

Title page to *Le Carceri (The Prisons)*, a series of 16 etchings executed by Giovanni Battista Piranesi circa 1760.

# From Dungeon to Dayroom

## A Brief History of Penal Architecture

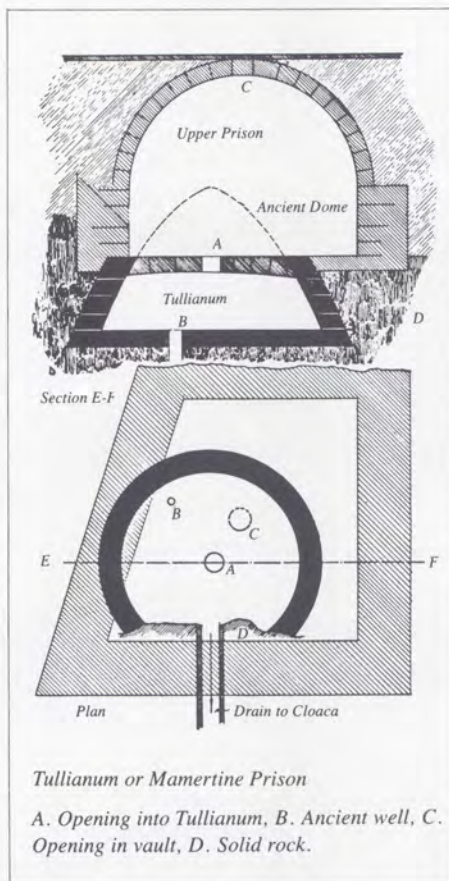
By Peter C. Papademetriou, AIA

*"The mood and temper of the public with regard to the treatment of crime and criminals is one of the most unfailing tests of the civilization of any country."*—Sir Winston Churchill

It is perhaps in the low building types, those in which are invested the least of priorities, that the character of a society can best be measured. Here, where choices are basic, pretensions are stripped and fundamental relationships emerge. People's relationships to one another, and their individual rights within a collective context, are perhaps essentially seen in the process of transgression against society and the response met by institutions created to maintain the stability of society against such acts. Therefore, the system of laws, its supporting network of justice and the physical housing of those marked as "criminal" reflect these complex relationships. For architects, the baseline is the formation of institutions which adequately mirror these relationships, and society's evolution in the understanding of the rights of individuals is clearly seen in the form of its penal architecture.

Terms are often used interchangeably, and concepts have evolved as philosophies of law, order and justice have changed. The notion of a "correctional" facility is a fairly modern one, obviously at variance with the more generic "penal" designation. In a truly democratic society, the distinction between a jail as a place for pre-trial detention (where the inmate is theoretically innocent) and a prison (where the guilty party is serving a term) is critical, and their forms should reflect the difference. Historically, however, the terms are interchangeable and old habits tend to persist.

Involuntary confinement by some constituted authority undoubtedly existed on occasion all through history, making it



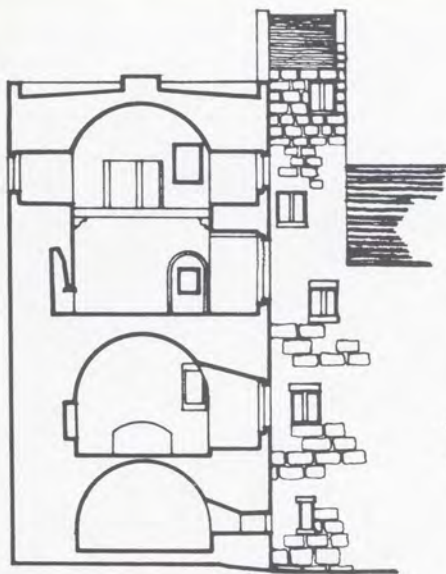
impossible to accurately date the earliest use of prisons. As places of punishment, however, they were uncommon until the 18th Century, and were rather used as places of detention for those awaiting trial and sentence. Crimes themselves had severe consequences, summarized perhaps by Hamurabi's "Law of Retaliation" in the principle of "an eye for an eye; a tooth for a tooth." The Bible story of Joseph tells of a prison in Egypt, yet the *Jewish Encyclopedia* states, "Imprisonment as a punishment is not known in Mosaic Law. The few apparent cases mentioned in the Pentateuch refer in fact to the temporary detention of the

criminal until sentence could be passed upon him." In 6th Century B.C. Jerusalem, by the time of its conquest by Nebuchadnezzar, there were three categories: Beth-ha-keli (house of detention); Beth-ha-asourim (house of those in chairs) and Beth-ha-mahpecheth (house of those with chained hands and feet).

