resolves the dilemmas of other disciplines and is accepted by authorities (Koolhaas: 1981: 41). The dystopic feature of architecture as an impractical culture-shaping instrument has been resolved with the Arnhem Koepel "re-vision" project.

> The discredited claim for architecture as being directly to intervene in the formation of culture and to achieve, through its crystallization, the resolution of hopelessly contradictory demands –freedom and discipline- was for once vindicated on the edge of dystopia. (Koolhaas: 1981: 41)

According to Vidler, the intention of OMA in this project was not to create confusion out of analogical surveys in linguistics or to find a "true" language through structural semiotics, which has dominated studies of recent years. Similarly, OMA does not "intend to anthropologize its productions with a false mask of humanism, for it affirms the complete independence of image and society" (Vidler: 1992: 196). What OMA does, is to develop a disciplinary space based on the falsification of the character of surveillance in the Panopticon, and on the recent disciplinary technologies which sustain freedom and control.

For OMA, this panoptic prison, which displays wisdom of two hundred years and a century full of experience, with its new layer of modernity is turned into a space that is less definitive than the previous. However, this new disciplinary space does not propose the most appropriate system as the powerful Panopticon itself proved it was not as such. Koolhaas states that "[t]he iconographic deterrence of the old is left intact, saving the new the embarrassment of having either to ignore or express the idea of incarceration, which is incompatible with its aspirations" (Koolhaas: 1981: 41).

Koolhaas explains that what is achieved in the "re-vision" project is a space in which, "the dome represents the dismantled past, its former center crossed out, resting on a podium of modernity" (Koolhaas: 1981: 41). In addition, these are set forth only in the consideration of improving the conditions of the prisoner.

> What is most rewarding about the project is the extent to which diagrammatic, metaphoric, and formal intentions can be made to coincide. Within strict programmatic demands, the metaphor of a new beginning, the idea of culture as a system of paradigms continuously revised and the crossing out of the center, all work both on the most utilitarian and the most conceptual level, and establish a bonding between them. (Koolhaas: 1981: 41)

Koolhaas states that with this "re-vision" project the true ambition of modern architecture: "an architecture that can support and provoke modern conditions" has been regained in the programmatic initiative as a result of the scheme in the Panopticon (Koolhaas: 1981: 41).

OMA, in their "re-vision" project of the Arnhem Koepel Prison, intended on preparing this building to function in the future. Therefore, Koolhaas's project would have this panoptic prison adapted to recent ideology through a series of programmatic "re-visions". Jacques Lucan, who is a critic of architecture, states that the elaboration of this prison constituted a problematic situation. Lucan additionally explains that "in such situations, both historicist and typological doctrine would represent artificial and unacceptable obstructions in a process of continuous cultural transformation that is desirable" (Lucan: 1990: 153).

Moreover, the margin of the existing project is projected further outward from the center so those cells that have been emptied previously are used as larger prison offices. This extension creates a second margin around the existing one, which provokes further growth (Koolhaas: 1981: 41).

Lucan explains that through this design, Koolhaas provided that in this project, past and modernity are related and brought together to mutually exist in the same context. Lucan states that "[o]nly through the concrete projection of these "re-vision"s and their embodiment in tangible modernity can the weight of the past be made tolerable" (Lucan: 1990: 153).

The coexistence of the archetype of Bentham's Panopticon and the necessities of modern space is a crucial feature in this "re-vision" project. Lucan adds that Koolhaas neither neglects the Panopticon's inherent properties nor does he keep away from the touch of modernity (Lucan: 1990: 153).

> Otherwise, the wholesale desertion of the camp of utilitarian architecture opens an exhilarating prospect: that the field of modernity will be abandoned to create a condition where newness will be rare, intervention unusual, imagination shocking, interpretation subversive, and modernity once more exotic ...an era of a new sobriety. (Lucan: 1990: 153)

Therefore, for this project the Panopticon is both an archetype and a part of its own archaeology, which played an important inspirational role in its own transformation. Moreover, this is also seen in the project itself, since Koolhaas has preserved the image of the Panopticon.

It is interesting to see that Koolhaas, in this "re-vision" project has literally "crossed out" the watch room of the Arnhem Koepel with a sunken street which is in the form of a cross.

> On one level – that is, on the level of the pictorial image – this would seem to be no more than liberal "canceling" of the old, panoptical functions of the prison. So the text of the architect tells us: the axis has cut through the all-seeing center, the heart of the disciplinary apparatus has been torn out. The postpanoptical spirit has destroyed the panoptical one. Here we find echoes of a reading of Michel Foucault, whose studies of discipline and power have strongly influenced the politics and strategies of OMA's generation. However, this would be a vulgarization of the appeal made by Foucault to the Panopticon as a physical form. (Vidler: 1992: 194 – 195)

Foucault's studies on disciplinary power have been of much influence to OMA According to Vidler, however, the direct application of the "crossing out" of the inspection room should not be seen as a simple result of the "postpanoptical spirit" destroying the panoptical one according to this influence (Vidler: 1992: 194 – 195). Koolhaas explains that the intention in his manipulation actually is to achieve a layering of ideological instruments by preserving the good aspects of the Panopticon and introducing new aspects of disciplinary space. Moreover, Koolhaas states that this layering is possible through a project of "re-vision". "New construction obliterates what exists: it is loss of memory. But an architecture of "re-vision" can maintain the viable, modify the untenable" (Koolhaas: 1996: 239). Koolhaas visualizes this project within the respect that there is no need to destroy the old with the emergence of new visual technology.

> Revision is only possible where there was vision. Arnhem could be an experiment with a form of renovation that articulates programmatic and ideological change without destroying the building itself. (Koolhaas: 1996: 241)

Besides Koolhaas, for Foucault also it is not objective to see a "pervasive will to power" in every reform in disciplinary space [4]. Vidler adds that the reduction of every act of reform in the name of generalizing this to the exercise of power would be misleading (Vidler: 1992: 195). However, what OMA has done without generalizing any act, is that they have changed the panoptic form of power with the "postpanoptic" form.

> The actual scheme of Bentham's Panopticon in such a prescription is only the enblem or caricature of an all-embracing system of power, institutional from the outside and psychological from the inside. According to this formulation, the act of OMA would simply read as a displacement of one form of power by another; there would be no loss of energy, no effective change, save in the outer form. (Vidler: 1992: 195)

The sunken street in the "re-vision" project seems to be an ideological replacement of the religious cross over the secular tower. According to Vidler, however, this interpretation of this project would not be more than a prejudice of what has been intended (Vidler: 1992: 195). Moreover, as the intentions of OMA are conceived, it is seen that space is organized within the depictions of Foucault on disciplinary space. Therefore, as stated by Vidler, the configuration of the new prison dissolves under the ground floor level and "operates for all the world like a prehistory of the old." Furthermore, Vidler adds that this new organization penetrates into the Panopticon, "for the archaeology of the ruined prison itself" (Vidler: 1992: 195).

The layering of the old and the new in the "re-vision" project of the Arnhem Koepel prison in this context implies that disciplinary space is subjected to a continuous transformation which is induced by the developments of disciplinary technology.

> If prison architecture today can no longer pretend to embody an "ideal," it could regain credibility by introducing the theme of revison as raison d'être. A "modern" prison architecture would consist of a *prospective archaeology*, constantly projecting new layers of "civilization" on old systems of supervision. The sum of modifications would reflect the never-ending evolution of systems of discipline. (Koolhaas: 1996: 241)

The decisions that OMA has developed for the renovation of the Arnhem Koepel, consequently, would justify the necessary modern disciplinary space of the Panopticon, without damaging its own past. Relevantly, this project reveals its own archaeology of its panoptic space and history.

NOTES

[1] Cited in Ellin from Paul Rabinow. (Paul Rabinow. "Interview with Michel Foucault", Skyline. March 1982: 20).

[2] Cited from François Delaporte, (François Delaporte. Disease and Civilization: The Cholera Epidemic in Paris. 1832: 80, in Vidler: 168). Delaporte states that "[l]iving conditions affect two distinct areas, one within the body, the other outside it: organic space and social space. Social space is the space within which the organism lives and labors, and the conditions of existence within that space – living conditions – determine the probability of life and death" (Delaporte: 80).

