REDESIGNING THE PUBLIC REALM:
A New Center for Santurce, Puerto Rico

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ABSTRACT

Public space is the stage upon which the daily drama of communal life unfolds, the
dynamic setting for our basic needs: politics, religion, recreation, and commerce. Essential complement to both workspace and dwelling (defined as private realms), the public space provides the common grounds for human interaction; satisfies the pressing needs of the people; brings together the diverse members of the community; and defines and strengthens a common identity.

A successful public space must respond consciously to several external forces: economic, physical, political, and social considerations; and must accommodate and adapt to possible changing trends of those same factors. Modern examples are generally inflexible economic ventures, privately administered public spaces of exclusive character, doomed to disappear due to their own limitations.

The thesis will examine the local forces that shape public space and propose a public forum for our times, by reintroducing the public experience into an existing incomplete urban fabric.

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INTRODUCTION

The comprehensive examination and analysis of the evolution of public space, from its generation to its subsequent transformation, adoption, abandonment, substitution, and/or ultimately, reactivation, in response to ever-changing (political, economic, physical, and social) trends, both natural or predetermined; will illustrate the direct correlation between the nature of the public realm and the forces that shape it.

External factors are downright responsible for the generation and transformation of the public realm. These trends have produced a myriad of public experiences. Disguised as religious and scientific ventures, colonizations were simply political and economic crusades. Economic forces, accountable for massive demographic shifts, changing social attitudes, and a redefinition and reconfiguration of public space; are perhaps the dominant forces currently shaping the public realm. Physical/natural forces, including climate and topography, act as significant constraints on both the existence of an outdoor public space and the character of the settings that may develop. Social forces, generally influenced by many other factors and representing the user needs, have been responsible for the increasingly stratified and specialized public spaces of today.

Those forces that shape the public realm can act in at least two different processes: natural and planned. Some spaces develop naturally, through repeated use in a particular way, concentration of people because of an attraction, or piecemeal, gradual appropriation. Planned public spaces, commissioned by public or private clients, are deliberate interventions within or strategies for an existing urban fabric, ranging from formal plazas to zoning setbacks. Commonly, a public space undergoes both processes: naturally conceived public areas may be unified and planned spaces may accommodate unexpected functions.

Both natural and planned forces will continuously test the suitability of public spaces and their adaptability to changing trends; inciting transformation, adoption, abandonment, substitution, or reactivation. Effective public spaces accommodate the changing trends virtually unscathed; most undergo some degree of transformation. Historically, successful public space typologies have been imitated, literally adopted without contextual considerations; these translations generally falter within foreign contexts. Specialized and inflexible public solutions are short-lived, eventually...
abandoned, and readily substituted, for they fail to respond and/ or adapt to changing forces, due to their own limitations. A recent phenomenon, the reactivation of abandoned centers, corresponds to current social and economic shifts, signaling the possible rebirth of downtown.

The following comprehensive survey of public space in the Metropolitan Area of San Juan, Puerto Rico, representative of the urban experience across the Island and possibly, I dare say, of a more universal phenomenon, attempts to understand and distinguish the various forces, processes, and evolutionary stages responsible for shaping the public spaces of today; evaluate their relative success (effective balance of somewhat contradictory forces); and propose or suggest a redefinition of the public realm.
"Los pueblos destas islas no los tenian ordenados por sus calles, mas de que la casa del rey o senor del pueblo estaba en el mejor lugar y asiento, y ante la casa real estaba en todas una plaza grande mas barida y mas llana, mas larga que cuadrada, que llamaban en la lengua destas islas batey, la penultima silaba llarga, que quiere decir el juego de pelota, porque le jugaban como abajo, si Dios quisiere se dira. Tambien habia casas cercanas de la dicha plaza, y si era el pueblo muy grande, habia otras plazas o juegos de pelota menores que la principal."\(^1\)

**Introduction.** Centuries before the arrival of Spanish conquerors, the indigenous inhabitants of Boriquén, Indian name for the Island of Puerto Rico, lived harmoniously in small settlements configured around large main plazas, the ceremonial centers of town.

**Origins.** At the time of its discovery, Boriquén was inhabited by the Taino Indians, direct descendants of the Arawak culture with roots in the Orinoco River Valley, northern tip of South America. The Taino culture, centered in Boriquén, flourished in the XIII C., spreading over neighboring Greater Antilles La Española (present day Haiti and Dominican Republic) and Cuba.

**Urban Disposition.** Boriquén was divided into several administrative regions, each governed by a hereditary chief or cacique. Caciques were responsible for the social, political, and religious administration of each settlement. Below him on the social ladder, Tainos were divided into three main classes: naborías, the common man; nilainos, the lords and nobles; and bahiques, the religious and medicine man. Caciques ruled over a yucayeque, or Indian settlement. The Taino Indians of Boriquén were sedentary and gregarious. Settlements were usually located on fertile plains and valleys, next to a flow or body of water, and scattered throughout the mountainous interior and coast of the island.

"...vieron ciertas casas de indios que, según su costumbre, estaban bien fabricadas, las cuales tenian la plaza y la salida hacia el mar, y la calle muy larga, con torres de caña a ambas partes, y lo alto estaba tejido con bellísimas labores de plantas y yerbas, como están en Valencia los jardines, y lo último hacia el mar era un tablado en que cabían diez o doce personas, alto y bien labrado."\(^2\)
Redefining the Public Realm

According to historical accounts of the discovery, yucayeques, which carried a population of 100 to 500, were not necessarily ordered on a road network, but were configured around a large main plaza, which they called batey. The batey was surrounded by princely dwellings and institutions, including the caney or residence of the cacique, temple, court of justice, and the residences of other tribal authorities. From the batey, a long avenue, flanked by rows of sugar cane, connected the main plaza to the nearby river or sea. Completing the urban settlement, seemingly random distributions of dwellings defined paths and smaller plazas.

Dwellings. The caney and bohio constituted the two main dwelling types. The former was the residence of the cacique, fronted the batey, and had usually rectangular shape and gabled roof. Roofs were covered with crossways cones, or lathes, and over these a covering of long fine grass, the leaves of the bihao, shoots of cane, or palm leaves. Walls consisted of thick canes sunk into the earth and fastened together with bejucos, vines or rounded creepers. A modification of the caney included a front porch that served as entry and reception room. Bohios were smaller and circular, supported by a central mast or post onto which the roof rafters were tied. Thirty to forty feet in diameter, bohios could accommodate several families.

Public Space. The life of the aborigenes centered around the public open space, namely the batey or main plaza. Indigenous public spaces responded to a number of external forces. A physical/metaphysical dependance on nature influenced both the location and the orientation of the public arenas. Functional requirements dictated the size, treatment, and definition (both physical and demographic) of these bateyes. These were not clearly defined by the built structure, for dwellings were not contiguous. Instead, plazas were demarcated by granite monoliths, many decorated with petroglyphs on the side facing the plaza, that served as seats for the spectators. Tribal ceremonies, including areyto (dances) and ballgames, were celebrated on the main plaza. Areytos helped transmit past glories to younger generations, celebrated meaningful events, mourned tribal misfortune, appealed to the gods, or announced war.

Tenían estas gentes una buena y gentil manera de memorar las cosas pasadas e antiguas; y esto era en sus cantares é bayles, que ellos llaman areyto, que es lo mismo que nosotros llamamos baylar cantando... Cuando quieren aver placer, celebrando entre ellos alguna noble fiesta, ó sin ella por su pasatiempo... y en las fiestas generales, así como por una victoria ó vencimiento de los
Ballgames, called *batos*, more a ceremonial ritual than sporting event, were celebrated in both the large bateyes and on smaller plazas on the outskirts of the settlement. These predetermined functional/ceremonial requirements and expected natural conditions generated successful public spaces that would survive, relatively unaltered, until the Spanish occupation.

**PARQUE CEREMONIAL INDIGENA**

The indigenous ceremonial park at Caguana in the Municipality of Utuado, Puerto Rico, dates back to 1200 A.D. and was probably the most important ceremonial center of the Antilles. Its large rectangular batey measures 160 by 120 ft., is demarcated by the familiar stone monoliths, some of which are taller than 6 ft. Besides the large plaza, the park accommodates ten smaller rectangular plazas and a circular one, and is bounded by the Tanamá River.
Conclusion. The life of the early inhabitants of Puerto Rico revolved around the bateyes and public open spaces, and the communal rituals and activities therein celebrated. This urban structure was soon redifined by the Spaniards, whose Laws of the Indies imposed a new concept of ideal urban settlements on the colonies. Nevertheless, the legacy of the Taino Indian lives on. The word batey is currently used to designate a different kind of open space, the patio fronting the residence of the jibaro, ethnic descendant of the Taino.
**SPANISH HEGEMONY**

**Introduction.** Spaniards imposed new concepts for ideal human settlements, configuration of towns and distribution of public urban spaces, upon their colonies in the New World; concepts based on their own urban tradition, a tradition dating back over 1500 years. This strict urban composition, enforced by the document known as the *Laws of the Indies*, was vital in shaping both the urban and social behavior of the American colonies.

The Spanish conquerors, on their arrival to Puerto Rico in 1508, 15 years after the discovery of the Island, enforced urban planning concepts derived from their own urban tradition in the Iberian peninsula and early experiments on the first Spanish colonies in the Americas, those in neighboring La Española. That urban tradition is characterized by the grid pattern, the orthogonal disposition of streets and blocks, and its origins can be traced back to neolithic times. Yet, the systematic use of the grid pattern as urban planning directive is attributed to the Greeks.

**GREEK PERIOD**

**Introduction.** According to archeological studies, the early Greek settlements in the Iberian peninsula date back to the 7th century B.C. In the homeland, Greek urban expansion latched onto early Greek village structures, which were then expanded and/or interconnected through *synoecism*, the consolidation of independent villages into a single community. On the other hand, the existing built urban framework within the colonies did not have to be respected. Greek colonies were organized on a grid pattern, an imposed rational urban order that facilitated the future expansion of new towns.

**Urban Disposition.** The Greek grid can be considered the first fully coordinated system for the planning of cities. The Greek grid was divided into bands rather than blocks, the *per stigas* scheme. A small number of East-West broad avenues divide the city into long bands, dissected by one or more North-South avenues. The superblocks were broken down into rectangular blocks by narrow lanes. Blocks were subdivided into building lots, both private and public institutions. Two main features distinguish the Greek city: the *acropolis*, or religious center, and the *agora*, a multipurpose public open space acting as the social and administrative center.
Redefining the Public Realm

**Dwellings.** Greek houses looked into an interior court with a cistern and altar. Rooms were not strictly defined by function, yet the dining and entertainment room, or *andron*, was usually located in a corner of the house, receiving direct light from two sides. Floors consisted of hard-packed earth and walls of sun-dried brick. The Hellenistic dwellings differ from the Classical example in the richness of material, detailing, and treatment.

**Public Space.** The Greek agora was the public forum of all citizens, the scene of public speeches, citizen assemblies, shows, social, and commercial activity. Mirroring the development of early Greek cities through synoecism, agoras developed naturally. Originally, they consisted of not much more than a level piece of open ground, usually contiguous to a hillslope, which could serve as natural auditorium for the spectacles. Few buildings, both commercial and administrative, loosely defined this public urban space.

The *stoai* was one such structure. A free-standing portico in late 7th century B.C. sanctuaries, stoas provided shelter from the weather and overnight accommodations for pilgrims and sick. In time, stoas became a common urban feature, accommodating new functions, including public sessions of the court, official banquets, public announcements, and commercial activity. Porticos, the threshold between the public outdoors and private quarters were common during the Bronze Age, as an extension of existing structures. The Greek *stoa*, however, was a free-standing structure which acted as an edge to the public urban forum, defining its shape, absorbing some of the activity of the open space, an adequate transition between public and private realms. Stoas exemplify a designed structure that adapted to ever-changing needs.