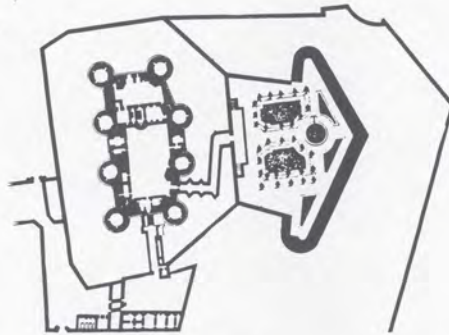
There were prisons in Ancient Greece, notably at Athens under the rule of The Eleven, but they were essentially large rooms or underground chambers; prisoners were not separated and friends and family were allowed great freedom in visitation. By the 5th Century B.C. Plato, writing in *De Legibus*, anticipated our modern system when he wrote, "Let there be three prisons in the city: one for the safe keeping of persons awaiting trial and sentence, another for the amendment of disorderly persons and vagrants, those guilty of misdemeanors, to be called a 'sophonesterion' (house of correction) . . . a third to be situated in the country away from the habitations of man, and to be used for the punishment of felons."

Roman *carceres* (to be "incarcerated") were usually for slaves, with citizens instead being chained by their wrists to soldiers. The Tullianum, now called the Mamertine Prison, was typical of the type using underground cisterns with access through top gratings. Begun around 640 B.C. by Ancus Martius, it was located for the most part under the Cloaca Maxima, the main sewer in Rome, with an upper rectangular room lit by a hole in the ceiling some 16 feet above the floor, and a conical lower chamber completely dark and accessed by an aperture in the floor of the upper room.

Even by the Medieval period, arrangements for keeping prisoners were essentially makeshift, most typically the "dungeon" or lowest floor in a castle keep. Specifically constructed chambers appeared more commonly after the 12th



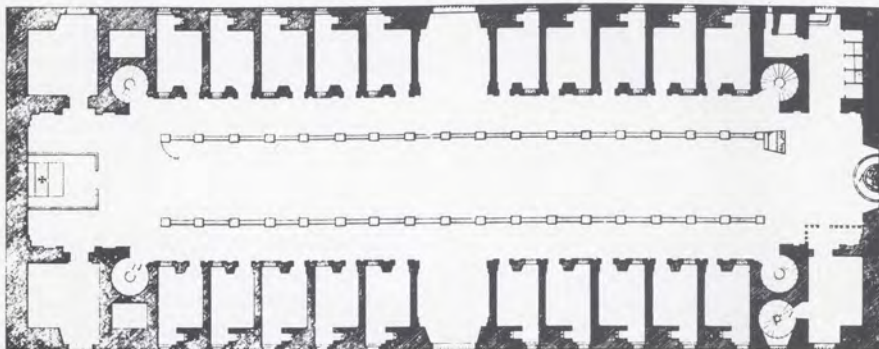
Typical medieval dungeon (lower chamber).



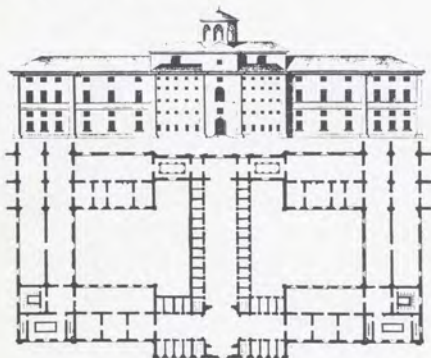
The Bastille, Paris, 1369.



Hospice of San Michele, Rome, 1704.



Hospice of San Michele.



House of Correction, Milan, 1756.



Newgate Prison, London, 1769.

Century A.D., generally a lightless room equipped with a "necessary," a simple toilet cubicle in the thickness of the wall. A large example would be the Bastille in Paris of 1369 with eight main dungeons having walls ten feet thick.

Precedent for both the philosophy of imprisonment, as well as the architectural form associated with it, may be seen in its use in the Christian Church, which by the medieval period had under its aegis a large body of clergy, clerks, functionaries and monks. Forbidden to shed blood and drawing on the theme of purification through suffering, the canon courts came to subject the wrongdoers to confinement not as punishment but as a way of providing conditions under which penitence would occur. As early as 500 A.D., for more serious offenses, statutes of the Order of Cluny specified a prison similar to a dungeon. Two small cells known as "The Twins" still exist on the lower floor of the Abbey at Mont St. Michel. The ascetic dogma, with its emphasis on the soul and afterlife, could hardly be expected to evolve an architecture giving physical comfort, although the idea of reformation left upon later thought and social theory a strong imprint.

The *Magna Charta* clarified the origins of our justice system, and with the decay of feudalism towns and cities established "gaols," as decreed by the seventh article of the Assize of Clarendon in 1166. Initially, prisoners of all types were mixed together.

### Workhouses

By the Tudor period, vagrancy and unemployment led to the establishment of workhouses for the compulsory employment of beggars. The year 1577 saw the opening of the first such facility at the Royal Palace of Bridewell, and in 1576 Parliament called for each county to erect its own "bridewell." In the 17th Century their popularity spread to the Continent where many were established in Holland, Germany, Belgium and Scandinavia. The "Bettering Houses" of Holland became models for some of the legislation and reform in Britain and the American colonies. However, the workhouse essentially was a large hollow square with prisoners working and sleeping in the common rooms. In England the gaols, for the safe custody of debtors and those awaiting trial, and the workhouses soon became a difference of name only as overcrowding became a norm.