[3] "The question is not asked as to whether phenomena are not equally or even *more* available for classification, knowledge and power through the application of numerical or algebraic symbols or the kinds of categories with which Aristotle and later Kant were concerned, which are formal in being abstracted from appearances; this strategy was argued for in one version by Plato himself and, as developed by Descartes and others in its more mathematical dimensions and within a somewhat different framework, eventually became a key in the growth of the Enlightenment's disciplinary sciences." (Heywood: 211n)

[4] Cited in Vidler, p. 195. (Anthony Vidler. (1992), The Architectural Uncanny: Essays in the Modern Unhomely. Cambridge, London: MIT Press, 1994.

CHAPTER V

CONCLUSION: "RE-VISION" OF THE "ALL SEEING GAZE"

Bentham, with his theories in penology and his panopticon design contributed to social, industrial and consequently architectural improvements. For Bentham the panopticon was a revolutionary example of architecture designed to achieve the purpose of rehabilitating abnormal persons in the Eighteenth Century. With its powerful scheme of central inspection, Bentham had designed a unique project that, for him, fulfilled his theories of "universal transparency", "fictions", and "economy". Penologically, the panopticon was far more than architecture for Bentham. Thus, the panopticon was a tool to illustrate the new social order for the enlightened society. The new order was illustrated in the architecture of specific projects.

However, recently, the architectural qualities of the panopticon were re-interpreted by a "re-vision" project, the Arnhem Koepel Prison. This prison has been designed by the architectural design office called OMA. In this "re-vision" project, OMA, has not only solved many problems that have appeared in the initial panopticon design, and its internal optical scheme, but also went beyond the social aspects which were based on the transformation taken place in the society. To understand the change in the "re-vision" project, this study had to go beyond architectural analysis to seek for visual and perceptual aspects in representation.

Although a limited number of examples had been produced, visual constructions such as perspective, panorama and diorama formed a base for contemporary discussions on vision, visuality and visual perception.

From the very particular to the most general, the metaphorical presence of the Panopticon has been influenced by social transformation and modernization in such a way that this presence has created an extended discourse built upon the previous in the Eighteenth Century. The Arnhem Koepel Panopticon has been transformed on the grounds of this discourse through a "re – vision" of the "all seeing gaze". The discourse covered a large spectrum starting from Picasso's innovative depictions which have created the means of questioning the perspective similar to the visual discussion of the Panopticon, to the "surveillance society" of the Eighteenth Century that was related to conventional panoptic space and has turned into the "society of control" of the Twentieth Century.

The "re-vision" project of the Arnhem Koepel Prison has provided a framework to reconceive certain features of "disciplinary technology" and "disciplinary space" together with their architectural schema. The development of "disciplinary technology" and its influences on "disciplinary space" had constituted an important discourse in the late Eighteenth Century and is still an issue that carries significance in contemporary society.

Through this study, the significance of the Panopticon, which is the original model of the Arnhem Koepel, has been conceived as a mechanism that unites "knowledge, power, the control of the body, and the control of space into an integrated technology of discipline" (Dreyfus: 1982: 189). The Panopticon a unique architectural model of "disciplinary technology", has been explained as a machine that provides the medium for the exercise of power through the control of vision. As the architectural historian George Baird has stated, Bentham's goal was a unique part of a total social transformation in the late Eighteenth Century. Thus, with the aid of information technology, "architects will find helpful strategies with which to attempt to formulate a deinstrumentalized and reinstituted architecture appropriate to our time" (Baird: 1995: 189 – 190).

Relevantly, Koolhaas's project has provided a contemporary basis for an inquiry of the "disciplinary space" that generates the "all seeing gaze" in the Panopticon. In the course of this study, the character and consequences of Bentham's invention of the "all seeing gaze" have been investigated and re-evaluated through the example of the "re-vision" project of the Arnhem Koepel as a contemporary model of a prison.

The discourse of the late Eighteenth Century was concetrated on the investigation of moral judgement and on the rationalization of the scientific search of providing methods for judgement. Bentham's intention was to achieve the "rationalization of judgement" through a scientific study. As stated by Stephen, "[s]cience, according to him, must rest upon facts" (Stephen: 1900: 241). Bentham accomplished his intellectual studies on the scientific reasoning of "truth". Furthermore, Stephen explains that Bentham's intention was to "[t]ry the experiment" (Stephen: 1900: 241). For Bentham, the emergence of scientific reasoning brought a new sense of visualizing. This was the principle on which Bentham developed his theme of "universal transparency". As a consequence of this theme, "truth" would become clearly apparent with no obstructions. However, in the evaluation of the Panopticon, it has been conceived that the basic principle of its architectural scheme was the "darkened space" at the center. The invisibility of the presence of the inspecter at the center had been maintained by darkness.

Koolhaas in his "re-vision" project responded to the darkness of the watch-tower by "crossing it out" (Vidler: 1992: 197, Koolhaas: 1981: 41). The visual system was no longer the same. The watch-tower had become a tea room in the Arnhem Koepel. Thus, Koolhaas decided to pull down the watch-tower and replace it with a sunken street. The old system had to be cancelled for a new visual scheme to be projected onto the panoptic system of inspection.

Another contribution of the conventional panoptic scheme was the "objectification of the body" and the "dis-positioning of the subject". The central view point in the Panopticon had provided the inspector with the facility to observe the prisoners. However, the manner in which the prisoners

were inspected generated a repressive situation for both sides. Prisoners had become objects of vision as a result of their solitary confinement and the continuous gaze. Additionally, the inspector had become a dis-positioned subject, since the panoptic system functioned within his invisibility. Thus, a problem of identity of the individual was present in Bentham's panopticon.

Koolhaas's scheme in his project of the renovation of the Arnhem Koepel Prison rediscovers the individuality of every person in its space. The "crossing out" of the tower provides that the guards are no longer confined in an invisible presence and that they can display their own identities. Additionally, Koolhaas introduces spaces for social rehabilitation across the sunken street so that the prisoners can interact with each other and individually develop skills. Provided that both the prisoner and the inspector have gained the right to display their identities freely, every person in this space has become the subjects of their own vision. In other words, Koolhaas's intention was to replace the central gaze with a "subject-centered vision" in the Arnhem Koepel Prison.

The emergence of "subject-centered vision" implies that the Panopticon as a machine of centralized gaze has been "de-centralized", since every individual has gained control over his own vision. Thus, with this scheme, Koolhaas has achieved a "de-centralization" of the previously centered "all seeing gaze".

Thus, Koolhaas has achieved the reversal of "vision". His project of the Arnhem Koepel Panopticon is a "re-vision", in the exact meaning of the word. Furthermore, a complete revision has been provided by the experimentation of the architectural space in the strictly configured scheme of the Panopticon. Bentham's invention has provided the renovation of itself with its lack of response to social aspects of modern life. Since the panoptic system of surveillance was no longer functioning, the Panopticon itself required a "re-vision". Thus, for this project the term "re-vision" does not only mean the renovation of the Arnhem Koepel, but also it denotes the reconfiguration of the optical machinery of Bentham's Panopticon, which has influenced many developments of the Enlightenment since the Eighteenth Century.

As Bentham intended, in the Eighteenth Century the spatial experience in the Panopticon has provided its own renovation. As Stephen explains, "the Utilitarian doctrines were worked out with a constant reference to practical applications" (Stephen: 1900: 1). As it has additionally been stated by Stephen, "the traditional has been transformed into empirical" (Stephen: 1900: 52).

Koolhaas created a new layer of vision in the Panopticon, which is a result of the functioning of panoptic space. This new vision, which is born from the old, constitutes a new layer of reason that constructs what Koolhaas calls its own "prospective archaeology" (Koolhaas: 1996: 241).

> A "modern" prison architecture would consist of a *prospective archaeology,* constantly projecting new layers of "civilization" on old systems of supervision. The sum of modifications would reflect the never-ending evolution of systems of discipline. (Koolhaas: 1996: 241)

All of these decisions in the "re-vision" project of the Arnhem Koepel Prison are for the benefit of the body and its humanly living conditions in the guidance of developing disciplinary technology.

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APPENDIX

A CASE STUDY ON THE VISUAL SCHEME OF THE PANOPTICON

The intention in completion of this case study is to understand certain aspects of the optical scheme underlying the exercise of power in the Panopticon. For this case study, I have modeled the Panopticon according to Bentham's depictions in his Panopticon letters (Bentham: 1791).

The following images have firstly been taken from the viewpoint of the inspector (fig. App.1), and secondly from the viewpoint of a prisoner (fig. App.2). The series of images that come next have been taken from three other cameras for depictions from different viewpoints (fig. App.3 – 18). Except for the second image (fig. App.2) and the last image (fig. App. 18), which represents the visual depiction of a prisoner, all other images display the visual conception of the inspector. The last image displays the possibilities of the prisoners sights if the inspection tower did not exist. Additionally, the glowing rays in the images symbolize light rays that enter the inspector's eye. Moreover, these yellow rays are for the emphasis of the observer's direction of view, and the mediation between the inspector and prisoner(s).