The agora of Ancient Greece is a clear example of a naturally developed public space that is subsequently rigidified and unified. The agora went through three major stages of development. Classical Greece suggested enclosure, simply using colonnaded fronts along one or two sides. During the Hellenistic period, symmetry was of utmost importance, and public spaces were defined along three and even four sides, with frequent access points along its perimeter. A final phase in development falls within the Roman period, were public spaces were completely enclosed and accessed strictly through formal gates at specific axes. The spatial sequence leading to the public agora, initially defined urbanistically, was achieved through architectural composition. The conscious definition and unification of the public spaces, probably fueled by political enforcement, helped strengthen a common regional and national identity that proclaimed their undisputed power.
**Conclusion.** As early as 7th century B.C., Greek settlements in the Iberian peninsula were configured in grid-locked patterns. The urban pattern facilitated future expansion, implementation, lot subdivision, and an interconnected distribution of open spaces. These public urban spaces served as the stage of human activity and interaction. The Classical planner understood the importance of public urban space, integral to their architectural program. Never a residual, the public space was carefully defined and activated by surrounding structures. This is certainly one of Classical Greece’s greatest achievements.

**Case Study 1: Miletus, Turkey.** The plan of Miletus, Asia Minor, dating back to 479 B.C., exemplifies the *per strigas* scheme. The city grid is not oriented towards the cardinal points, but shifts slightly in the natural orientation of the peninsula it occupies, allowing certain streets to run the full length of the plain. The plan was composed of three residential clusters, arranged in no less than 400 blocks, each 30 by 53 meters. The plan allocated space for public urban use: the North agora facing the Bay of Lions, the western agora just above Theater harbor, and the Great Miletus (Turkey), 479 B.C.: plan. (Kostoff 1985:142)}
The Hippodamian system can be summarized in three main guidelines: the division of the city into sectors, each arranged in orthogonal street patterns; allocation of public areas for specific functions; and provision for the placement of individual public buildings.

Successive plans of the North agora at Miletus describe the three major stages of its development. The first ground plan, belonging to the 5-4 th centuries B.C., presents a large L-shaped stoa, with shops along one of its legs, fronting the harbor. Behind it, a smaller L-shaped stoa with shops and a free-standing stoa with shops define a smaller open space. Together, the stoa system and adjacent structures merely suggest a larger public forum to the South. The Hellenistic period, 3-2 nd century B.C. particularly, favored architectural symmetry and stronger definition of public space. Single-aisled stoas without shops bounded the western and southern limits, with the original North stoa providing northern enclosure. The Roman planner added a fourth single-aisled stoa with shops along the eastern edge, seamlessly enclosing the public forum.
Case Study 2: Athens, Greece. Successive plans of the agora at Athens, during both Classical and Hellenistic periods, describe two stages or different sensibilities in the development and definition of the public space. As advised, the agora sits on level land and adjacent to a natural slope, from which the Temple of Hephaistos oversees the space. Princely structures and stoas with help from private houses and shops loosely contain this odd-shaped plaza. The Mint and South Stoa define its southern edge, private houses and shops its eastern edge, Stoa Poikile its northern edge, and the Royal Stoa and Stoa of Zeus, the new and old bouleuterion, or council hall, and Skias its western edge. By the first century B.C., the agora was more definitely circumscribed by colonnades, yet not fully enclosed. The South Stoa, now a system of parallel stoas containing South Square, a commercial agora, was pushed North, closer to adjoining structures. A splendid two-aisled stoa with shops, East of the dromos, house the eastern colonnade. On the West side, a metroon, or archive building, was built as part of the bouleuterion group. The continuous western colonnade concealed irregularities in their elevations, scales, and rooflines.

ROMAN PERIOD

Introduction. Romans inherited and built upon the Greek urban tradition, developing a systematic urban scheme and theory that predisposed the design of new Roman military outpost cities, and colonies, including those in the Iberian peninsula. The restrictive guidelines prescribed the location of towns, the territorial subdivision of both urban and rural lands, distribution of public urban spaces and institutions, favoring a symmetric, axial, and theatrical spatial experience.

Urban Disposition. The new urban theory dictated the territorial subdivision of land into large squares measuring 728 squared meters, called centuriae, for they could accommodate 100 handholdings. New towns were located at the junction of main North-South (cardo) and East-West (decumanus) axes of the centuriation and their intersection marked the center of town, the forum, which served as the town’s civic and religious center. The road network was composed of principal roads, cardo and decumanus, and narrower secondary roads of no hierarchical order, all of which were oriented towards the cardinal points. The elongated city block of Greek tradition was substituted by square units. Whereas Greeks established their control and hegemony over older towns under their jurisdiction by superimposing the traditional grid, the Roman stamp was clearly its repertory of recognizable building types, including the
amphitheater, theater, and baths. The whole urban landscape was enclosed and protected by walled defense systems, rectangular or square in shape, which limited the population density of newly-formed towns.

**Dwelling.** The Roman dwelling is a direct reflection and interpretation of Roman urban guidelines: strong definition of open space, strict symmetrical composition, and a theatrical choreography. The single story *domus* was a tight, inward-looking dwelling type organized around a central sky-lit space, the *atrium*, with a catch basin sunk in the pavement and hooked up to a cistern below, which acted as shrine for the house god and family ancestors. Arranged axially, the atrium was the second point in the spatial sequence, which commenced at the entrance vestibule and culminated in a main room, *tablinum*, and back garden. Both atrium and back garden were seamlessly enclosed and defined, the former by symmetrical arrangement of rooms and the garden by a colonnade, a Roman adaptation of the Hellenistic peristyle. The composition of the dwelling is impeccably symmetrical about the axis, leading from entrance vestibule to back garden in an alternating sequence of light and dark spaces. Light is successfully used as a dramatic and expressive tool, reinforcing the spatial sequence as well as differentiating the private and public realms. Similarly, water is used as a positive design element that animates inert matter and establishes connections through sound and movement, intensifying the aforementioned axis. Walls were stuccoed and painted imitating marble incrustations or architectural frames with figurative scenes, a practice derived from Hellenistic models. Floors were paved in stone or fine mosaic.

New dwelling types were developed in response to the rising population: the *taberna* and the *insula*. The increasing influx of people turned the cities into multilevel tenements, the *domus* now only affordable by the very rich. The market was originally concentrated around the forum. In time, commercial activity spread along main roads and across neighborhoods, accommodated within *tabernae*, a dwelling type with open rental shops at ground level and living space above. In time, rows of *tabernae* lined up the edges of streets. An extension of *tabernae*, the *insulae* were blocks of *tabernae*, several stories of apartments rising above the ground level commercial zone. Originally built of mud-brick or half-timber construction, with wooden floors, stairs, and ceilings, brick-faced *insulae* were common after the second century A.D.

**Public Space.** The forum is the Roman version of the Greek *agora*, purposely located at the center of town, the junction of the principal axes. It is one of three basic components...
of the Roman civic and religious center; the temple and basilica complete the enclave. The typical forum was framed at one end by the basilica and at the other end by the temple. This civic center complex, with recognizable public architecture, distinguished many a Roman town without total disregard for the local built tradition. The powerful spatial sequences organizing the residential quarters configures as well the urban space. The same three features apply: axial composition; strong definition and enclosure of private and public realms; control of the public spaces and its access; and a theatrical spatial experience, playful maneuverings of light and shadow, openness and containment, that carried the spectator through the scenes of an urban play. The Roman forum is a consciously designed urban choreography, a strong reminder of the centralized authority that spawned and administered it.

**Conclusion.** The Greek urban tradition first recognized public urban space as a positive feature of the urban landscape. The Romans adopted and refined the tradition, generating a new urban theory and scheme characterized by the full definition and control of public urban space and experience. Public and private realms were conceived simultaneously, one dependent on the other. The notion of total positive space and interdependency between public and private realms ordered both urban and architectural compositions. Finally, Romans developed an urban/architectural vocabulary, the performers that staged the urban choreography. The Romans elevated architectural and urban practice to an art form.

**Case Study 1: Timgad, Argelia.** Early Roman settlements conformed to the Greek model. By the time of Pavia and Verona, both founded in 89 B.C., and Aosta (25 B.C.), the Roman grid, an adoption and interpretation of Greek and Etruscan models, had developed a character all its own. The gridded town of Timgad in Algeria, founded in 100 A.D., is one of the purest and best preserved examples of the Roman grid. Its grid measures about 355 meters on each side and is divided into quadrants, of 36 blocks each. Of the total 144 blocks, 11 are occupied by the forum, 6 by the theater, and 8 by the baths.

**Case Study 2: Pompeii, Italy.** Pompeii was a modest town of 20,000 inhabitants, a port city serving the local communities. The eruption of Mt. Vesuvius in 79 A.D. buried the city, preserving it intact as an excellent representation of early Roman urban/architectural sophistication.
Three major public centers could be identified within its walled-in premises. The forum and its dependencies, the civic and religious center of town, occupied the southwestern corner of the city. South of the crossing of the principal roads, the entertainment complex included a theater, a small palaestra (athletic training facilities), odeum (small theater), and sanctuaries to the gods. Finally, the southwestern corner of town was activated by an amphitheater and huge palaestra.

The forum was an integral part of the Roman town and of its civic/religious center. Measuring 150 by 30 meters, the open space was defined on all sides by two-story colonnades. Fifty statues of prominent figures, some equestrian, stood by the columns, facing towards the plaza. The forum was strictly pedestrian and, during this particular period, devoid of any commercial activity, except on market day. The single commercial structure in the complex, the macellum or food market, defined the upper-right-hand corner of the forum. A large structure sponsored by one Lady Eumachia, South of the macellum served as headquarters for the clothesmaker's corporation. The basilica, a public building used as general assembly room and law court located southwest of the forum, served as well as stock exchange. The northern tip of the forum was defined by the spectacular Temple of Jupiter, opposite three small administrative structures to the South. The Temple of Apollo, oriented lengthwise, lied just North of the basilica and an apsed structure South of the macellum was probably the sanctuary of the city spirits.

Representatively Roman, buildings of different date and orientation were pulled together as one unit. Two-story colonnades provide uniformity to the irregular massing of elevations of surrounding buildings. Orientation of the macellum was corrected by extending accordingly the shops facing the public forum, the depth of each increasing as you move North; and that of the Temple of Apollo was corrected visually by varying pier thicknesses, increasing as you move northward. These adjustments helped combine disassociated structures into one unified master plan.

**RECONQUISTA PERIOD**

**Introduction.** The urban grid of Classical antiquity banished with the demise of the Empire and disappeared for several centuries. Greco-Roman bastions throughout the Iberian peninsula were soon transformed from the original gridded urbs into organic compositions or desintegrated altogether. The grid comes into play again as a planning procedure with the foundation of new towns during the Middle Ages. In Spain, the new
Spanish Hegemony

towns served two major purposes: those associated and servicing pilgrimage routes to the holy sepulchre of Santiago de Compostela, roads that stretched across the northern Spanish provinces; and those towns laid down by Christians during the Spanish Reconquista, establishing territorial dominion and providing defense at strategic points. The new towns have been compared to French Medieval towns, or bastides. Bastides are considered the forerunners of colonial town planning in America and, thus, of utmost importance to our discussion.

Urban Disposition. The success of bastides depended largely on their location and their ability to attract trade. The new towns emerged at the intersection of two major roads, at a river crossing, a coastal port, a royal palace or monastery, or any other likely center for human interaction. Streets and plots were defined with the help of a length of rope. The town envelope was generally rectangular, as were the individual plots. The grided system facilitated the equitable subdivision of the land. However, the grid was flexible enough to account for geographical peculiarities. The open space of the market, corresponding to both forum and agora of Classical antiquity, dominated geographically the urban landscape and socially the human concourse. Finally, what characterized bastides were their social composition. Though sponsored by the royal houses, new towns were firmly established by the common man, under the inducement of personal landholdings. A new social class, helmed by merchants and artisans, emerged, putting a definite end to the feudal stranglehold and signaling the triumph of the middle class.