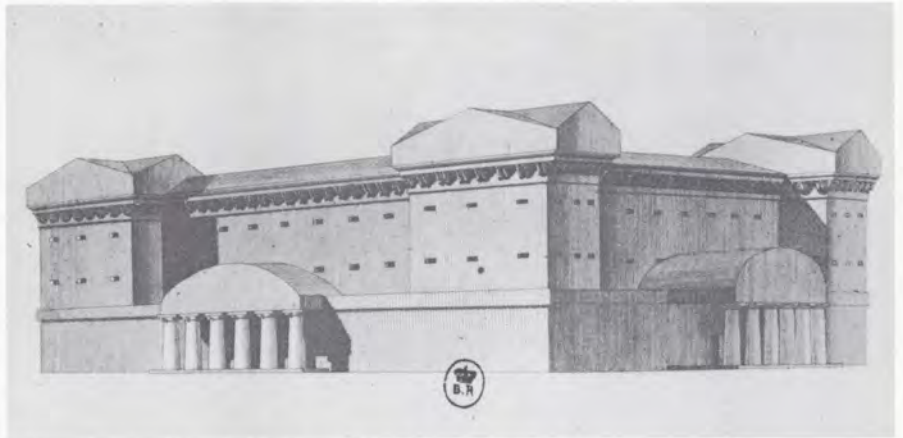
From the squalid conditions reform

movements developed to change penal methods. The first was initiated by Filippo Franci who started a workhouse for recalcitrant and vagrant boys in Florence, which incorporated cellular categorization. The first clear use of the concept dates to 1704 and the *casa di correzione* designed by Carlo Fontana at the hospice of San Michele in Rome. It featured a center hall serving as workroom, dining and chapel, surrounded on two sides by 30 outside rooms on three tiers. In 1756 the Milan House of Correction combined these concepts with the traditional cross plans found in Italian churches and hospitals.

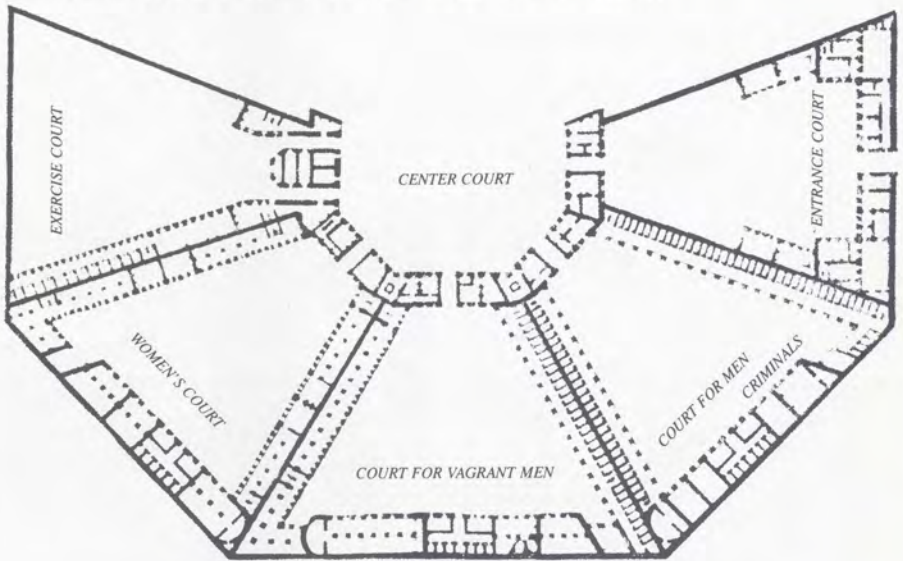
**Darkness, Terror**

More typically, however, from the 16th Century onwards an increasing number of petty offenders wound up in prison in lieu of corporal or capital punishment. Large rooms freely mixed prisoners of varying offense, age, health, and sex. Newgate Prison of 1769 was typical of such congregate facilities. It was even the opinion of Francesco Milizia in 1785 writing in *Principi di architettura civile* that the form of a prison should inspire "darkness, threatening, ruins, terror," certainly seen in the large-scale blankness of Newgate itself, or a proposal by Claude Ledoux of 1784 which featured huge coffins on the four corners of the building.

The Prison of Ghent in 1773 was the first large facility containing contemporary concepts and, paradoxically, the two distinguishing features which were to represent certain polarities of opinion in the future. It had night isolation of prisoners, separation of the sexes and then separation according to age, offense and length of sentence. Its octagonal form combined back-to-back cells with exterior circulation in wings radiating from a center, thereby dividing the shape into categorized courtyards. Similar ideas could be seen in two proposals by Sir John Soane of 1784, and were symptomatic of a reform movement beginning in the 1780s and led by the labors of John Howard whose detailed observations were published in *State of the Prisons* in 1777. These culminated in the creation of "Blackstone's Act" of 1778 which established penitentiary houses, confirmed the principle of separate confinement, stressed the need for moral and religious instruction, fixed cell standards and called for regular inspection. The General Prisons Act of 1782 further emphasized separation of offenders, and segregation of the sexes. These reforms found ex-