As it has been depicted in the series of images, it is especially obvious in the first two images (fig. App.1 – 2) that it is impossible for the inspector to see the prisoners that are exterior to their visual fields. Therefore, it is again impossible for the inspector to see all prisoners at one time. Thus, these images actually explain that the Panopticon does not physically function, but that its performance depends on the fictions that are automatically created by the mythical presence of the watchtower.

Additionally, in the last image (fig. App.18) it is clear that the multiple possibilities of visual interactions is actually a freedom of sight compared to the previous images. Thus, according to this freedom the prisoners become subjects of their own actions and regain their identities.

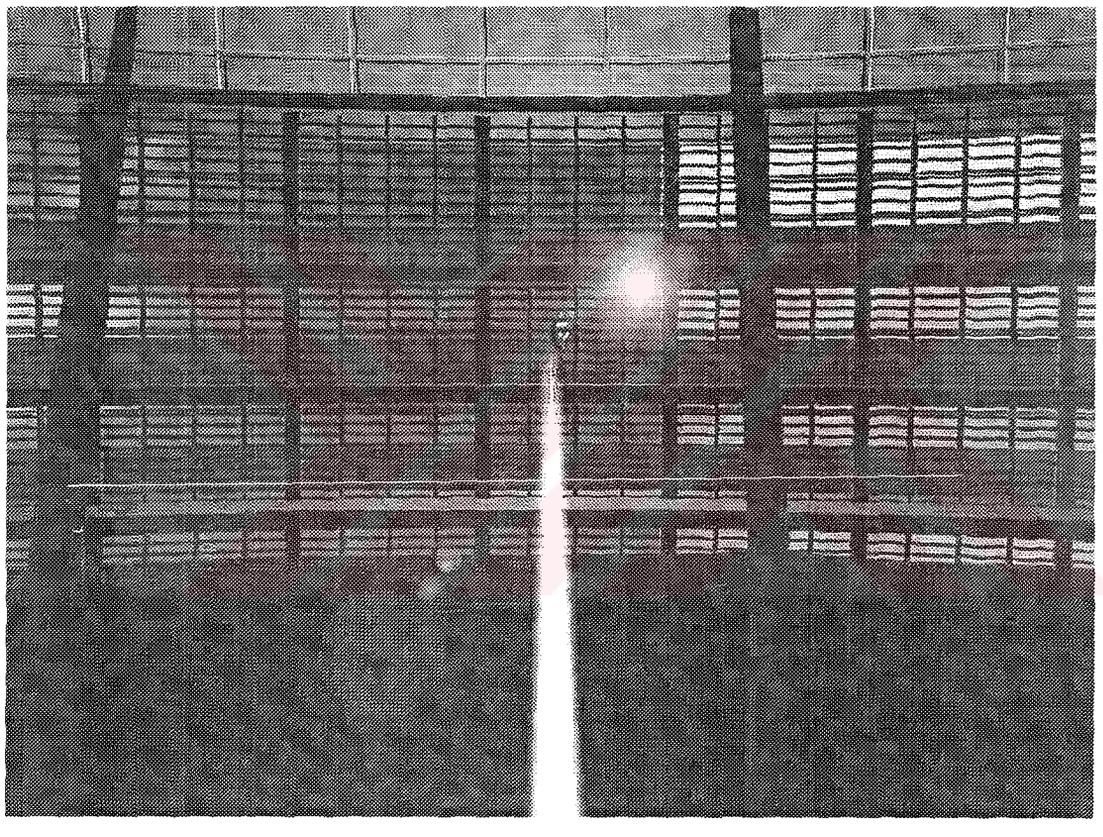

Fig. App.1 A view towards a prisoner from the position of the inspector.

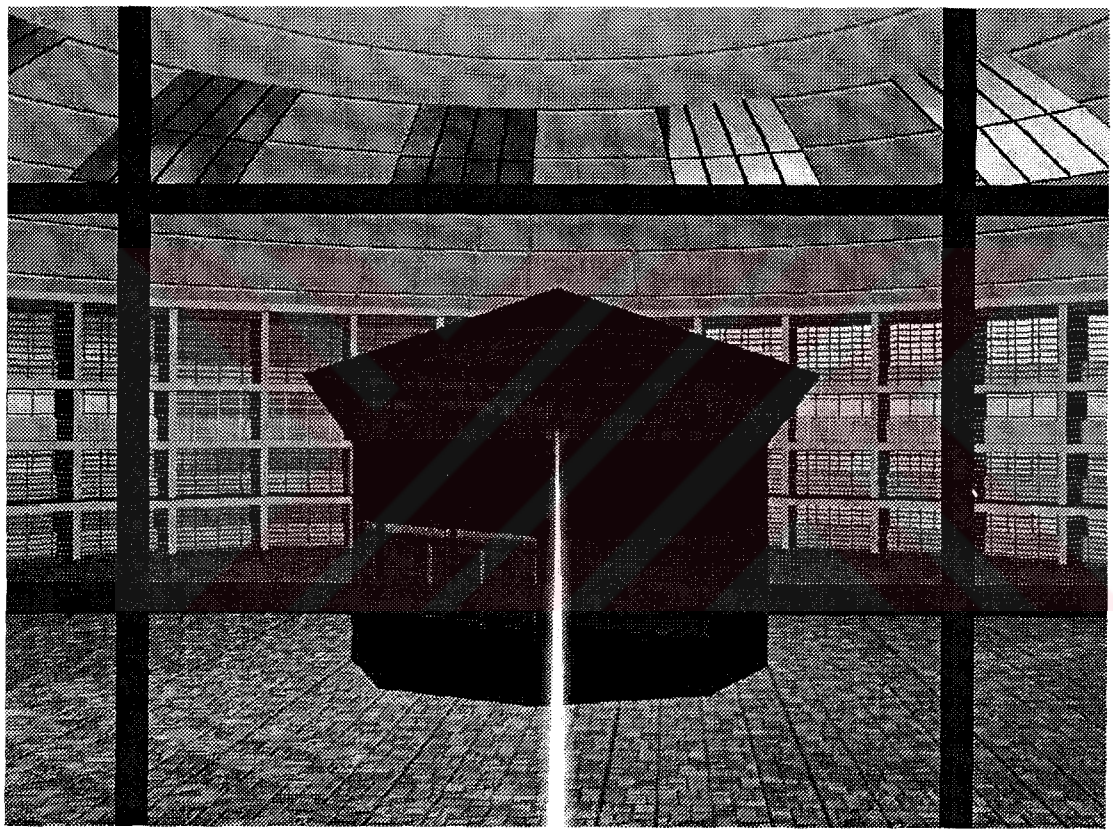

Fig. App.2 A view towards the watchtower from the position of a prisoner.