Dwelling. Though it is nearly impossible to characterize the Medieval house, dwellings along the Mediterranean regions were strongly influenced by Classical models. Old construction techniques were practiced (particularly, the exclusive use of stone and brick) and Roman types adopted, both rental shops and high-rise apartment blocks (tabernae and insulae, respectively). Street frontage was crucial on towns thriving on trade and exchange. Limited lands and large populations demanded densely-packed accommodations, narrow plots and tall houses.

Public Space. Dramatic natural shifts of economic, political, and social trends redefined the character and nature of public space during the late Middle Ages. Previously, towns had been subject to religious absolutism, particularly from the Bishop’s Office, which presided over and administered medieval cities. New towns challenged the absolutism of the Church. Sponsored by the royal houses under the inducement of personal landholdings, a rising middle class settled and administered the new towns.
The market plaza was the center of bourgeois life, the stage for a new rising merchant economy. In response, the open space of the market occupied the geographical center of town. In addition, street frontage and continuous built edges, effective trading strategies, were the common rule. Demographic forces (large migrations) and physical restrictions (limited developable lands), encouraged densely-packed accommodations and taller structures; which, in turn, produced a stronger spatial definition of the public realm.

**Conclusion.** Specific historical circumstances, the gradual reconquest of lands occupied by Muslim invaders for over eight centuries, campaigns directed by Spanish Christians, brought about the establishment of numerous cities across the conquered lands, strongholds for control and defense over their newly acquired territory. Similar circumstances will recur across the Ocean on newly discovered lands in due time. Town planning during the Reconquista was simply a rehearsal for massive colonization of the new continent of America.
Case Study 1: Puerto Real, Spain. An analysis of the development of the new town of Puerto Real can bring new light into the planning process practiced in the American colonies. Not only are both products of similar circumstances, administrative reaffirmation and control over territory, but many bastide plans coincide chronologically with early colonial settlements, starting with Santo Domingo (1505), capital of the Dominican Republic, followed by the new towns of Caparra (1508) and San Juan (1521) in the Island of Puerto Rico. Furthermore, the process of Caribbean urbanization was initiated during the reign of Ferdinand and Isabella, the same rulers who planned the Andalucian town of Puerto Real.

Puerto Real, as its name implies, served as royal port during the reconquest of Granada, the last Muslim stronghold. The founding of Puerto Real was authorized June 14, 1483 in a valuable document that prescribed and imposed legal and urban guidelines for the establishment of the new city. The document, Carta Puebl de Puerto Rea/ becomes a clear precedent to the Laws of the Indies of 1573, instruction manual for overseas colonization.

The document specified several location requirements, including adequate water access and ample fertile lands, for a minimum population of 200. The monarchy instituted an inducement strategy in order to accelerate the growth of new towns, conditional incentives which included personal plot, farmlands, and tax exemptions. Two royal commissioners were responsible for the town layout, the location of the central plaza and parish church, street layout and lot alignments, farmlands, and city limits.

COLONIAL PERIOD

Introduction. Spanish city planning during the Reconquista was simply a rehearsal for the massive colonization operative in the newly discovered lands. Not since the Ancient Romans or Muslim crusaders, had a small power successfully carried out such an ambitious plan: the conquest and colonization of vast virgin lands beyond their frontiers. The New World was the perfect stage to try out new Renaissance ideas on urban form. Urban design ideas were recorded in the city planning ordinances issued by King Philip II in 1573, a compendium of past planning edicts better known as the Laws of the Indies, which regulated every aspect of conquest and settlement in America.
Urban Disposition. Early urban settlement in conquered lands were not necessarily regular or uniform, for they followed no specific pattern. A planning regulation practice was initiated with the Royal Orders received by Pedrarias Dávila in 1513. These instructions were probably first applied to the planning of Panama City and in the rebuilding of Mexico City. The early ordinances of 1513 contained basic suggestions about the layouts of cities, instructions strongly influenced by Classical planning procedures. July 13, 1573, King Philip II issued a compilation of past city planning edicts, incorporating previous decrees by Ferdinand and Charles V. The new ordinances consist of 148 instructions dealing with every aspect of site selection, city planning, and political organization. Considering their widespread application and influence, the Laws of the Indies are probably the most important planning document in history.

The Laws of the Indies were effective in reconciliating urbanistically the dual forces of Spanish life: church and state. Most importantly, the new instructions provided a distinct homogeneity to the colonized territory, yet was highly responsive to local physical, geographical, and cultural conditions.

The ordinances specified the criteria for site selection, including ample water supply and fertile lands. Town location and orientation responded to natural forces and resources (wind, water, raw materials) and defensive considerations. Once the site was selected, the layout followed immediately, as described in the following excerpts:

"...a plan for the site is to be made, dividing it into squares, streets, and building lots, using cord and ruler, beginning with the main square from which streets are to run to the gates and principal roads and leaving sufficient open space so that even if the town grows, it can always spread in the same manner."

"Here and there in the town, smaller plazas of good proportion shall be laid out, where the temples associated with the principal church, the parish churches, and the monasteries can be built, such that everything may be distributed in a good proportion for the instruction of religion."

"A site and a lot shall be assigned for the royal council and cabildo house and for the custom house and arsenal, near the temple, located in such a manner that in times of need the one may aid the other; the hospital for the poor and those sick of noncontagious diseases shall be built near the temple and its cloister; and the hospital for the sick with contagious diseases shall be built in such a way that no harmful wind blowing through it may cause harm to the rest of town."
Spanish Hegemony

"The site and building lots for slaughter houses, fisheries, tanneries, and other businesses which produce filth shall be so placed that the filth can easily be disposed of."

"(Private) building lots shall be distributed by lottery to the settlers, continuing with the lots closer to the main plaza, and the lots that are left shall be held by us for assignment to those who shall later become settlers."\(^1\)

It is necessary to understand this urban procedure, for it clearly identifies a hierarchy of urban priorities. The city layout revolves about the main square and grows gradually by squares, as deem necessary. These interconnected urban spaces are then civic, religious, political, commercial forums of the city.

Dwelling. Though the ordinances focusing on built edifices are much too general to serve as guidelines, they do offer some basic architectural suggestions:

"They shall arrange the building lots and edifices placed thereon in such a manner that when living in them they may enjoy the winds of the South and North as these are the best; throughout the town arrange the structures of the houses generally in such a way that they may serve as defense or barrier against those who may try to disturb or invade the town, and each house in particular shall be so built that they may keep therein their horses and work animals and shall have yards and corrals as large as possible for health and cleanliness."

"They shall try as far as possible to have the buildings all of one type for the sake of the beauty of the town."\(^2\)

The square was of utmost importance in the configuration of the city. Similarly, recommendations for large open spaces are integral to dwelling plans.

Public Space. The square is by far the most important element in Spanish city configuration. The starting point of every new town, the square ordered subsequent development. Principal roads were laid out, intersecting at this urban center, the new forum. Besides the main square, smaller plazas helped activate peripheral sectors. These first plazas were eventually associated with religious functions. Squares were exclusively reserved for royal and religious structures, with few commercial establishments. Square layout was strictly delineated by the following ordinances:

"The main plaza is to be the starting point for the town; if the town is located on
the sea coast, it should be placed at the landing place of the port, but inland it should be at the center of town. The plaza should be square or rectangular, in which case it should have at least one and a half its width for length inasmuch as this shape is best for fiestas in which horses are used and for any other fiestas that should be held."

"The size of the plaza shall be proportioned to the number of inhabitants, taking into consideration the fact that in Indian towns, inasmuch as they are new, the intention is that they will increase, and thus the plaza should be decided upon taking into consideration the growth the town may experience. (The plaza) shall be not less than two hundred feet wide and three hundred feet long nor larger than eight hundred feet long and five hundred and thirty-two feet wide. A good proportion is six hundred feet long and four hundred wide."

"From the plaza shall begin four principal streets. One from the middle of each side, and two streets from each corner of the plaza; the four corners of the plaza shall face the four principal winds, because in this manner, the streets running from the plaza will not be exposed to the four principal winds, which would cause much inconvenience."

"Around the plaza as well as along the four principal streets which begin there, there shall be portals, for these are of considerable convenience to the merchants who generally gather there; the eight streets running from the plaza at the four corners shall open on the plaza without encountering these porticoes, which shall be kept back in order that there may be sidewalks even with the streets and plaza."

Contrary to the new trading centers in the mainland, these new colonies were subjected to the absolute authority of Church and State. Original plazas were associated with a religious institution, including the temple of the principal church, parish, or monasteries. The temple was generally located in the square (on occasions, on the square), accompanied by administrative institutions, including the cabildo, customs house, and hospital. The ordinances permitted no individual private lots around the plaza, with the exception of some shops and merchant houses. Functional requirements and demographic forces predetermined the size and number of plazas. Economic considerations recommended a porticoed perimeter around the main plaza, assuaging the harsh weather conditions and encouraging trade. Defensive concerns restricted built elevation to three stories and enforced visual connection among plazas.

**Conclusion.** Newly conquered lands were ideal for the Renaissance urban experiments.
practices regulated by a comprehensive selection of planning edicts edited and issued by King Phillip II in 1573, the Laws of the Indies. The planning strategy was successful in its three original objectives: provide a common urban vocabulary across the colonized lands, which sensibly responded and adapted to local particularities; stress a Christian ideology; and defended a political structure; all of which taken together define the cultural makeup of these American colonies to this very day.

**Case Study: San Juan, Puerto Rico.** The Island of Puerto Rico, discovered by Columbus in November 19, 1493, during his second voyage, was colonized fifteen years later when Juan Ponce de León, first governor of Puerto Rico, established the town of Caparra. Health considerations forced the immediate relocation of the city, which by 1521 had resettled on an island North of the original settlement.

**Urban Disposition.** The new settlers had carefully studied and considered the urban development of San Juan. The distribution of urban spaces and institutional buildings was by no means arbitrary, for they took into consideration the geography of the site, and the message they tried to convey: the city as a religious and military stronghold of the Spanish Empire. According to historians, the Plaza de las Monjas, square fronting the Cathedral, was perhaps the first urban space defined, which predetermined the axes on which major, religious, military edifices, and open spaces would be located. The first major urban elements seem to be arranged about five axes, all intersecting at this original plaza: the Dominican Convent and Hospital de la Concepción, the latter being the site of the first seat of government, axially correspond; Santa Bárbara Chapel and La Fortaleza, the Governor’s Mansion; San Felipe del Morro fort and the port area; Casa Blanca, residence of Juan Ponce de León, and Plaza de Armas; and, finally, a clear correspondence between the Cathedral and San Juan Gate, one of the three gates on an otherwise hermetic walled envelope. This early configuration of San Juan was clearly activated by the largest religious institution, the Cathedral.

The Laws of the Indies enforced strict city-planning directives on all the colonies, including San Juan. Issued in 1573, the ordinances recommended a main square, of specific size, which in turn predetermined the principal roads and block sizes. A layout based on a grid of approximately 60 by 60 meter blocks, which topography and tenement development deformed along the periphery, was superimposed over the early urban alignment. Focus moved from the Cathedral and Plaza de las Monjas to the Main...
Square, defined by the *cabildo*, or town hall, and other administrative buildings. The main square occupied the geographical center of the new arrangement, equidistant from major defense points, as suggested by military planners.

Subsequent growth of the city initiated around smaller plazas, most of which were associated with religious institutions. Plaza Colón, the only exception, was the vestibule to the city, located just within the city gates. The other large urban spaces are associated with religious orders: Plaza San José, adjacent to the Dominican church and convent, determined the growth of the northern sector; Plaza San Francisco, fronting the Franciscan church and monastery, was key to the growth of the southeastern sector.