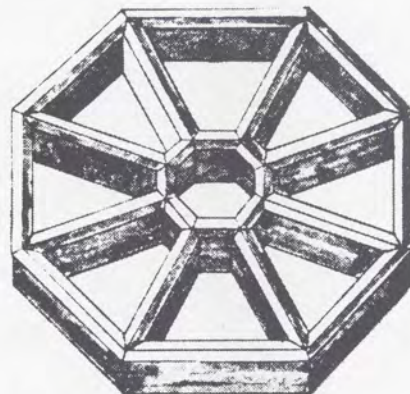
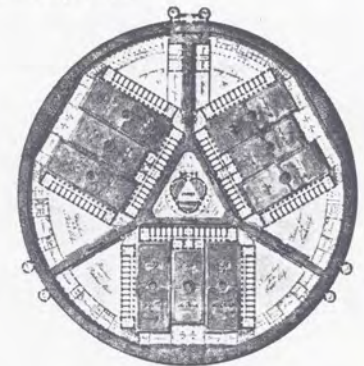
Prison proposal by Claude Ledoux, 1784, with "coffins" at the four corners.



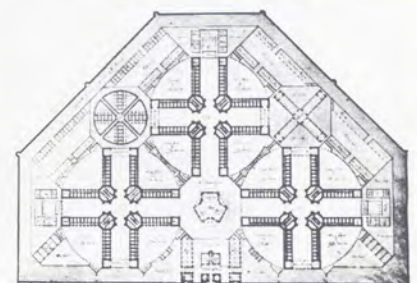
Cellular prison, Ghent, 1773 (finished portion).



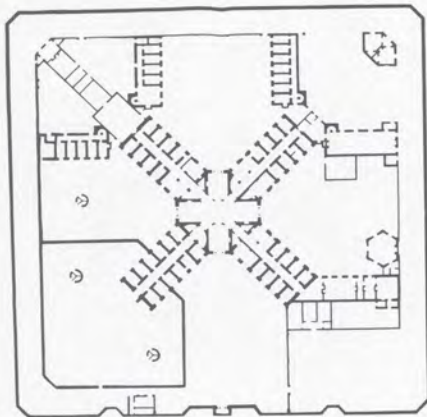
Criminal's Ward elevation, Ghent.



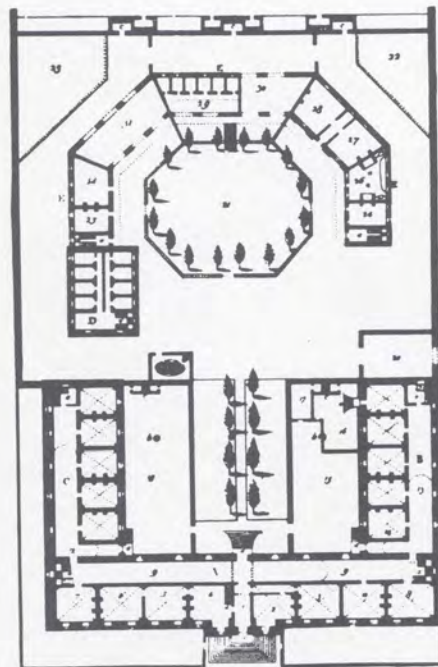
Prison as proposed, Ghent.



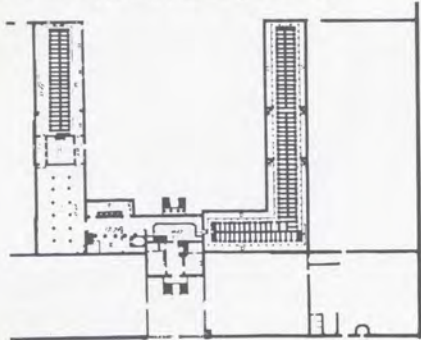
Proposals by Sir John Soane, 1784.



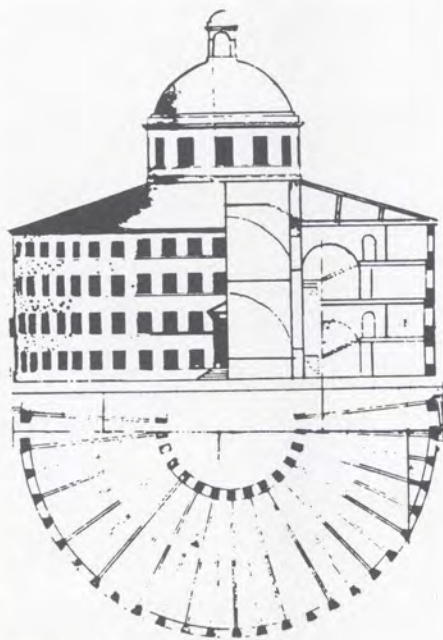
Ipswich Gaol, 1786.



Walnut Street Jail, Philadelphia, 1790.