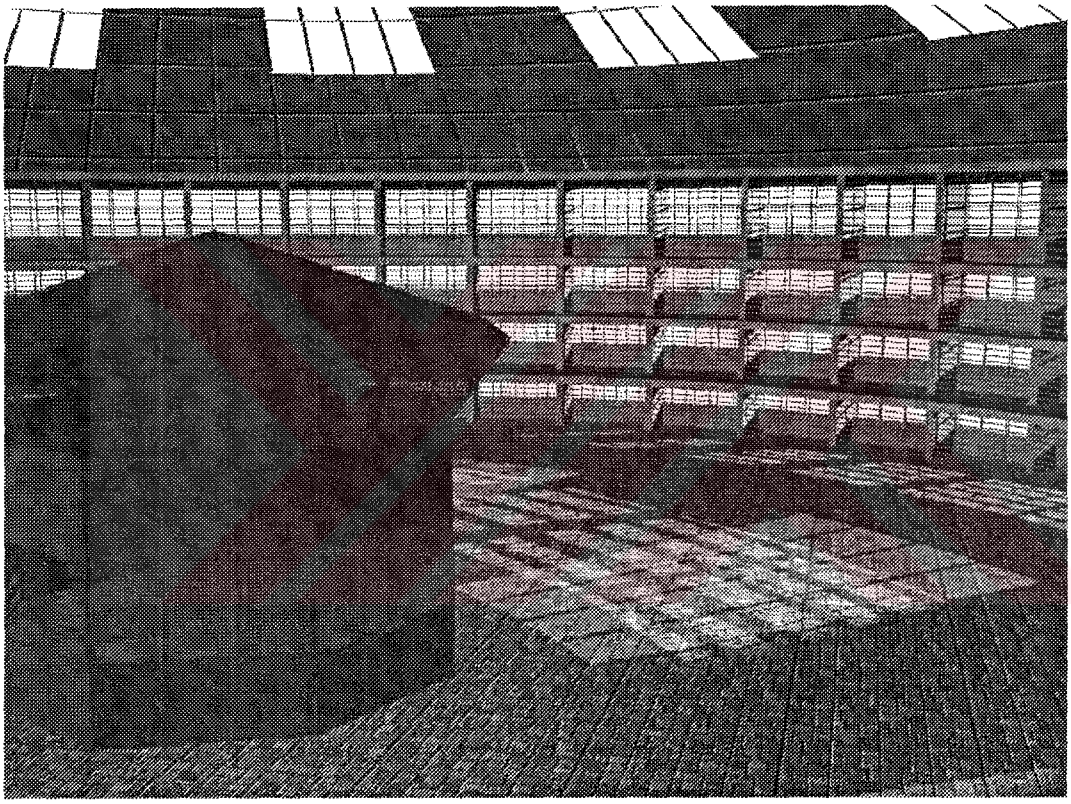

Fig. App.3 A view of the interior of the Panopticon from camera I.

Fig. App.4 A graphical representation of the visual interaction between the inspector and a prisoner.

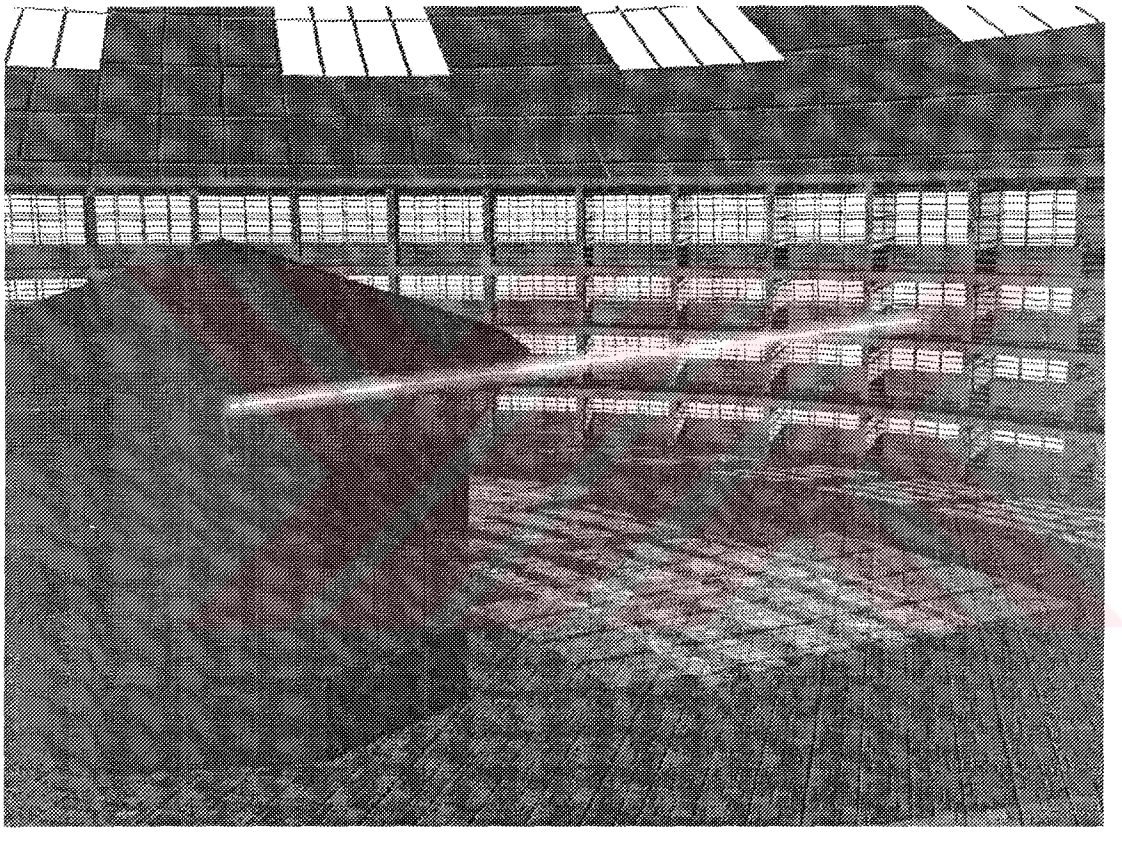

Fig. App.5 A representation of the visual interaction between the inspector and a prisoner in the Panopticon.

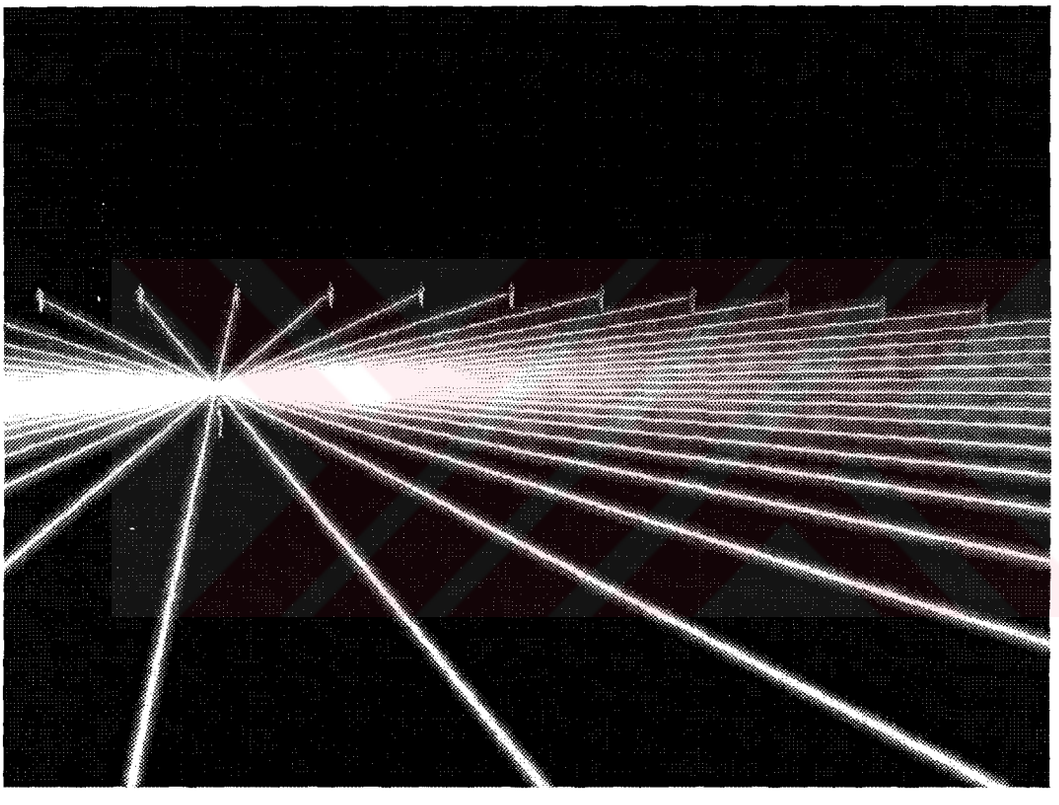

Fig. App.6 A graphical representation of the visual interaction between the inspector and all the prisoners.