The eighteenth century saw little institutional development. Efforts were concentrated in constructing a sound impermeable defense system for San Juan: a walled perimeter guarded by the forts of San Felipe del Morro, San Cristóbal, and La Perla. The following century witnessed the rapid densification of the city, propelling an unprecedented civic and private construction. The city gradually but firmly consolidated into the existing barrios of San Juan, Santo Domingo, Santa Bárbara, San Francisco, and Ballajá.

**Dwelling.** Early plans illustrate two basic residential typologies in the capital city: 1 to 2 story constructions with gabled roofs and bohíos, wooden constructions covered in palm leaves and shoots of cane, a literal adoption of primitive PreColumbian dwelling types. Most of these residences contained within and towards the back of their premises enclosed private gardens and patios; the residencies themselves fronted and defined the street. The drastic urban densification of the 19th century completed the urban block, a built perimeter with open private individual cores. As urban saturation ensued, people opted for vertical expansion and unit subdivision, which permitted and encouraged a multi-functional fabric and mixed community.

Building lots are usually narrow, a rectangular imprint with its short side facing the street. In time, masonry brick construction dominated the urban vistas. Buildings were arranged around two to four parallel masonry brick bearing walls with wooden floors and masonry/wooden flat roofs. Dwellings are characterized by an entrance *zagüán*, or foyer; an interior patio, defined by a gallery or corridor; and a cistern. In the single family, single story unit, the living/dining facilities are usually located adjacent to the entrance; the sleeping quarters are on the back, parallel to or around the court. Kitchen and bathrooms are located usually in the middle or in the back.
Façade treatment is rich and layered. A parapet defines the roof territory which is inhabitable. Single and multiple cornices and bases provide continuous registration lines. Light and cross-ventilation are provided through the numerous linteled doors and vanes. Balconies and breastworks act as room extensions and as transition zone between the public and private realms. These elements are the common vocabulary of San Juan, yet their varied articulations distinguish the individual dwelling and enrich the city.

"Dije en mi carta anterior que se parecía esta ciudad mucho a Cádiz, aunque las constantes lluvias y humedades no permiten el esmerado cuidado que en la apariencia de las casas se observa en la antigua Gades. Pero las casas de ésta, tienen, como las de aquella, azoteas o terrados espaciosos, y aunque su altura es bastante menor, la cuesta que la ciudad hace la presenta como de dos edificios.

Son muchas las casas de uno y dos pisos; pero más de la mitad son, según las llaman aquí, terreras, y en mi concepto las que más comodidades tienen, si bien en las horas de brisas son las menos favorecidas. Todas con pocas pero extensas habitaciones, de altos techos; suelo de ladrillos o bien de ajustadas tablas, patios grandes con profundos aljibes, y persianas en ventanas y puertas, puesto que el calor sofocante no permite el uso de cristales." \(^4\)
Public Space. The Laws of the Indies framed the development of the city around a network of urban spaces. The complete urban space network endows the city with a sense of continuity and uniformity.

Plazas. The individual plaza is the magnetic nucleus of each barrio, a source of personal pride and identity.
Plaza Colón, entrance foyer to the city, occupied a perimeter block on the eastern extreme of the city, just within its principal gate. Plans for the transformation of the plaza into two residential blocks in 1816 were soon dismissed. Plaza Santiago, named after the city gate, changed its name to Plaza Colón, after its famous statue of the Discoverer, which was publicly presented in 1893, in commemoration of the 400th anniversary of the discovery of the Island. The eastern edge of Plaza Colón was defined by the city walls and Santiago gate. The northern and western edges were defined by building blocks; and the Municipal Theater, constructed in 1824, fronted the plaza from the South. The partial demolition of the city walls in 1897 opened up this urban space indefinitely to the East. The Old Casino, now Government Reception Hall, eventually redefined the eastern edge of the plaza.

Plaza Colón still remains the entrance to Old San Juan; primary roads Luis Muñoz Rivera and Ponce de León empty into this plaza, one of the two public transportation terminals of the city. The plaza, recently reconfigured, does not respond or protect effectively from the sometimes
inclement weather; its sectional design visually disconnects parts of the public space from its surroundings. Furthermore, it is far too distanced from the activity on its northern edge. The plaza is somewhat activated by the western mixed-use commercial and residential built edge and the continuous influx of people arriving at this point. The Municipal Theater, though a strong physical presence, is irregularly used, and thus, a blank edge. The Old Casino is the only structure not fronting the street immediately, an object floating within its individual field. Both its urban disassociation and unique program establish a less successful eastern definition of this urban space.

PLAZA SALVADOR BRAU

Plaza San Francisco was one of the original city squares associated with religious institutions; in this case, the Church and Monastery of the Franciscan order, completed in 1670. Originally linked exclusively with the convent’s religious activities, the plaza was used sporadically as market and other public functions. San Francisco Plaza physically interrupted La Tanca Street and compensated the considerable sectional change with an ample stairway. By the turn of the
century, economic and political forces prompted the division of the Plaza, in order to connect the street segments. Unfortunately, the Church of San Francisco, life and blood of this urban space and one of the few examples of Baroque architecture in San Juan, was demolished.

The existing plaza, renamed Salvador Brau, occupies the lot that once belonged to the Church. Baldorioty de Castro School, replacing the original Franciscan monastery to the North, faces la Tanca Street, giving its back to the plaza. The built block defining the western edge of the plaza, once a theater, now a commercial establishment, faces San Francisco street, as does the Franciscan Chapel adjacent to the plaza. Only the mixed-use built southern edge, with commercial functions at ground level, enlivens the area. The plaza offers the necessary shade and street furniture (particularly the domino tables) that attracts its regular clientele.

**PLAZA DE ARMAS**

The main square, also known as Plaza Mayor, Plaza de Armas, and Plaza de la Constitución, was, according to the Laws of the Indies, the starting point
of city development. Four streets define its boundaries. Since its conception, large civic buildings activated this urban space: the cabildo; the Real Intendencia, a structure reconstructed in 1853, over the foundations of a military barracks; and the Diputación Provincial, located at the northwestern corner of the plaza. The latter, on a lot once occupied by the cemetery, which traditionally was located next to the cathedral, was acquired in 1849 for a public market and later for rental housing. By 1872, a proposal for a new government dependency, the Diputación Provincial and Instituto de Segunda Enseñanza, was approved.

Currently, the plaza is certainly the most active and dynamic urban space in Old San Juan. Both government institutions, City Hall and Department of State, and mixed-use commercial/residential establishments activate the area. Modern constructions on the southern edge have disregarded the city’s urban guidelines, outpassing the city’s height limits. The stronger southern spatial definition, reduced to blank walls, fails to reinforcing the sectional exchanges that characterize the old construction. Solar protection is nonexistent.
PLAZA DE LAS MONJAS

This plaza, probably the oldest urban space of the city, predetermined the early urban configuration of San Juan. Two religious institutions, the Cathedral and the Convento de las Carmelitas, activated this nodal space, which is surrounded by roads on its four sides. One of these, Caleta de San Juan, physically and visually connects the Cathedral to San Juan gate. Like most of the urban decisions guiding the planning of this city, the connection is by no means arbitrary. San Juan gate was the arrival point for those ships temporarily stationed. In gratitude for a safe trip, sailors would immediately head to the holy place. An open space North of the Cathedral was also part of this urban space network, now private parking space.

Plaza de las Monjas is currently activated by the Cathedral and the Convento Hotel, the modern, yet respectful rehabilitation of the Church and Convent. The commercial establishment framing the southern edge of the plaza faces onto Cristo Street, denying the presence of the urban space. Fortunately, the recently inaugurated Children's Museum, located West of the Plaza, between Luna Street and Caleta de San Juan, enlivens the remaining edge. Generous
natural shade has converted this small square into a veritable oasis.

**PLAZA SAN JOSE**

The urban space South of the Dominican Church and Convent is one of the oldest of the city. San José Church, second oldest church erected in the Americas, and its convent are the most important architectural landmarks of this urban space. Occupying the same block as the Dominican complex, the square is defined on only two sides by vehicular access, San Sebastián and Cristo Streets. The remaining three edges, originally only residential, now accommodate commercial, transportational, and recreational functions as well. In 1940, residential units immediately West of the square were demolished to allocate parking space. The sound definition was irrevocably lost, until the construction in 1992 of Plaza del Soportal.

**PLAZA DEL SOPORTAL**

The Commemoration of the 500 anniversary of the discovery of America was celebrated in 1992. Large urban projects were conducted and inaugurated for the festivities.
including an ambitious recovery and development of urban space in Old San Juan. The master plan connected San José Church in Barrio Ballajá to the ports along a series of paths and places, including Plaza del Soportal, Plaza del Quinto Centenario, Plaza Beneficencia, and Plaza Ballajá. Existing urban spaces were rehabilitated and incorporated into the spatial sequence, including Paseo de la Princesa and Casa Blanca.

The plazas del Soportal and Quinto centenario, projects designed and developed by Rivera Alejandro Architects, have transformed and activated the once deserted northwestern section of Old San Juan. The site of these plazas, once exclusively residential blocks, was demolished in 1940 to leave way for parking provisions. In addition, the new proposal recognizes the traffic problems affecting the city and provides an underground 3-story parking area, accessed on the North by Boulevard del Valle Street.

Pedestrian vertical circulation to and from the parking area collects in Plaza del Soportal, named after the massive arcade separating it from Plaza San José, which it faces. Two major plazas, San José and Quinto Centenario, and two institutional buildings, the Old Military Hospital and the Bishop’s
Redefining the Public Realm

Palace, currently the League of Art and residential units, respectively, define the East, North, West, and South edges. The wide arcade, which provides adequate definition of San José Plaza, and a slight sectional change, inadvertently separate Plaza del Soportal from the Street.

PLAZA DEL QUINTO CENTENARIO

The new Plaza del Quinto Centenario occupies what were once two residential blocks, until demolished for parking in 1940. Surrounded by the monumental Ballajá Barracks to the West, the Dominican Convent to the East, Plaza del Soportal to the South, and the Old Cemetery beyond the northern city walls, this 5-level urban space, symbolizing the 500 years since the discovery of America, completes what had been for half a century a desolate spot. Unfortunately, both public institutions give their backs to this urban space. Notwithstanding some unique attractions, including a level fountain, a controversial gigantic sculpture, and unparalleled views of the Ocean, the plaza is merely a path, not a stop, within the spatial sequence.
PLAZA DE BENEFICENCIA

Plaza de Beneficencia, a small block at the end of San Sebastián Street, is defined by three public institutions, the Military Hospital, Ballajá Barracks, and Casa Blanca, the former residence of Juan Ponce de León, to the East, North, and West, respectively, with residential built edge running along the South. Neither of the aforementioned institutions face directly into the plaza, which blends with Plaza Ballajá to the North. In addition, vehicular access is presently restricted or impossible around the plaza.

PLAZA BALLAJÁ

Plaza Ballajá acts as frontal patio to the gargantuan Ballajá military barracks constructed in 1863. Larger than any of the city’s urban blocks, the Barracks, used as such during the Spanish and American occupations, was left abandoned for years, and has been recently rehabilitated as a museum. Two additional monumental institutions further construct the urban space: Asilo de Beneficencia and the Old Asylum. Immediately West, the Asilo de Beneficencia, erected in 1844 to house the elderly, handicapped,
and poor, currently houses the Institute of Puerto Rican Culture. Further North, the Old Asylum, now Fine Arts School, faces the Morro grounds and the majestic Atlantic Ocean, the natural environment required for this specific program. The numerous civic structures, including the barracks, the hostel, the asylum, and the hospital, characterized this barrio as primarily institutional. The space stagnates from its own exclusivity.

Peripheral Plazas. Continuous foreign attacks and invasions, particularly the Dutch occupation in 1625, propelled immediate fortification of the Spanish ports in America. Old San Juan was one of the few colonies to be totally walled-in. As early as 1638, the urban perimeter of the city was defined by a massive system of walls, accessible only at three points: San Juan gate to the West, San Justo to the South, and Santiago, the "land gate", to the east.