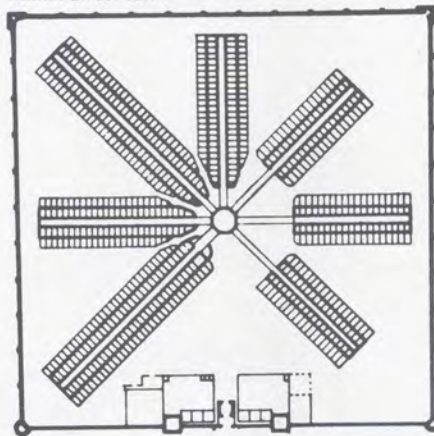
ABOVE: Stick form, Auburn, New York, 1816.  
RIGHT: Section, Eastern Penitentiary, Philadelphia, 1823. Key: 1. Cells, 2. Open corridor with gallery above, 3. Exercise yards.



Bentham's Panopticon, 1787.



Walnut Street Jail.



Radial form, Eastern Penitentiary.



pression often in radial prisons as in Soane's proposals, or the Ipswich Gaol of 1786. One of the critical issues to Howard had been proper supervision, and this led to the proposal by Jeremy Bentham in 1787 for a circular form which was designated the Panopticon.

In America, William Penn's "Great Law" of 1682 instituted the concept of the workhouse, and resulted in the formation of the Philadelphia Society for Alleviating the Miseries of Public Prisons. **Reform**

The first manifestation of this reform was the erection of a group of single cells in the yard of the Walnut Street Jail in 1790, some twenty years after the building was constructed. This jail combined both individual and congregate forms, but led to the evolution of the two basic American systems. The *Pennsylvania (or Solitary) System* was a regime of complete solitary confinement with work being done in the cell, combining outside cells (like San Michele) with radiating cell blocks (like Ghent), while the *Auburn (or Silent) System* meant solitary confinement at night with work in association during the day, in silence, using inside cells (like Ghent) with single rectangular cell blocks (like San Michele).

Eastern State Penitentiary of 1823 by John Haviland became the model for the Pennsylvania system, while the Auburn Prison of 1816 embodied the "stick" cell block form which enjoyed greater success since it had a lower construction cost, and its workshop industry was more productive. Pennsylvania models were restricted to two stories, but the Auburn scheme resulted in the six-story blocks of Sing-Sing Prison in 1828.

England, badly in need of more prison space, had resorted to the exporting of prisoners to Australia. A site at Millbank on the Thames had been bought for erection of the Panopticon, but its controversial design was attacked by reformers who had concluded that correction was more unimportant than punishment, such that a competition was held for a new approach. The first State Penitentiary was built as Millbank Prison in 1816-21, predominantly circular in principle though not in form. A central chapel was surrounded by a hexagonal administrative block and six pentagonal courts, each with cells on four sides and an inspection tower in the center of each court.

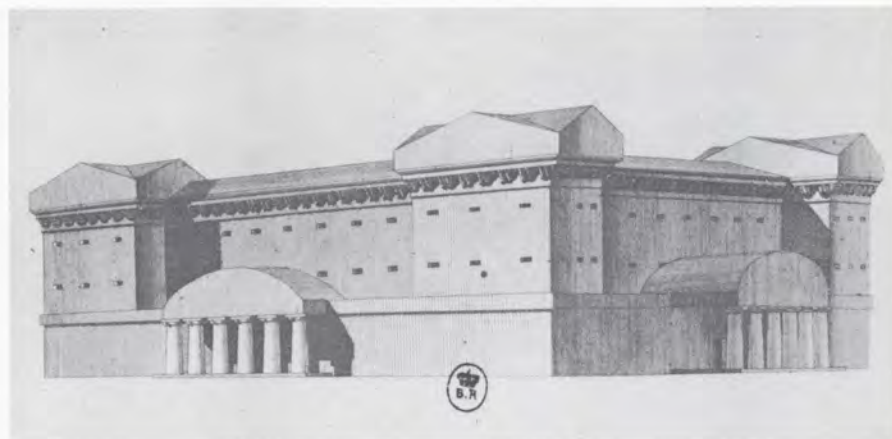
The idea of circular schemes persisted in the late Nineteenth Century, resulting

movements developed to change penal methods. The first was initiated by Filippo Franci who started a workhouse for recalcitrant and vagrant boys in Florence, which incorporated cellular categorization. The first clear use of the concept dates to 1704 and the *casa di correzione* designed by Carlo Fontana at the hospice of San Michele in Rome. It featured a center hall serving as workroom, dining and chapel, surrounded on two sides by 30 outside rooms on three tiers. In 1756 the Milan House of Correction combined these concepts with the traditional cross plans found in Italian churches and hospitals.