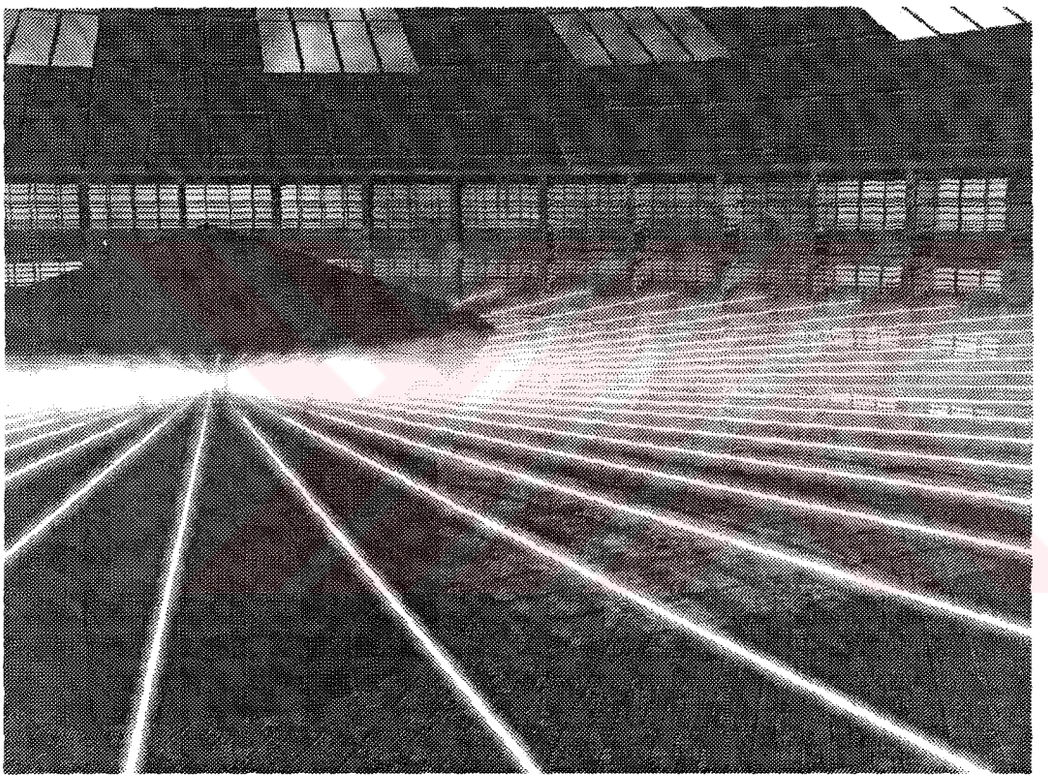

Fig. App.7 A representation of the visual interaction between the inspector and all the prisoners in the Panopticon.

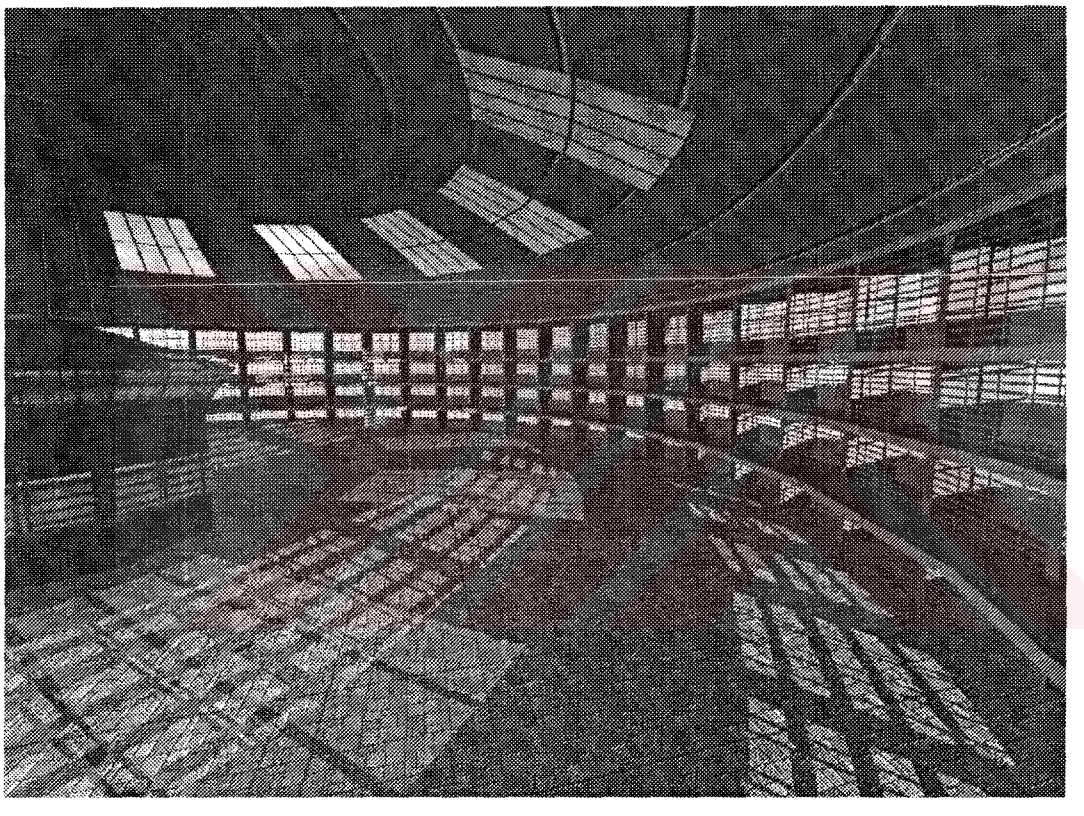

Fig. App.8 A view of the interior of the Panopticon from camera II.

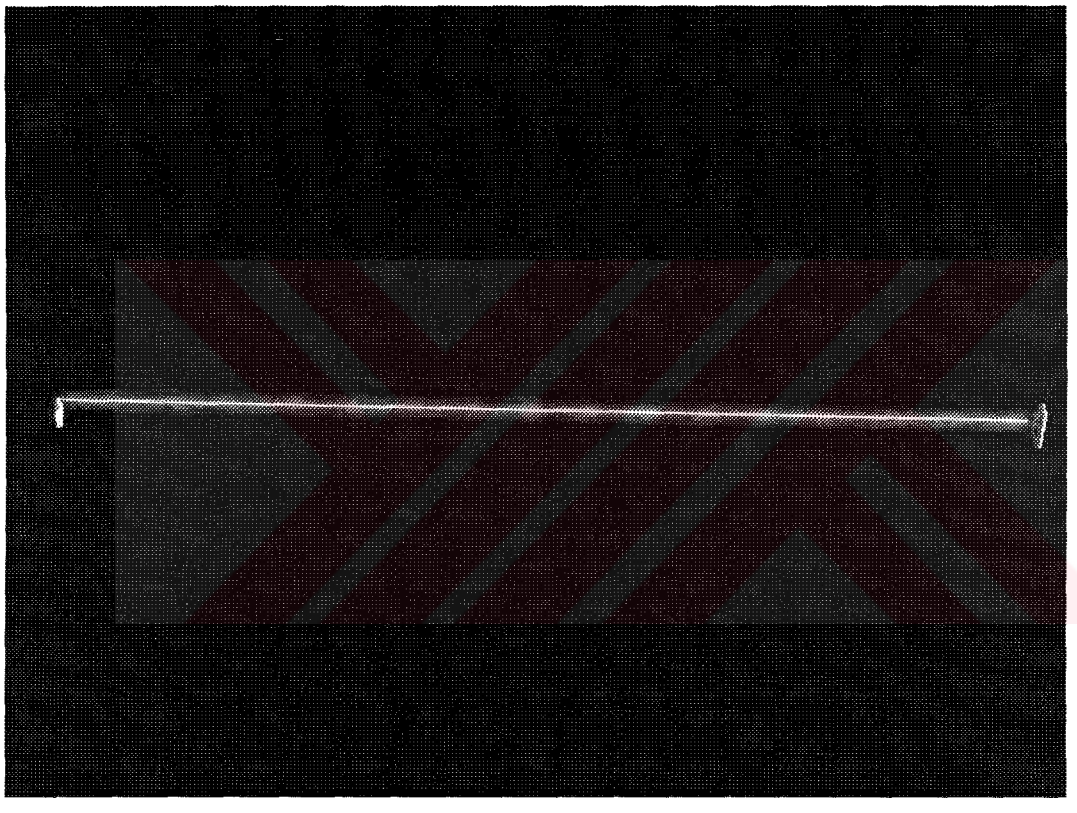

Fig. App.9 A graphical representation of the visual interaction between the inspector and a prisoner.