The irregular walled perimeter, conforming to the topographical definition of the city, accommodated numerous bastions, projections within a fortification that allowed wider firing range. In time, these spaces were appropriated by the public for their personal use. These smaller plazas, a large urban necklace around the city, make up the second formal urban spaces of the Old City.
PLAZA LA ROGATIVA

La Rogativa, a small plaza South of Luna Street, is a perfect example of the peripheral urban space. The city walls define this small urban pocket, bounded to the North by Luna Street and a built edge, mostly residential. An added attraction is its symbolic significance as a reminder of the valiant women that defended the city from foreign attack.

The large defense bastion immediately South of la Rogativa and across San Juan gate was the site of the original city fortress. Currently the Governor's Mansion, the palace and grounds are strictly private.

PARQUE DE LAS PALOMAS

Immediately East of La Fortaleza, a peripheral urban space is defined on three sides by built structure: Hospital de la Concepción to the West, the Old Palacio Rojo and residential lots to the North, and Cristo Chapel, landmark structure at the end of Cristo Street, bounds the eastern entrance to the park. The Hospital de Nuestra Señora de la Concepción was founded in 1524 by Pedro de Herrera. The
structure served as well as Grammar School and as residence of Luis Ponce de León. In the 17th century, D. Ana de Lanzós converted the house into the first nunnery of Puerto Rico for the Carmelitas Order. Cristo Chapel, erected 1773-1780, commemorates the miraculous rescue of a jockey who nearly dropped to his death at that point. Commonly called Parque de las Palomas, “pigeon park”, the urban space has a most unique attraction, as its name implies. Park closes at night as a safety precaution.

Promenades. A series of linear sequences have been defined throughout the city, interconnecting the various open spaces and institutional buildings in a continuous public network, the most popular being Paseo La Princesa.

PASEO LA PRINCESA

A most important urban space, La Princesa promenade runs beyond and against the city walls, commencing its trajectory at Barrio La Puntilla and culminating at San Juan gate. The original promenade dates back to 1853, connecting the Old Presidio and Customs House. The area between the wall and the boulevard was developed as the First Botanical
Gardens of the Island. The northern edge was completely defined by the city walls and presidio, a structure originally erected in 1837, whose program predisposed its location beyond the walls. The southern edge of the boulevard underwent continuous intervention. The original urban scheme of La Puntilla, dating back to 1849, proposed 36 mixed-use blocks, six of which would line up along Paseo La Princesa. The narrow lanes and small blocks proved inadequate for the new uses of the sector. The urban reform of 1865 consolidated most of the original blocks into larger units. This physical composition facilitated the imminent transformation of this sector into an industrial/storage zone. This area was once again intervened in 1960, when most of the existing blocks were demolished in order to provide parking space for the city. The existing parking lot of la Puntilla proves a poor southern definition.

The rehabilitation of the Paseo and Presidio, project helmed by Arch. Miguel A. Carlo, reactivated this desolate corner of the city by connecting it along the city wall and through San Juan gate to the existing spatial sequence within the city walls. The Presidio houses now the offices of...
the Puerto Rican Company of Tourism, and plans for the redevelopment of Barrio La Puntilla are being considered.

**Perimeter Plazas.** The walled perimeter defined peripheral urban spaces within. The intense saturation of the Old City and an ever-increasing urban expansion forced the imminent destruction of the city walls in 1897, from San Cristóbal fort all the way to the southern city gate, San Justo. As a result, many inner urban spaces died within the newly undefined expanse.

**PLAZA DE HOSTOS**

Plaza Colón, previously discussed, was redefined by the Old Casino. The space around San Justo gate underwent necessary interventions. Three proposals were presented between 1891 and 1895, all of which introduced a new urban space. Ramón Laredo Padrós’s version was adopted. The present Plaza de Hostos stands in its place, a small urban oasis, surrounded by streets on its four sides and loosely framed by adjacent built structures, including the Post Office and Customs House. This area is activated by its regular clientele and an adjacent pedestrian strip used frequently for fairs and markets.
**Open Grounds.** The rich web of public spaces encompassed by the city walls is not limited to formal plazas and promenades. Open grounds on the northwestern tip of the city, the natural foreground to San Felipe del Morro Castle, were mandated by defensive considerations, which required unobstructed surveillance of surrounding grounds.

**MORRO GROUNDS**

Since the American occupation, the Morro grounds have been used for recreational purposes. Privately controlled and exclusively used during the early 1900s by the American military groups housed at Ballaja Barracks, then called Fort Brooke, the grounds provided specialized diversions: swimming pool, golf course, baseball field, and basketball and tennis courts, the latter two currently operative and accessible to the public. With the local administration at helm, the Morro grounds were open to the public for passive recreation. Recent questionable preservationist indulgences disposed of the popular tree-lined promenade in lieu of a majestic forecourt to the imposing
Pedestrian Streets. A number of streets have been appropriated by the public, from stepped streets and narrow alleyways to deadends. Two residential stepped streets grace the western edge of the city: Escalinatas de las Monjas and del Hospital. A natural deadend, the Southern extreme of Cristo Street, has been transformed into an outdoor café; another such space has been defined along a strip of San Francisco Street, nestled between Cristo and San José streets, originally reserved as parking for municipal/state officers. Of these, Callejón del Toro and Cristo Street are by far the most successful, the former perhaps the single public space servicing the close-knit Santa Bárbara community, the latter located at a strategic location, at the intersection of major commercial streets, Cristo and Fortaleza, and activated by two popular destinations, Parque de las Palomas and Cristo Chapel.

CALLEJONES

A series of narrow alleyways, or callejones, extend North-South along the eastern edge of the city: Callejones del Toro, del Tamarindo, de la Capilla, and del Gámbaro. These narrow pedestrian alleyways,
effectively protected from the sun, are natural commercial routes.

Public Institutions. The public experience is further enhanced and extended into the interior of many a public building, including the public gardens of Casa Blanca and the sculpture garden of La Princesa.

CASA BLANCA

Casa Blanca was the official residence of governors until 1783, Military engineers office until the Spanish-American war, 1898, and presently houses government offices and a museum. Its public gardens, strongly defined by residential edges acts both as destination and link between the Paseo la Princesa and the network of plazas on the northwestern corner, including Ballajá and Beneficencia.

This collection of urban spaces are all richly intertwined in a public tapestry, acting in unison to define an experiential and spatial stage for public interaction and exchange.

2 Ibid, p.17.
3 Ibid, pp.13-1
Redefining the Public Realm
Introduction. The walled city of San Juan could not accommodate the growing population and specialized functions. Beginning in the XVIth C., but predominantly during the early 1900's, three urban sectors developed beyond the city walls: La Puntilla - Marina, the industrial and port sector; Puerta de Tierra, a working class community and military sector; and Santurce, the suburban expansion of San Juan.

Urban Disposition. Santurce, the geographical center of the San Juan Metropolitan Area, located immediately Southeast of the original settlement, is a peninsula completely surrounded by bodies of water: the Atlantic Ocean to the North, the Martín Peña Channel to the South, San José Lagoon to the East, and San Juan Bay to the West. Five hills run East-West, defining an accidental topography that expands over 12.8 sq. km. Historically, the flatlands, particularly those bordering existing lagoons and channels, consisted of marshlands.

As early as 1519, the large peninsula then called Cangrejos, was the natural land route connecting the capital to the mainland. Bridges were erected across San Antonio and Martín Peña Channels. The road that connected these, running lengthwise across the peninsula, defined a linear urban configuration still evident today. The first two centuries saw little development along that main road or Central Avenue. By the late XVII th C., Cangrejos had attracted a number of settlers. A small chapel, San Mateo de Cangrejos, was erected to service these first settlers. Located at the center of the peninsula, atop one of its prominent hills, and adjacent to the Central Avenue, San Mateo Church, first architectural landmark of the city, determined and incited subsequent urban development of the surrounding territory. In 1773, Cangrejos was recognized as an independent settlement, subdivided into five administrative units, called barrios. The early settlers lived off subsistence agriculture and fishing; an irregular topography and multiple accesses encouraged smuggling as well. With a population barely approaching 53 families, the Santurce of the XVIII th C. was characteristically a rural expansion of the walled city.

Responding to demographic pressures, rising land values, and health considerations within the Old City; and referring to the urban expansion examples in the mainland (Barcelona (Cedr6 Plan, 1859) and Madrid (Castro Plan, 1860)) and neighboring La Habana (1863); the late XIX th C. witnessed the definite transformation of Santurce into
Redeining the Public Realm

the suburban extension of the metropolis, as such recognized by the royal decree of 1862. The neighbors of Santurce, a small dominant white population aided by a large number of freed negroes, mulattoes, and slaves, lived off grazing and sugar cane production. A public transportation network, consisting originally of beast-driven carts, unified the nascent neighborhood as well as connected the capital city to the colonial town of Rio Piedras. Steam engines, called trolleys and inaugurated in 1880, substituted the cart, and immediately brought closer the existing fabric.

Dramatic economic shifts following the American occupation of Puerto Rico in 1898 rendered the existing agricultural economic model, the coffee industry, which was immediately substituted by the viable sugarcane production, non-profitable and obsolete. The aforementioned shift drove thousands of mountain dwellers to the coastal towns, particularly the large metropolis, in search of jobs.

The urban population percentile of the island doubled from 1899 to 1930, 14.6% and 27.7%, respectively. The demographic/urban/architectural composition of Santurce reflects the changing trends: a proletariat settled the neighborhoods North and East of the Central Avenue, including Alto del Cabro, Campo Alegre, Condadito, Pozo del Hato, Bayola, Minillas, San Mateo, Pulguero, Chicharo, San Juan Moderno, Machuchal, Loiza, Seboruco, Maria Moczó, Herrera, and parts of Barrio Obrero; a wealthy, affluent sector resided along the North and West of Central Avenue, the sectors of Sagrado Corazón, Monte Flores, El Condado, Parque, and Miramar; a working class concentrated South of the Central Avenue, including the barrios of Gandul, Figueroa, Hipódromo, Meillia, and Bolívar; a squatter community along the southern marshlands, specifically Tras Talleres, Marruecos, and Buenos Aires; and military bases at both eastern and western extremes of the city: Las Casas, bordering San José Lagoon, a military training camp during WWI, and Isla Grande, located along San Juan Bay, carried the civic and military airport of the city.

Steam engines were replaced by electric trolleys during the first decade of this century; servicing the linear urban development of Santurce along Central Avenue, now renamed Ponce de León, the trolley consolidated and defined four major foci: Stop 15, intersection of Cerra Street and Ponce de León Avenues, which connected to neighboring town of Bayamón; Stop 17, intersection of Condado Street (now Roberto H. Todd) and Ponce de León, connected Santurce to Condado area and northern littoral; Stop 22, intersection of the Diego Street and Ponce de León, connected to Condado and Municipal Hospital Complex; and Stop 27, intersection of Ponce de
León, Sagrado Corazón Street, and Borinquen Avenue, where the southern and eastern road networks connected with the central axis of the city. These urban foci were activated by public institutions, predominantly schools and hospitals: Rafael Cordero School, Rafael M. Labra School, Municipal Hospital and Central High School, and Sagrado Corazón de Jesús College, respectively at aforementioned stops.

By 1930, the sugar economy could hardly compete with foreign production. The fall of Puerto Rico’s sole industry, together with an economic depression, imminent World War, plus natural disasters, brought about the radical political, social, and economic transformations that ensued: a dramatic change from an agricultural economy to an industrial state and a shift from an exclusively American government to a representative government helmed by Puerto Ricans. Industries, mostly concentrated on urban centers, propelled massive migrations from rural to urban areas, much like sugar production had done 40 years earlier. The population of Santurce reached a maximum of 200,000 people in 1950, half of which resided in squatter communities, occupying the large marshlands East and South of the city.