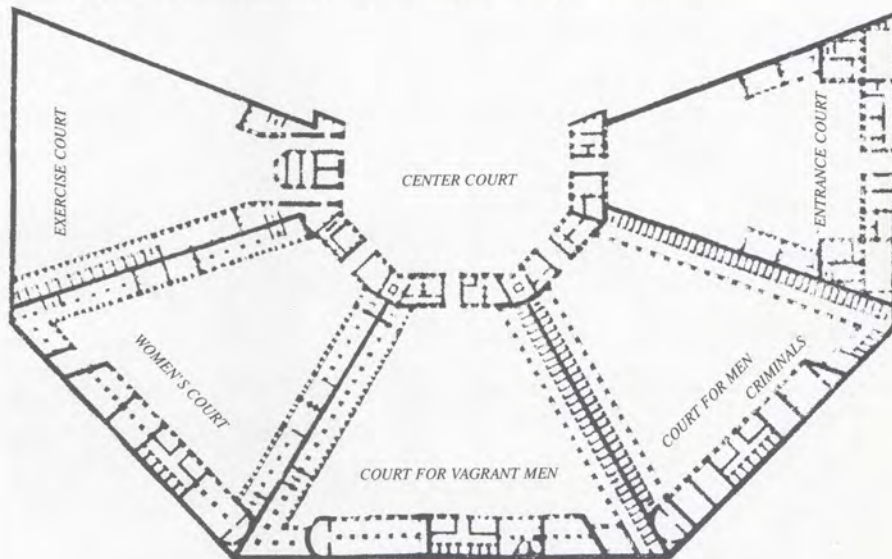
**Darkness, Terror**

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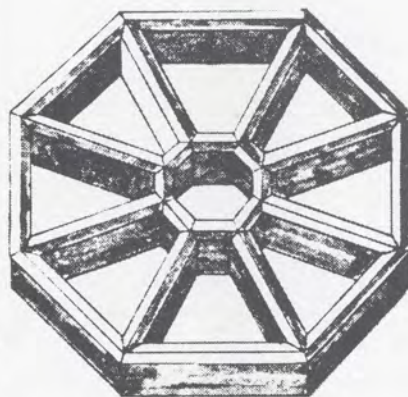
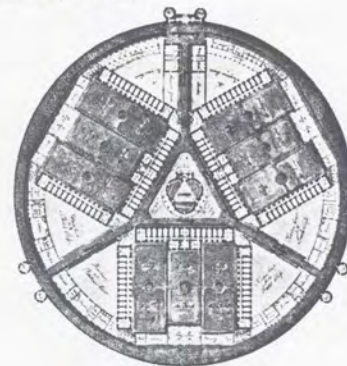
Prison proposal by Claude Ledoux, 1784, with "coffins" at the four corners.



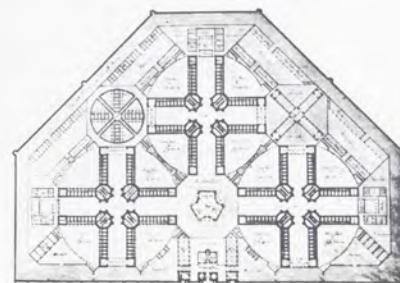
Cellular prison, Ghent, 1773 (finished portion).



Criminal's Ward elevation, Ghent.



Prison as proposed, Ghent.



Proposals by Sir John Soane, 1784.

in the American Midwest in the appearance of one of the most unusual penological tools for the incarceration of prisoners, the so-called Human Squirrel Cage, the Rotary Jail or the Lazy Susan Jail. Some five examples were built after 1880, but the most famous example is the Pottawattamie County Jail in Council Bluffs, Iowa, developed on the patented scheme of Brown and Haugh dated 12 July 1881. Here was control and surveillance at its extreme, developed at a time of rapid change following the Civil War. The logic of the Panopticon was extended to its ultimate point, presenting, as Walter Lunden observed, "... evidence of how humanitarian principles in penology had failed to keep pace with architectural designing."

By 1830, the American systems had become widely known and since the Pennsylvania system seemed to aid in prisoner reform more than the congregate living at Auburn, it became the more copied prototype. Pentonville Prison (Oxford) of 1840 grows out of the Eastern State model and itself resulted in 54 similar plans being built over the next eight years in Europe. In 1844, a variation on Pentonville was built at Wormwood Scrubs where cell blocks were arranged separately and parallel rather than radially. This led to a further variation first realized in 1898 at the French prison at Fresnes, near Paris, by Francisque-Henri Poussin which became known as the "telephone pole" design. A central corridor linked a series of rectangular cell blocks at right angles to it; its chief advantage lay in each block being a separate unit, ensuring a more effective classification of prisoners. In America, the Pennsylvania State Penitentiary at Lewisburg by Alfred Hopkins of 1932 employed this scheme, while the 1919 Illinois Penitentiary at Stateville began as a series of Panopticons in a radial pattern, although only half were actually built and later wings were in the conventional block arrangement.