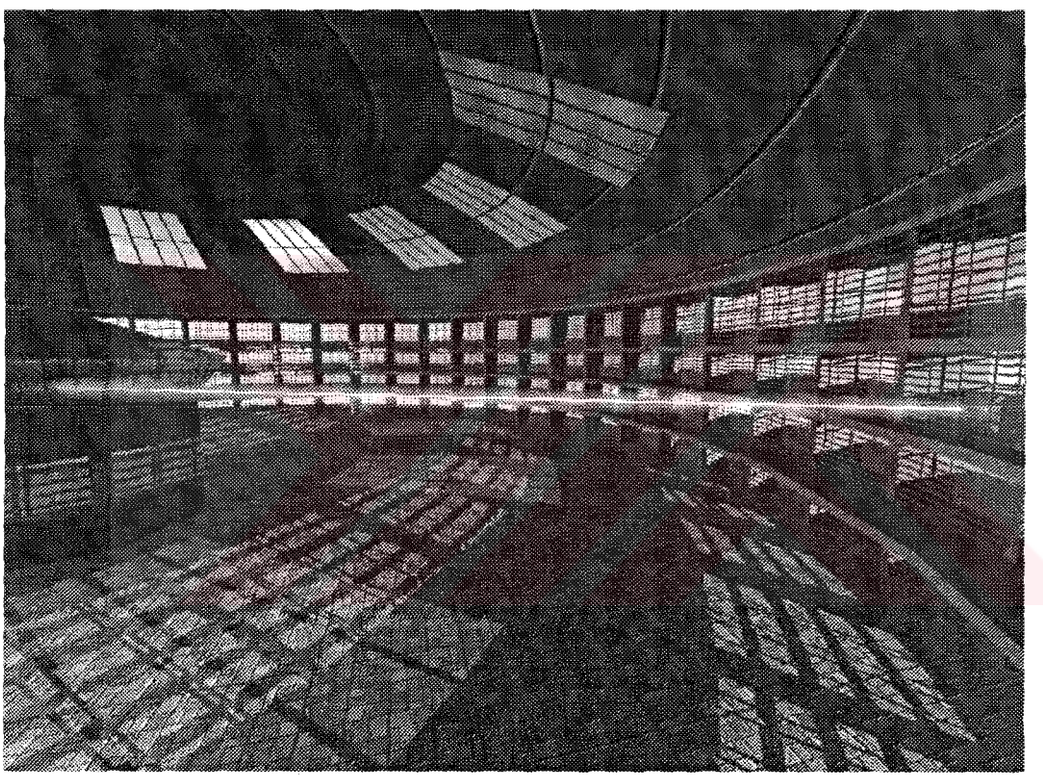

Fig. App.10 A representation of the visual interaction between the inspector and a prisoner in the Panopticon.

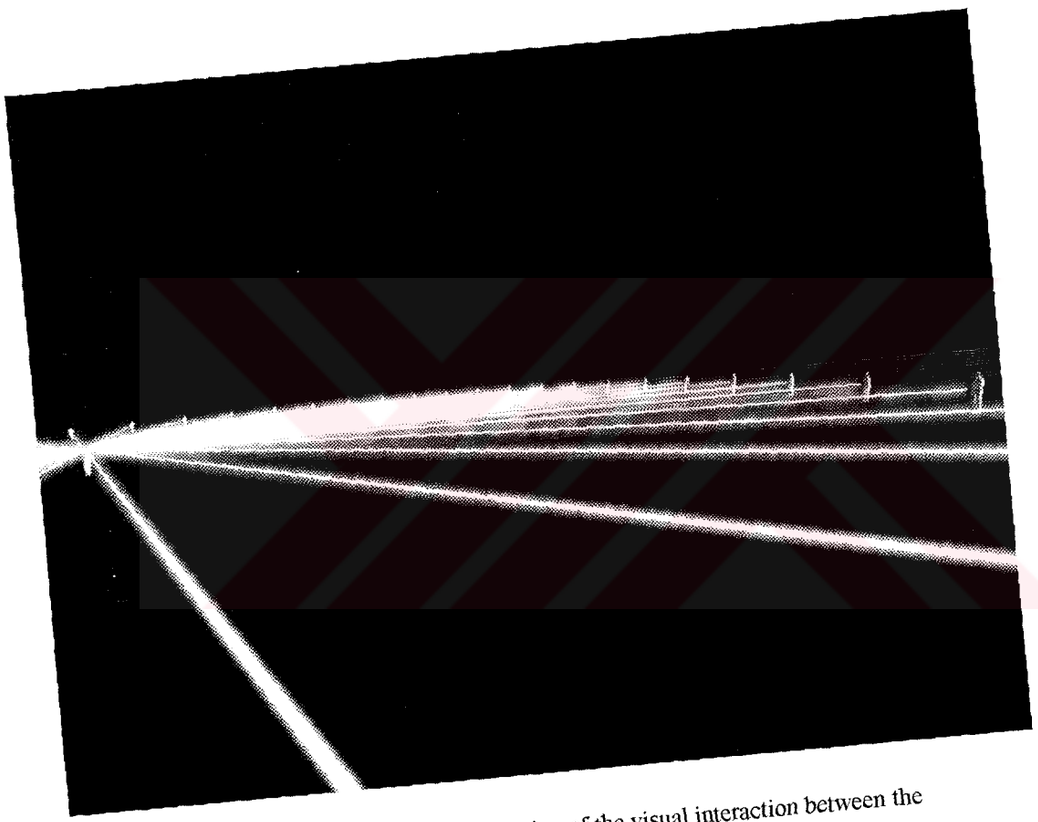

Fig. App.11 A graphical representation of the visual interaction between the inspector and all the prisoners.

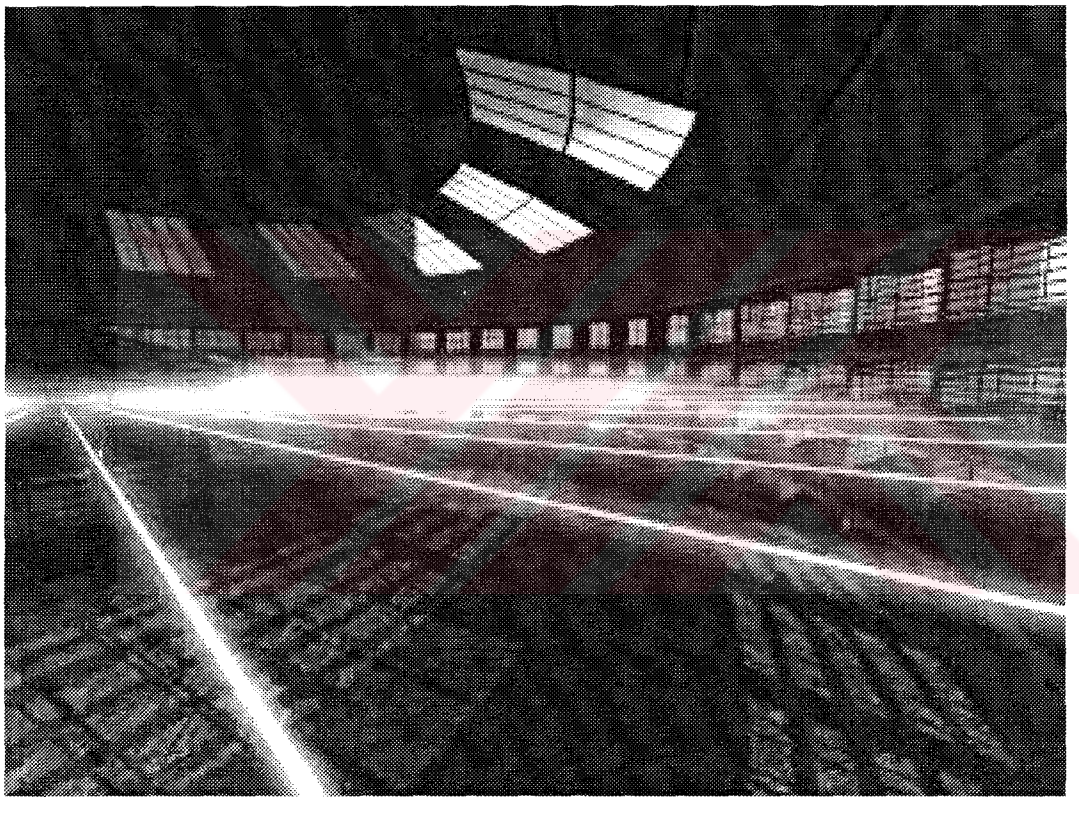

Fig. App.12 A representation of the visual interaction between the inspector and all the prisoners in the Panopticon.