Presumably to control the haphazard urban development of Santurce, a new government agency created in 1942, the Planning Board, published the first planning guidelines for the sector, Plan Regional del Área Metropolitana de San Juan (1956). Ironically, several implemented proposals, coupled with a suburban phenomenon, incited the deterioration of the city. These included residential displacement from major arteries, defining a segregated urban composition; height and setback restrictions, which promoted uncontrolled high-rise construction, unsuccessful corporate plazas, and a loosely defined street edge; clearance of squatter communities, the questionable massive relocation of families to temporary housing accommodations and the preservation of natural resources for passive recreation; and an efficient road network, which both isolated and interrupted the existing urban fabric.

Dwelling. Santurce developed as a characteristically residential urban expansion of San Juan. Severe military restrictions within the densely populated walled city and surrounding sectors of La Puntilla-Marina, and Puerta de Tierra, originated the urban expansion. The first settlers, invariably members of the wealthy dominant class, erected large plantation estates and handsome residences, generally masonry/wood framing construction, along the central Avenue, concentrating atop the prominent hills. In contrast, the lower class resided in bohios, thatched structures spread about the Central
Avenue and periphery of the city.

Massive migrations during the early 1900's provoked immediate speculation of the land. The evident absence of urban centers resulted in an undifferentiated subdivision of Santurce into residential lots, none bigger than 400 sq. meters, with complementary infrastructure, following standards determined by the Department of Health. Uniform subdivision imposed some order to an otherwise disassociated, chaotic urban fabric. Two exceptions are notable: spontaneous natural developments on marginal lands, instant communities disconnected from and unresponsive to the existing urban context (squatter communities along the southern marshlands); and unitary governments interventions, undefined public pockets interrupting the continuity of the city (Minillas Government Center).

The urban unity was challenged by new practices encouraged by the Planning Board's 1956 guidelines, particularly the exclusive commercial development along major arteries. As a result, land values rose along Ponce de León and Fernández Juncos Avenues, which prompted lot consolidation, high-rise development, maximum lot occupation, and/ or setback restrictions. The guidelines indirectly defined two principal building typologies: the isolated structure, physically disconnected from adjacent structures or street, allowing for service and parking spaces, front and back patios, light and ventilation; the closed structure, which competely fills the prescribed lot footprint, contains an internal patio, and defines a continuous street edge. Closed structures abound on commercial zones, particularly along both main axes, where you would expect a maximization of lot occupancy; conversely, residential sectors consist of isolated structures, where privacy and parking areas become both commodities and necessities.

The building typologies, both isolated and closed, take various forms, from single, duplex, and walk-ups, to modernist housing blocks and towers. Recurrent building materials include concrete, wood, and steel. Unlike the rich uniform consistency of San Juan, Santurce is characterized by a rich architectural heterogeneity, a telling reflection of the various forces shaping its urban experience.

Public Space. The traditional plaza, a major urban element instituted during the Spanish occupation, served both as symbol of and stage for communal life. Major economic, political, and social factors, including unprecedented urbanization, substantial leisure time of the growing middle class, plus incentive zoning, helped generate new public space forms - the recreation park, and the corporate plaza.
Plaza. The plaza has always been a principal element of the public realm; center stage for man's basic social needs. A natural obstacle to movement, the square captures random commercial activities within its magnetic field. The individual square represents thus the best possible arrangement for communal interaction. They can act as destinations, urban foci that define or strengthen a regional/national identity; temporary resting stops along major paths; and entrance foyers, located at the periphery or at intersection of primary roads.

The few existing formal plazas of Santurce, barely six in our area of study (which is ten times larger than the walled city, where we counted thirteen examples of civic squares), are insipid remnants of the built fabric, due to various factors: insufficient number of them, nonexistent spatial definition, programmatic exclusivity, nonexistent hierarchies, and the absence of an urban center that holds them up and serves the whole city.
PLAZA JOSE MARTI

Activated by Rafael Cordero School, a Neo-Georgian institution erected in 1923, prior to the alignment of Fernández Juncos Avenue, second major axis of the city; Plaza José Martí served and identified the working class community of Barrio Gandul. Besides being a programmatic activator, the school provides both character and spatial definition to the plaza from the South. A North façade of commercial, mixed-use 1 and 2 - stories structures, sitting across the wide Fernández Juncos Avenue, and vacant lots at its southeastern edge; provide inadequate spatial definitions.

Santurce, Plaza José Martí: View from Rafael Cordero School.
Santurce, Plaza José Martí: Ground plan.
Santurce, Plaza José Martí: NE-SW Section, NW - SE Section.
PLAZA CHARNECO

Strategically situated at the southern entrance to Santurce and at the intersection of four major roads, Borinquen, Ponce de León, and Fernández Juncos Avenues, plus Sagrado Corazón Street; Plaza Charneco would be a natural portal and urban center of the city. Several factors have hindered its development: commercial construction on entrance island limits effective public area plus obstructs visual connection; effective width of public space provides no physical protection from surrounding heavily-trafficked streets; plus lacks the destinations that might attract people.
Plaza del Mercado, or market plaza, located at the heart of Barrio Campo Alegre, is the only self-contained public space in our study. The masonry-steel historical construction, attributed to Gustav Eiffel, strengthens the regional identity, activates the neighborhood day and night, and helps define spatially and programmatically the smaller adjacent public clusters. Complementing the spatial definition and scale provided by the market, 1 to 3-story high mixed-use structures create an almost continuous built edge along three of its sides. The consistent combination of residential and commercial uses promotes 24-hour supervision of the public space. A fourth edge, defined bluntly by a 16 ft. blank wall, simply encourages garbage disposal and parking.
PLAZA PACHIN MARIN

A successful residential plaza servicing the immediate neighborhood; Plaza Pachín Marín, located in Barrio Bolivar, is sufficiently defined by the surrounding structures, mostly masonry single-family units and walk-ups, slightly retired from the street edge to accommodate frontal patios and lateral vehicular accesses. Public/institutional buildings, including Madero Carrión School, define the northeastern edge, but unfortunately face away from the plaza, fronting adjacent Angeles Street.

PLAZA RUBEN DARIO

The diminute urban remnant bordering Fernández Juncos Avenue and located as well in Barrio Bolivar, Plaza Rubén Dario is simply a deplorable example of public space. Recent demolitions along the southern edge, vacant lots along the western and northern edges, a physical separation from its northern definition, and nonexistent destination or attraction, have resulted in an unprotected and inert public area. Unlike Plaza José Martí, an effective threshold between Barrio Gandul and the rest of the city, Plaza Rubén Dario instead separates Barrio Bolivar from it.
Ideally located at the geographical center of Santurce, at the crossroads of major road networks, including Ponce de León Avenue, central Avenue of Santurce, De Diego Expressway, largest entrance to the city from the mainland, Baldorioty de Castro Avenue, connecting to neighboring Carolina, and De Diego street, an important North-South link; and surrounded by strong destinations, Centro de Bellas Artes, regional and national theater, Centro Gubernamental Minillas, large government complex, Escuela Superior Central, renowned high school, and Centro Europa, a large commercial urban mall; the location is not simply a destination and urban center, but perhaps the ideal site for the main collective space that might start to reactivate the deteriorated downtown. Plaza Morel Campos, visually disconnected from the main avenue it borders, was conceived as forecourt to the Municipal Theater, loosely defined by the theater to the East and the small Pabellón de las Artes, a café managed by the theater complex, to the West; the plaza spills out endlessly North, towards Minillas Government Center, and South, towards Ponce de León Avenue. The vast public territory is broken up into
more intimate spaces by green areas, furniture, and the majestic fountain. Visually and physically separated from Ponce de León Avenue, and therefore the pedestrian, the plaza is accessed by car, which can conveniently be stationed in an underground parking for 1200 vehicles. Notwithstanding its powerful potential, Plaza Morel Campos is at present a large foyer to the theater, exclusively activated immediately before and after a performance, which generally run on weekend nights, attended by an exclusive clientele.

Recreation Park. Adaptations of royal gardens and grounds of France and England dating back to the sixteenth century, the first parks evidenced in Puerto Rico, for example Luis Muñoz Rivera Park in Puerta de Tierra, are highly formal and geometric in design. In contrast, recent proposals, including Luis Muñoz Marín Park, follow the English landscape gardening school, designed landscapes modeled on a version of a romantic countryside scene. A third type, the recreation park, popular from 1930 to 1965, responds directly to the demands of a growing middle class confronted with substantial leisure time. Both social forces, the strong interest of a young middle class in active sports and fitness, and political forces, environmental policies to
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protect and preserve the ecology, have produced a form of public space that combines urban and suburban elements.

PARQUE CENTRAL

Most important active recreational park in the San Juan Metropolitan Area, Parque Central is located on the southern marshlands along Martín Peña Channel, lands recuperated after the massive relocation of squat communities into public housing projects. The athletic facilities, including baseball and soccer fields, tennis courts and running tracks; are well balanced by a natural setting and an interpretative path along the channel. This green belt, defining the southern edge of Santurce, physically segregated from the city it serves, accessed exclusively by vehicles, and managed and administered by various government agencies, including Fish and Wildlife Administration, Engineers Corps, Junta de Calidad Ambiental, and Departamento de Recursos Naturales; remains one of the most successful outdoor public spaces in our area of study.

Santurce, Parque Central: Ground plan.
Corporate Plaza. Incentive zoning regulations, encouraged by the Planning Board's 1956 guidelines, permitted the addition of significant height and bulk to office developments, predominantly concentrated along Ponce de León and Fernández Juncos Avenues, in exchange for ground floor plazas. Unlike its historical namesake, corporate plazas function primarily as an imposing forecourt for the adjacent buildings, inappropriately designed and managed for public use. The architectural representation of their corporate image, these spaces are devoid of any public amenities, including shelter and seating, that might attract undesirable users. Moreover, and at a larger scale, these desolate outdoor pockets have weakened considerably the strong continuous edge that characterized central Santurce.

Corporate plazas are not a recent phenomenon, though the factors that produced them are markedly different. The first decades of this century witnessed unparalleled
CARIBBEAN TOWERS

The corporate plazas defined at either side of Ponce de León Avenue by residential housing towers Caribbean Towers and Palma Real in Barrio Miramar are a successful example. Buffered by 3 to 4-story fronts, one which does project all the way to the street edge, the full height of the residential complexes is not apparent to the casual pedestrian. Sectional divisions and generous overhangs define a range of spaces and provide basic public amenities, which have converted this spot into a modest commercial/transportation node.

DEPARTMENT OF HEALTH

Department of Health, a construction dating back to 1877, when it served as educational institution, defines the historical version of a corporate plaza. Slightly offset from Ponce de León Avenue in Barrio Figueroa, a perimeter fence protects a front garden that is underused. Neighboring Church and School of Sacred Heart is similarly separated from the street, generously allocating a large open space, now reserved exclusively for vehicles. Unlike Caribbean Towers, where the definition of the corporate plaza encouraged activity and destinations, this obvious destination, comprising
government facilities, educational institutions, commercial establishments and theaters, is weakened by an absence of public consideration.

**Conclusion.** The first urban expansion beyond the city walls was not subjected to the strict planning ordinances acting on the Old City, a condition that permitted the emergence of new public space forms, as well as the revival of older forms. Moreover, the area of study registers a suburbanization/ ruralization of public space, the gradual divorce of public space and the urban fabric it serves, a tendency heightened in the following period: the suburban expansion.
SUBURBAN EXPANSION

Introduction. An unparalleled densification of the urban expanse, with squatter communities now occupying the marginal lands around Santurce; incentives for decentralized industries; more efficient road networks and public transport services; and a technology which permitted mass-produced construction; propelled the inevitable suburban expansion.