**Other Variations**

In the Twentieth Century other variations began to appear. Attica State Prison of 1933 was among those comprised of buildings arranged around courtyards and connected by covered walks, but the type was expensive to build, its corridors were excessively long, and the cell blocks were spread out too far from one another and other facilities. A radical variant was proposed by Hastings Hart in 1922 for a high-rise skyscraper, a solution appropriate for use with related facilities at the



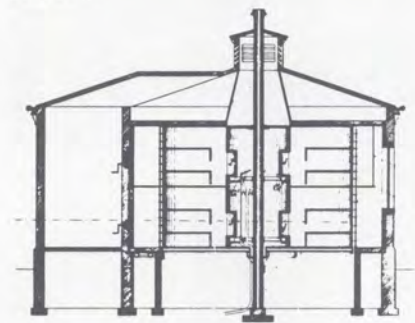
*Sing-Sing Prison, New York, 1828.*



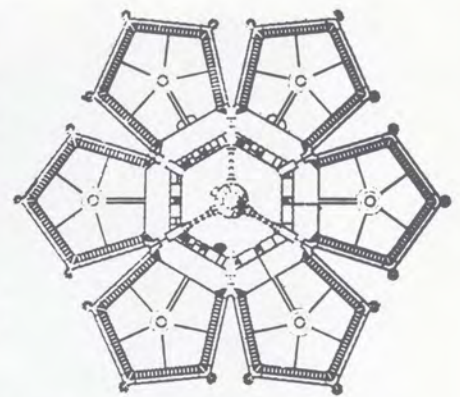
*Sing-Sing.*



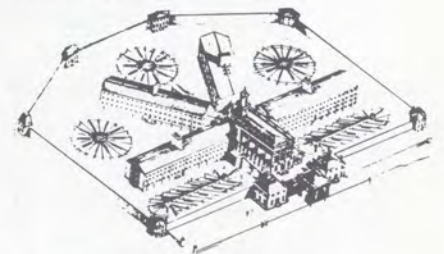
*Sing-Sing.*



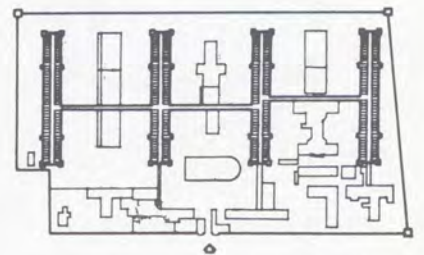
*Rotary Jail, Council Bluffs, Iowa, 1881. Revolving cylinder containing cells is rotated until the door of the cell desired is accessible.*



*Millbank Prison, London, 1816.*



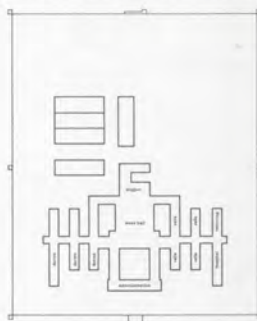
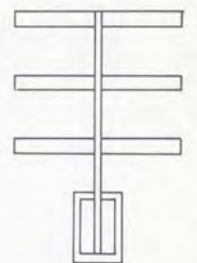
*Pentonville Prison, Oxford, 1840.*



*Wormwood Scrubs Prison, London, 1844. A variation on Pentonville; parallel, instead of radial arrangement of cells.*



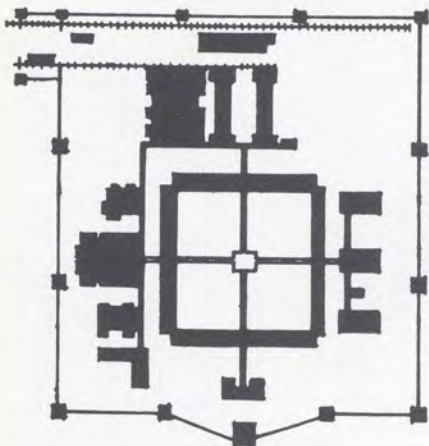
*Prison at Fresnes, France, 1898, and its "telephone pole" plan, right.*



*Pennsylvania State Prison, Lewisburg, 1932 and, right, Illinois Penitentiary, Stateville, 1919.*



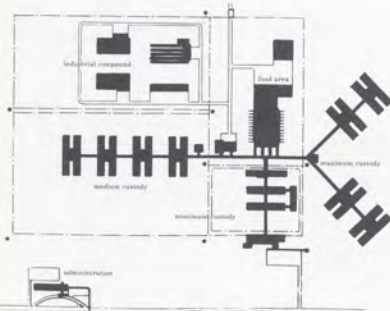
One of four completed Panopticons at Illinois Penitentiary.



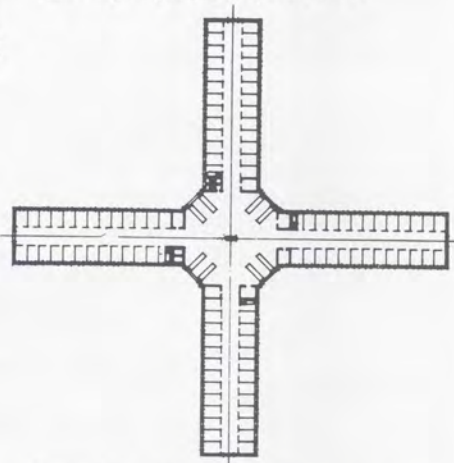
Attica State Prison, New York, 1933.



Hart's skyscraper jail proposal, 1922.



Louisiana State Penitentiary, Angola, 1955.



Plan, skyscraper jail.