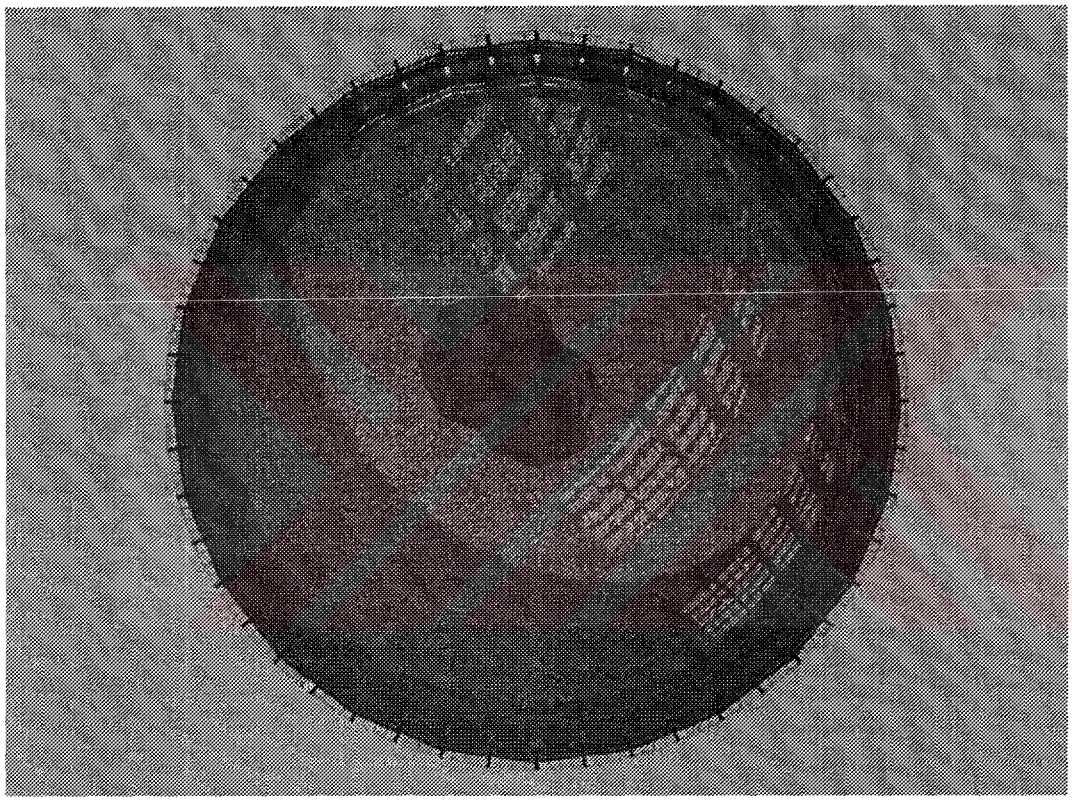

Fig. App.13 A view of the interior of the Panopticon from camera III.

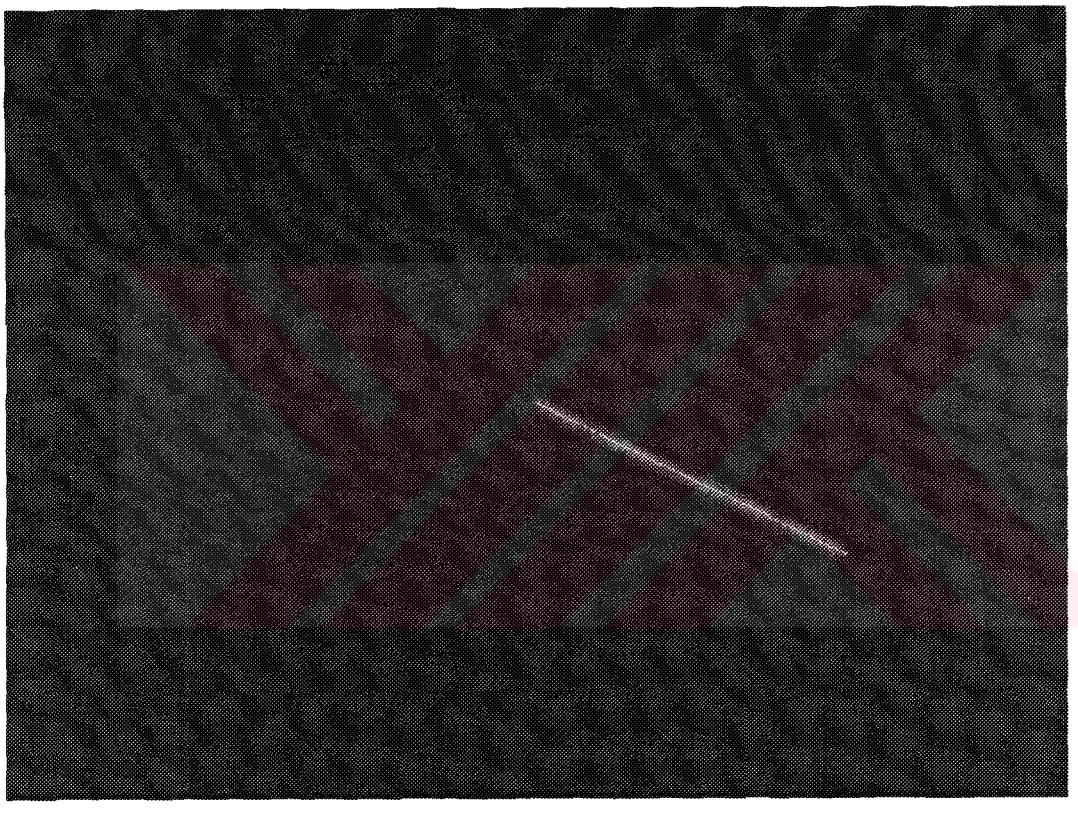

Fig. App.14 A graphical representation of the visual interaction between the inspector and a prisoner.

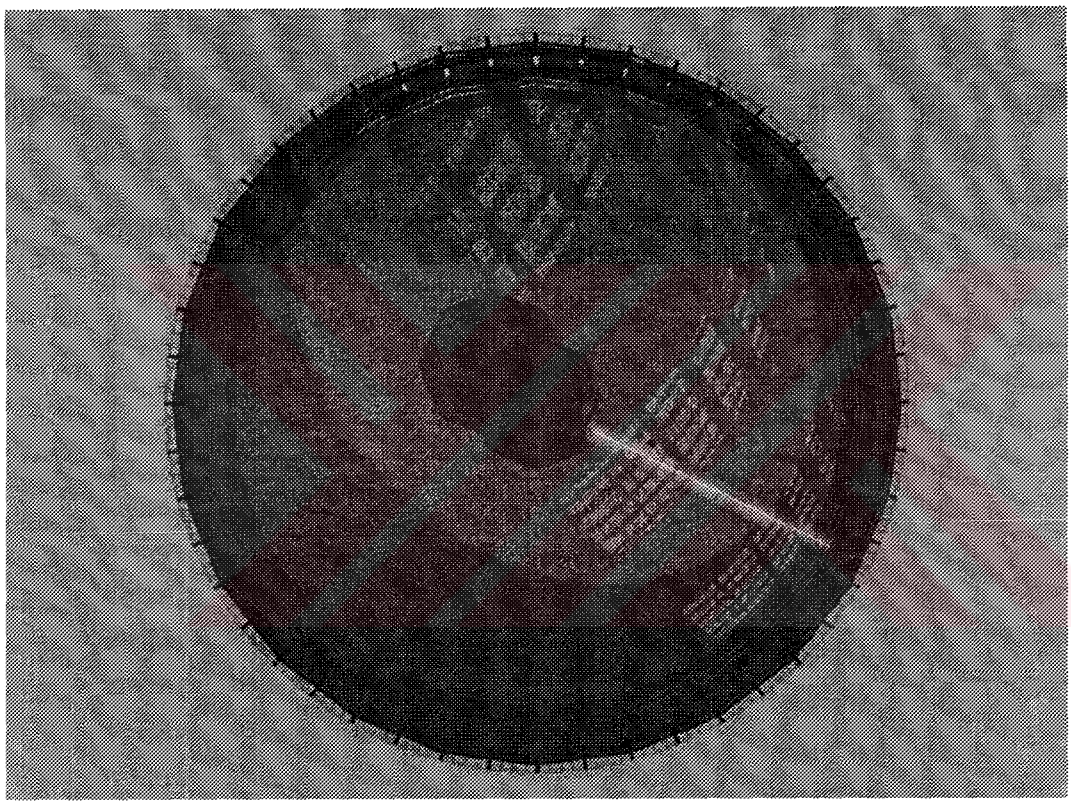

Fig. App.15 A representation of the visual interaction between the inspector and a prisoner in the Panopticon.