At the turn of the century, housing demand was generally resolved through rural land redistribution. Steady migratory patterns, beginning in the early 1900's, produced a dire demand for affordable housing. Law 53 (1921), better known as Hogar Seguro de Puerto Rico, created several working class communities, including Barrio Obrero in Santurce, instant communities for the working class, artisans, and public officials, controlled urban developments that conformed to the existing fabric. The numerous land invasions, squatter communities occupying the marginal lands surrounding Santurce, prompted immediate government intervention to remedy the uncontrolled, unsanitary, and aesthetically undesirable developments. Two federal acts encouraged the development of instant communities to assuage the housing problems confronting the nation: the National Industrial Recovery Act (1933), which authorized federal funding for public housing programs; and the Federal Housing Law (1934), which is largely responsible for the suburban development and unfortunate land encroachment.

The dispersal of anonymous suburban communities, which covered some of the best farmlands in the coastal plains, and decentralization of industrial enterprises, encouraged by the 1947 Industrial Incentives Act to alleviate urban densification, forced a vehicular dependency that demanded more efficient road networks and public transportation systems; which rather than connect the various regions, has divided and interrupted the existing fabric. As a result of this suburban exodus, sectors of the city have fallen into gradual deterioration. With the exception of Old San Juan, revived in the 1960's by preservation activity that has recently attracted a young professional population; proposals for inner city redevelopment have been minimal. Responding to the fierce speculative forces that shaped the first urban expansion of Santurce into a dense gridlocked conurbation, suburban and public housing recall planned picturesque designs, a modern reaffirmation of natural organic patterns. The organic patterns of antiquity were intricate urban fabrics that accommodated both the affluent and the
A distinct programmatic character, residential use; uniform social composition, either extreme of the social scale; and physical urban disassociation, an urban order foreign from and unresponsive to the traditional layout; sponsor such segregation. This privatization is emphasized by the design, consisting of detached single-family units with frontal distance, and unaccessible (read private) meandering road networks.

The Federal Housing Administration, public entity created in 1934, provided mortgage insurance to local banks for loans on privately built houses, and defined construction guidelines, to assure the marketability of the product. Levittown, one of the earliest and most influential suburban developments in the Island, constructed around 1950, introduced the assembly-line production methods that characterize such developments. Conversely, the Puerto Rican Housing Authority, public agency created in 1938 to implement the federal housing program, is responsible for approximately 58,241 units (7.2% of occupied dwellings in the Island) spread over 338 public housing projects distributed across Puerto Rico.

Dwellings. Modern housing development was revolutionized by mass production techniques in the 1940's, with the advent of new construction materials, power tools, prefabricated house components, and specialized skilled labor, which permitted the construction of instant communities. Standardized building types, mainly reinforced concrete, rectangular, one-story flat-roofed structures, have homogenized the suburban fabric. Standardized public housing types, include the detached single-family, row-housing, duplex, walk-up, and tower complex. These generic housing types strictly reproduced standard prototypes developed and widespread in the United States, completely disregarding the existing urban vocabulary.

Public Space. The new industrial economy fostered a large middle class that could afford and that demanded a piece of the "American Dream", a parcel of land providing private outdoor space. Generous federal aids (Federal Home, Farmers Home, and Veterans Administrations) encouraged the suburban exodus of the middle class. The inner cities, domain of the working class and poor, fell into gradual deterioration. Without middle class political support for the public amenities, scarce public funds were redirected for other uses.
During this period, two new public space forms, the suburban schoolyard and the shopping mall, emerge. The evident functional zonification of the modern city, from exclusively residential neighborhoods to industrial centers, demanded a similarly exclusive commercial complex - the shopping mall, possibly the most successful and widely used public space nowadays.

**Shopping Mall.** The suburban shopping mall, which concentrates popular commercial establishments, food courts and recreational amenities, was largely responsible for the demise of downtown shopping area. There are numerous precedents of clearly bounded shopping areas before this century, from the medieval marketplace to the Victorian arcade. Invariably, however, these responded directly to an urban context. The modern shopping mall is located generally on the outskirts of the city, adjacent to and accessible from superhighways, a massive free-standing object set in the midst of a large parking expanse.
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PLAZA LAS AMERICAS

Largest commercial center of the Caribbean, the monumental Plaza las Américas, located in the suburban sector of Puerto Nuevo, readily accessed from Las Américas Expressway and Roosevelt Avenue, has undoubtedly become the most popular public space in the Island. Consolidating commercial establishments, recreational facilities, and soon inaugurating office spaces, within a protected, air conditioned environment, with ample parking space; the center offers and provides more than the basic linear commercial arrangement: a series of communal spaces that host a variety of informal eating areas, exhibitions, and special events. Shopping malls enhance city life by encouraging public participation and interaction. However, they are never as accessible, spontaneous, or versatile as the traditional square.
Playground. In order to ameliorate conditions within public housing projects, government policy advocated provision of playgrounds for sports and active games. These activities, apparently responding to the basic needs of residents, are themselves social controls, channeling the energy of the people with services defined by another class. In order to accommodate multiple, active recreational uses plus simplify maintenance, hard paved surfaces proliferated.

NEMESIO CANALES

The plan of Nemesio Canales, public housing project located immediately West of Plaza las Américas, is an internalized residential pocket consisting of two circumscribed walk-up unit rings, which define a central open space with three basketball courts and baseball field. The vast space is loosely defined by a perimeter fence. The built fabric, narrow reinforced-concrete walk-ups, a blank wall facing the open grounds, are arranged in parallel, loosely defining a green area within. These desolate green lawns remain barren, poorly maintained, and simply underused.

Conclusion. Planning trends after 1945 completely ignored any existing urban context. The suburban expansion, a literal adoption of the planned picturesque movement, encouraged the privatization of life. The newly-segmented fabric necessitated similarly specialized public forums. The shopping mall, the contemplative park, and the playground, have substituted the traditional civic square.
Redefining the Public Realm
SITE INFORMATION

Introduction. Unsatisfied with a suburban experience, the young professional class is gradually rediscovering the benefits of an urban life, which had dwindled following the suburban exodus. Santurce, centrally located within the Metropolitan Area, an heterogenous blend of uses and people, regional public institutions and recreational centers, is clearly a potential rival center to Old San Juan. Haphazardly developed throughout the years, not conforming to any specific urban plan, the city is characterized by a shortage of public spaces, and particularly, a large urban center that could unify the disparate pieces together, define a sense of regional identity, and provide for man’s basic human needs.

Barrio Minillas, an almost exclusively public pocket within the densely residential and commercial fabric of Santurce, could potentially be that center. Occupying the geographical center of the region, equally accessible from all sectors; sitting atop a prominent hill, strong visual reference or landmark; defined by primary vehicular accesses, which means readily accessible by vehicle; comprising large civic functions, including a Government Center and Municipal Theater; and covering government-owned public territory, which facilitates drastic intervention; Barrio Minillas is a natural urban focus.

History. Located atop one of Santurce’s natural promontories, Látimer Hill; adjacent to one of the early public institutions in Santurce, Instituto Provincial de Segunda Enseñanza (1877), now Department of Health; and bordered by Central Avenue; Barrio Minillas consolidated as a residential neighborhood in the early 1900’s. The secondary roads, fingers from Central Avenue into the residential core, are slightly askewed, possibly responding to the topography. The gridlocked layout of Barrio Minillas is already absent in the Porto Rico Railway Light and Power Co., plan (1928); substituted by meandering interiorized and segmented passages, corresponding to the area servicing the Municipal Hospital Complex, which consisted of at least five structures: Medicine and Surgery Hospitals, Asylum, and two administrative buildings. Of these, only one structure, a five - winged Neoclassical monument along De Diego Street and fronting Minillas Government Center, remains standing. Another public institution, the Central High School, a Spanish Renaissance U-shaped, three-stories structure constructed in 1925 and credited to Adrian C. Finlayson, still commands attention along Ponce de León Avenue, which it fronts. This area, which evolved as an important institutional and civic center of the
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Metropolitan Area, was serviced by two trolley lines: one line connecting Old San Juan and Río Piedras, and one connecting Santurce and Condado along Del Parque Street. This center soon attracted retail stores and banks, particularly after the 1956 concessions permitted by the new planning guidelines, defining a strong street presence along De Diego Street and partially along Ponce de León Avenue. The period 1960 - 1980 dramatically reconfigured the area.

**Institutional Buildings.** The almost complete obliteration of the Municipal Hospital Complex, which moved to Centro Médico facilities in Río Piedras, opened the door for government intervention. A 1954 macro project proposed a large government complex within the heart of Santurce, consisting of thirteen isolated Modernist towers and slabs, facing North towards the Condado area and accessed from North Avenue, present day Baldorioty de Castro, and turning their back to the historical spine of the city, Ponce de León Avenue. The object-like proposal, a glorified public housing scheme, impressively dissonant with the modest residential fabric that surrounds it; poorly defined a barren open space, more often bathed in shadows. A more conservative version of this proposal was inaugurated in 1971. The Minillas Government Center, one of the largest public office complexes on the Island, a 23 million dollar project, consisting of two towers housing the Planning Board, Land Administration, Highways Authority, Public Parks and Recreation, Board and Construction Appeals, Automobile Accident Compensation Administration, and Public Building Authority; occupy the northwestern quadrant of Barrio Minillas. The 17-stories twin towers and a separate 4-stories building, housing the Government Development Bank, all oriented towards the cardinal points, define a large public plaza. The public space, immediately above and disconnected from all the private activity, a 280 space parking area, shops, food court, post office, and other services, plus all the public activity, the dynamic and commercial De Diego street, from which it is offset and forcefully protected by a fence, is a vast empty expanse. Another massive structure, a garage for 850 vehicles, occupies the northwestern quadrant of the neighborhood, adjacent to residences along Canal Street.

The second major public institution on the premises, Centro de Bellas Artes or Municipal Theater, was completed in 1974. Pressed by public demand, government officials considered the possibilities for a large cultural center and recreational urban space in Barrio Minillas. A proposal consolidated the Municipal Theater with two other cultural institutions: Music Conservatory and Escuela Libre de Música. The final design incorporates three theaters in one building, the largest of which seats 2,200 people and is used for drama festivals. Another, seating approximately 800, is used for smaller drama
productions and concerts, and an experimental theater seating 300. The structure, slightly offset from Ponce de León Avenue, faces West into Plaza Morel Campos, which it defines with the help of Pabellón de las Artes, a small café managed by the institution. The plaza, poorly defined by the contiguous structures extends indefinitely North and South, but is sectionally disassociated from its closest activity nodes, Ponce de León Avenue to the South and Minillas Government center to the North. Responding to an estimated 5,000 - 6,000 people working at Minillas, the plaza holds an underground parking for 1,200 vehicles.

Other important institutions, besides Central High School previously discussed, include the newly renovated Banco Popular Building, Minillas Hospital, and Centro Europa, an enormously popular specialized urban mall, consisting of an office tower and lower commercial /retail center at the intersection of Ponce de León and De Diego Streets. The economical success of this enterprise, paired with its public considerations, a continuous street edge that provides a sheltered arcade as well as a tree-lined promenade, may have established a new trend in this area.
Road Network. Barrio Minillas is a natural crossroads. Two East-West through roads, Baldorioty de Castro Avenue, connecting Old San Juan and neighboring Carolina, yet markedly disconnecting our site from southern Condado area; and Ponce de León Avenue, original artery connecting the colonial towns of San Juan and Río Piedras, a partially defunct commercial strip; define the northern and southern edges of our site. North-South through roads, Canals Street, a local residential and mixed-use road servicing Barrio Campo Alegre and connecting to Condado; and De Diego Street, another partially defunct commercial boulevard and medical center that connects Santurce and Condado; define the western and eastern boundaries. De Diego Expressway, roadway link between Las Américas Expressway and the heart of Santurce, has become the major and most accessible entrance to the city. Running immediately under our site, the expressway terminates at the intersection with Baldorioty de Castro Avenue.

Local road network is irregular and discontinuous. The western gridded layout, much like the residential fabric it services, is a remanant from the original fabric. The other roads are service ways leading to convenient
parking areas or direct entrances and exits from the Expressway. These independent accesses have defined an inner service core within the neighborhood, reserved exclusively for and dominated by the automobile.