Federal Correctional Institution, Seagoville, near Dallas, 1940.

base and in an urban context. The Louisiana State Penitentiary at Angola represents a recent variation of the telephone pole plan, with H-shaped blocks consisting of four single-story dorms joined at the center by common facilities.

Attempts to alleviate the scale of many prison environments led to the evolution of the articulation of clusters into smaller groupings, such as the Unit, Open Campus or Cottage prisons, of which the 1940 Federal institution at Seagoville near Dallas is an example.

Current solutions and case studies of "enlightened" jails and prisons can be seen on closer examination as variations of the typologies which have evolved over the past two centuries. The trend toward integrating the offender with the community from which he or she comes has indicated a closer link with the community. Adaptability has been the largest problem in the architectural history of prisons, as well as what Rexford Newcomb observed in 1916, "... our efforts must be directed toward the sources of crime rather than toward the ultimate resting place of criminals" while recognizing that "... the form of penal treatment must always, of necessity, establish the basis for the architectural design. . . ." Suzanne Stephens, writing in the March 1973 *Architectural Forum*, observed, "The basic problem seems to be that correctional and penological philosophies are in a state of metamorphosis; a metamorphosis that underscores the costliness of buildings which neither get built overnight, adapt easily to different programs, nor are readily torn down." Comprehensive evaluation in the face of new human rights legislation has even suggested a moratorium on building until the forms of treatment are reconciled, for as William Nagel also suggests in the same *Forum* issue, "So long as we build we will have neither the pressures nor the will to develop more productive answers."

*Peter Papademetriou teaches at the Rice University School of Architecture. He writes for Progressive Architecture and also is a Texas Architect contributing editor.*

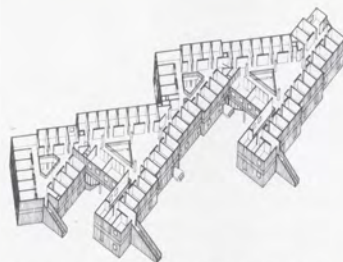
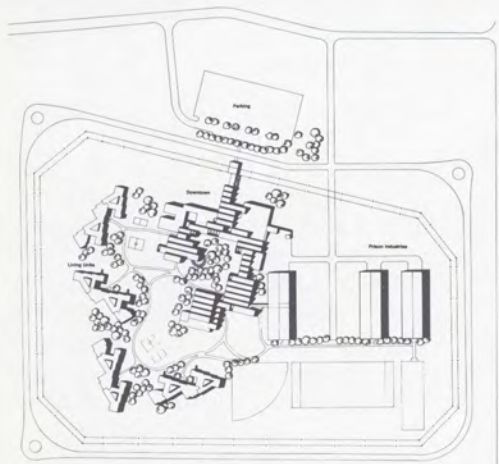




The Texas Department of Corrections' Dr. George J. Beto Unit near Palestine, left, now under construction by TDC inmates, will be TDC's largest unit upon completion in 1983. The 655,665-square-foot facility, designed by Page Southerland Page of Austin and Geren Associates, Fort Worth, will house 4,000 inmates. Right, TDC's 212,000-square-foot inmate hospital, now under construction at The University of Texas Medical Branch in Galveston. Architects: Bernard Johnson, Inc., Houston, and Jessen Associates, Inc., Austin.



The Bastrop Federal Youth Correction Center by the Houston firm Caudill Rowlett Scott. The 175,500-square-foot facility features one of the largest solar heating and cooling systems in the world.



Bastrop site plan, left. Above, living unit axonometric. The 500-inmate facility, completed in 1978, was one of 20 projects nationwide exhibited in the 1978 Exhibition of Architecture for Justice Facilities sponsored jointly by AIA and the American Correctional Association.

## Some Basic References:

### \*Di Gennaro, Giuseppe et al

*Prison Architecture*  
(United Nations Social Defense Research Institute) Architectural Press, London (1975) This reference not only contains an excellent history of prisons and jails, but also presents contemporary international case studies in a consistent, comparative manner (and at the same architectural scale).

### Hart, Hastings H.

*Plans and Illustrations of Prisons and Reformatories*  
Russell Sage Foundation, New York (1922) A period piece by the then President of the American Prison Association; shows state of the art in the early Twentieth Century, and has contributions by numerous architects.

### \*Johnston, Norman

*The Human Cage*  
Walker + Co., New York (1973) This relates the evolution of architectural form directly to efforts in penal reform; it is a comparison to a more specific critique of contemporary standards by Nagel, William G. *The New Red Barn* Walker + Co. New York (1973).

### Lunden, Walter A.

"The Rotary Jail, or Human Squirrel Cage" in *Society of Architectural Historians Journal* December 1959. An in-depth presentation of one of the most bizarre jail concepts ever erected in the U.S.A.

### Newcomb, Rexford

"The Evolution of the Prison Plan" in *The American Architect* (3 parts, beginning October 18, 1916). Contemporary sources seem to draw heavily from Mr. Newcomb's articles, as well as from his original diagrams.

\*Contains good bibliography; also refer to Swanick, M. Lynne Strutters, "The Architecture of Correctional Institutions: A Checklist of Sources" *Vance Bibliographies* #A-211.