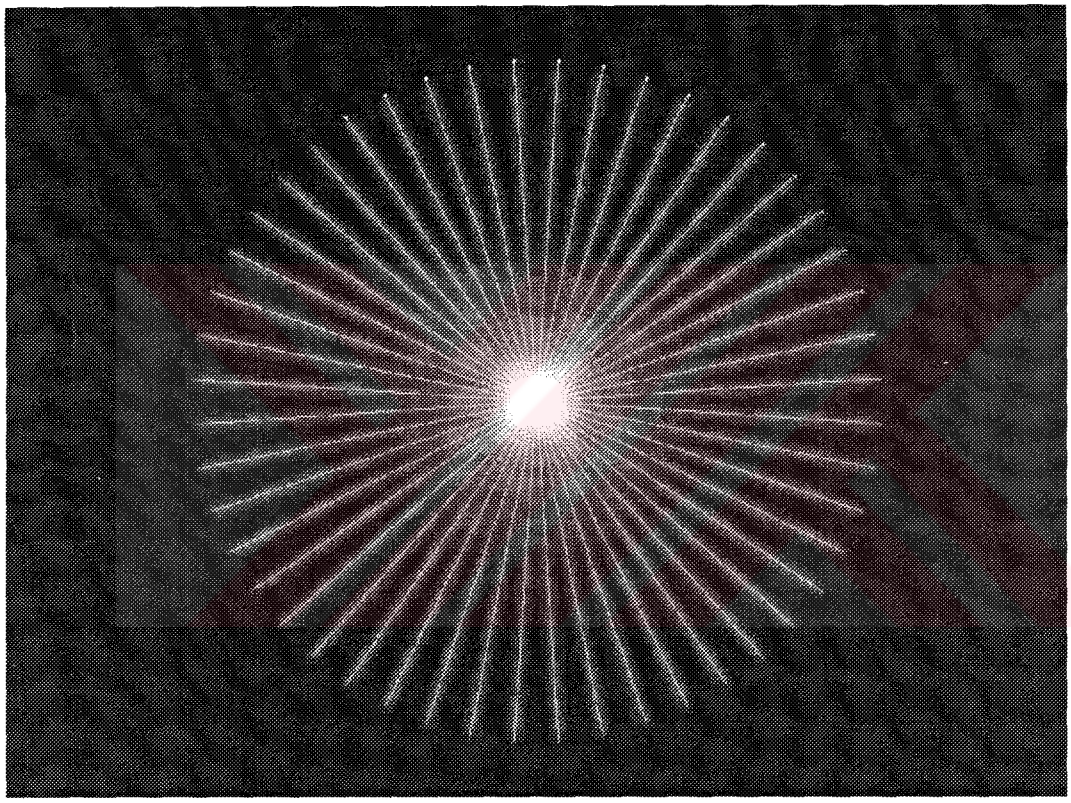

Fig. App.16 A graphical representation of the visual interaction between the inspector and all the prisoners.

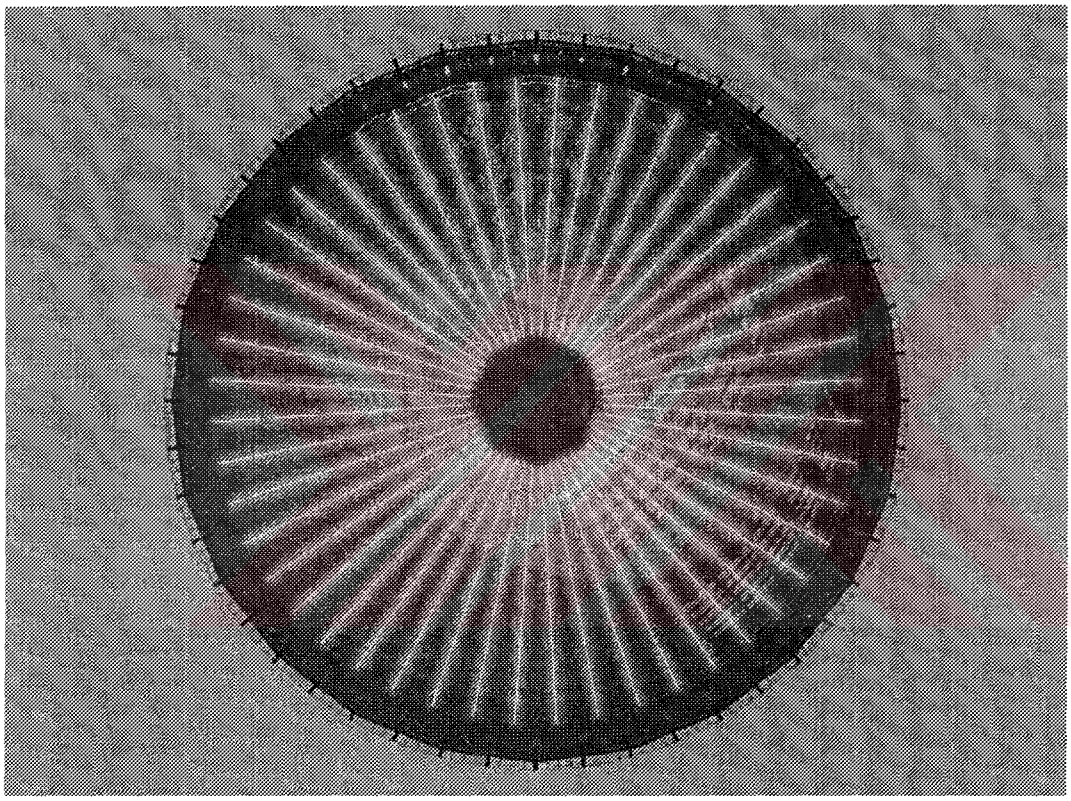

Fig. App.17 A representation of the visual interaction between the inspector and all the prisoners in the Panopticon.

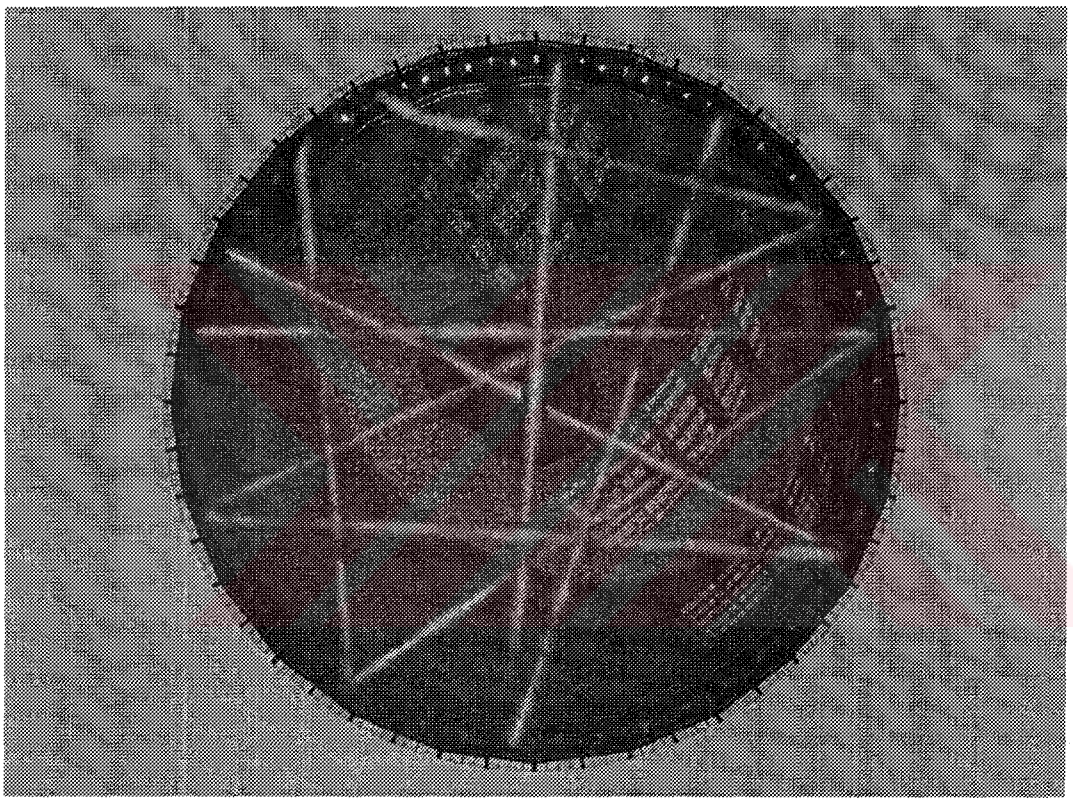

Fig. App.18 A representation of the visual interaction between the prisoners in the Panopticon, according to the assumption that there is no watchtower.