**Land Use.** Barrio Minillas proper is dominated by institutional buildings, namely Minillas Government Center, Centro de Bellas Artes, and Central High School. Other civic structures in the immediate surroundings include several government buildings, Department of Health, and Government Personnel office, and religious centers, including the Church of the Sacred Heart. The few remaining commercial establishments of Minillas are located mainly along De Diego Street and Ponce de León Avenue; local commercial and mixed-use structures characterize Canals Street. The trend extends to the immediate areas: commercial uses along the major arteries, including Centro Europa and González Padín, with mixed-use and residential along secondary roads. Vacancies have interrupted the strong street edge, once continuous along the street commercial strips, particularly evident at the point the Expressway descends. Furthermore, lot consolidation has permitted enormous constructions
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Open Space. Approximately 75% of Barrio Minillas consists of open space, mostly desolate paved plazas, parking spaces, and green areas. The barren and underused designed plazas of Minillas Government Center and Centro de Bellas Artes have been previously discussed. Parking patches cover a large percentage of the open area, servicing the government center, Central High School, Centro de Bellas Artes, Professional Building, and Public Library. Green open areas cover the remaining lands, acting as: buffers, particularly those green belts along De Diego expressway; spatial definition, the landscaped gardens that help break down the aforementioned paved plazas; edge definition, tree-line by Central High School and one along De Diego Street; and frontal patio, an imposing forecourt to an imposing institutional building, Central High School. Adjacent public pockets include several corporate plazas and frontal patios, vacant lots, plus an immense property to the Northeast of our site, once occupied by the Municipal Hospital Complex, now relegated to parking space.
**Natural Forces.** One of the prominent hills of Santurce, the site provides views South to the Cordillera Central, our central mountain range; a North view of the Atlantic Ocean has been impeded by uncontrolled high-rise development of the northern littoral. The traditional grid, oriented Northeast - Southwest, allows uninterrupted circulation of cold breezes along secondary road connections and between buildings, positioned in the direction of the wind, their narrow sides facing the major axes.

**Developable Lands.** Developable areas include the open areas within Barrio Minillas, the property belonging to the Municipal Hospital Complex, those lands occupied by the Central Government Personnel Office, a mid-block pocket close to our site and adjacent to Ponce de León Avenue; and the blocks fronting Central High School, bordered by América Salas and Hipódromo Streets, Ponce de León Avenue, and De Diego Expressway, that includes the commercial/entertainment establishments of González Padín and Puerto Rico Theater.

**Proposals.** Natural crossroads, developable lands, and major public institutions, render Barrio Minillas not simply a potential urban center, but
the large regional focus of Santurce. Various proposals for the area have been presented in the past decade, all recommending a major reconfiguration of the neighborhood, including the definition and activation of public spaces.

CODESA. Commissioned by the Municipality of San Juan in 1983 for the defunct Corporation for the Development of Santurce (CODESA), schematic development plans addressed several study areas, including Barrio Minillas, where it focused on three sub-zones; Central High and Centro de Bellas Artes, Minillas Government Center, and Municipal Hospital grounds. A preliminary proposal for the government center recommended infilling structures along De Diego Street and around the twin towers to help define both a strong street edge along De Diego Street, now completely interrupted between the center and the beginning of the Condado area, and a more intimate corporate plaza. A scene cut out of a medieval handbook, bridges connect over the parking area and expressway from the corporate plaza to the parking garage and a small park that buffers the residential area beyond. A second proposal reconfigures the land around the Municipal Hospital, ruthlessly densifying
the property, a large superblock with inner open grounds in a symmetrical composition of controlled paths and spaces. A final proposal considers the area comprising Central High School and Centro de Bellas Artes. The complete circumscription of the grounds around Central High and Plaza Morel Campos, nothing more than a compositional exercise acknowledging the need for definition of the public realm and the relative potential of the area, considers but timidly responds to the contradictory axes orienting our site: a NE - SW axis responsible for the traditional layout, and a N - S axis defined by the Minillas Government Center and Expressway.

Leon Krier. Internationally reknowned architect and planner Leon Krier visited San Juan and recommended a Government Forum at Minillas. The proposal suggests thorough densification of the area, particularly along major roads and expressway, which he substitutes by boulevards and avenues, plus allocation for public spaces, one defined by Centro de Bellas Artes, with two new structures and a mysterious rotunda at Ponce de León Avenue. New construction, mostly 3 - 5 stories high buildings, would define a local network, that would reconnect this public pocket.
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The most recent proposal, currently underway, incorporates plans for a major transportation terminal for the Tren Urbano, a light-rail public transportation alternative to alleviate the massive traffic problems affecting the Metropolitan Area. The system, which starts at Río Piedras and runs along Muñoz Rivera expressway, linking to Santurce along De Diego Expressway, plans to ultimately continue along Baldorioty de Castro Avenue West to Old San Juan and East Carolina. The proposed Tren Urbano Station at Ponce de León Avenue, by Plaza Morel Campos, with a likely additional station by the Municipal Hospital lands, provides a major investment and major new access to the area.

A master plan for the area accommodates three public plazas: Plaza Morel Campos, Minillas Government Center promenade, and a proposed office tower plaza defined by the Municipal Hospital; along a spatial sequence that would interconnect the whole barrio. The open spaces would need be activated by commercial and entertainment establishments, both institutional (museum, government), and private (retail); and spatially defined by surrounding built fabric.
mostly low-rise structures.

The preliminary design, a comprehensive densification of Barrio Minillas, defines a spatial sequence commencing at Plaza Morel Campos by Centro de Bellas Artes and culminates at the new office tower plaza by the Municipal Hospital grounds. Plaza Morel Campos will be activated by three major public institutions: the Municipal theater, the proposed Tren Urbano Station along the western edge, and a Children's Museum to the North; likewise, retail spaces and new cinemas will help define the southern edge plus strengthen the edge continuity. The plaza leads directly to a small park defined by a new office tower, 14-stories high, and retail office center three-stories high. Extending over the exit road from the Expressway, two bridges connect the western section to Minillas Government Center promenade. 3-5 stories retail office infill structure will help define a series of open spaces as well as define the edge along De Diego Street. The sequence concludes at the new Transportation Museum and Offices across De Diego Street, which together with the new Government Development Bank tower, a 14-stories construction along Baldorioty de Castro Avenue, a garage and some retail offices, define a series of paths and open areas on lands currently appropriated by the automobile.

**Conclusion.** The potential of Barrio Minillas as urban center of Santurce is well acknowledged, but has yet to be fully exploited. A comprehensive understanding of the local forces (vehicular and pedestrian circulation, climate, topography, wind, urban context) coupled with the basic needs of the people may transform this desolate public pocket into more than simply a public arena, but the definite urban focus of the city, both a rival to the Old City and suburban commercial centers, and model for inner city revitalization.
Introduction. Previous chapters have attempted to understand the various forces acting and shaping plus the relative success of some public forums, from PreColumbian times to the present; a survey that provides the criteria with which to judge and justify the present design proposal.

Recent demographic shifts observe the gradual reurbanization of the dwindling downtown by a class of young professionals. Following the footsteps of Old San Juan, Santurce seems predestined for drastic revitalization and Barrio Minillas is an ideal place to initiate it. Our design proposal suggests the reconfiguration of Barrio Minillas into the definite urban focus of Santurce.

Site Selection. The lands immediately North of Ponce de León Avenue, presently encompassing Plaza Morel Campos, have been selected for our design proposal for two main reasons: accessibility and existing activity. The area is readily accessible to both pedestrians and vehicles, public and private transport, all moving along Ponce de León Avenue, still the commercial spine of the city.
Redefining the Public Realm

Barto Minillas, design proposal: Sections through retail center, plaza and train station, and theater complex.

Barto Minillas, design proposal: Plan.
The area is spatially defined and activated by a major institution, Centro de Bellas Artes, largest and most prestigious theater complex of the Island. The presence of the Municipal Theater might suggest and convey a cultura/recreational character to the area. As observed in the past case studies, institutions effectively define the public world, both spatially and programatically.

The proposal focuses on the definition of the public space, a sequence of paths and places, culminating in a large public arena. The large forum is set back, off the central avenue, in order to incorporate the Municipal Theater. Contrary to the consistent street frontage along the avenue, which Bellas Artes blatantly disregards, the theater faces West to Plaza Morel Campos. To attract the attention of the casual passerby, the design suggests a commanding structure at the end of the plaza, landmark to the public pocket within and reference guide to the observer. The landmark, consisting of a cinema complex/restaurant in our proposal, commands attention both from its relative height, rising above the immediate structures, yet clearly referencing high-rise development not far ahead; and an outer screen for movie projection, literally acting as an urban sign, readily visible from Ponce de León Avenue and De Diego Expressway.
Orientation. The design responds to two main orientations: NE-SW set by the traditional urban fabric, consisting of detached structures oriented lengthwise in the direction of the wind, their narrow edges facing the central avenue, allowing the natural flow of cool breezes along gaps between adjacent structures and along secondary roads; a N-S orientation defined by Minillas Government Center and underground De Diego Expressway. Our design proposal responds to both orientations. The proposed retail center along Ponce de León and the theater complex adjacent to Centro de Bellas Artes are aligned with the NE-SW axis. The train station to the West and some retail shops strengthen a N-S orientation. The former responds to a programmatic constraint. The proposed light rail system, which runs alongside De Diego Expressway, needs to shift as well to the North.
The directions are emphasized by both architectural and landscape elements and components. Tree-lined promenades at either side of the plaza strengthen the directionality of the proposal; more generous shade areas signal temporary stops (food court on retail center and entrance on train station). Likewise, water defines movement plus muffles the noise. An existing sectional change permits the natural flow of water through the theater complex and along Centro de Bellas Artes; a small pool collects at the main plaza, where both streams cross, signaling a partial stop. The built proposal also responds to the main orientations, permitting air flow, visual connection, and continuous pedestrian movement. The built structure defines a large plaza and two large promenades at either end of it.; secondary accesses and smaller open spaces are suggested as well.
Spatial Definition. Relative success of the public realm is strongly dependent on spatial definition. The continuous 3-story high built edge of Old San Juan that envelops the plazas on all four sides was substituted in modern times by a discontinuous and setback street edge composed of detached single family 1 and 2 story dwellings, which poorly defines the public realm. In both cases, a transition zone or threshold is defined between the two realms: balconies, breastworks, and arcades connect them in Old San Juan; a frontal patio distances the two realms on modern examples. Shopping centers define an effective exchange and visual connection that renders the space presumably public, albeit for strict economic considerations.

In our proposal, spatial definition is strictly established by the contiguous structure. The main plaza is defined on the East by the Centro de Bellas Artes and to the West by the train terminal; the outdoor screen of the theater complex and the arcade of the retail center define the northern and southern edges respectively.
Other more subtle definitions are established through level changes (food court), or level changes and vegetation (entrance foyer to train station). To encourage human interaction, terraced elevations front the plaza, permitting physical and visual human exchanges.

Our proposal suggests as well the redefinition of Ponce de León Avenue, perhaps providing a continuous edge and cover for the pedestrian on either side of the avenue.

**Programmatic Definition.** Spatial definition is insufficient to activate the public space. The successful examples of Old San Juan were defined by mixed-use structures (commercial on ground floor and residential above), which activated the plaza during day and night. Major institutions help activate the public space at particular times plus define the character of the space (San José Church and its plaza, the Cathedral and Plaza de Armas). Modern examples suffer from their own exclusivity (shopping centers, recreational parks), servicing an exclusive clientele and providing specialized facilities.

Our design incorporates a variety of uses (commercial, recreational, cultural, transport) at walking distance from each other, interconnected by landscaped paths and plazas. Two major institutions activate the plaza: the train terminal and the Municipal Theater. The latter helps define the distinct character of this urban focus as a cultural/entertainment center; not a rival, but a complement to other urban foci. Old San Juan and Plaza las Américas. That character might even fluctuate, servicing the working population during the day and acting as entertainment center at night (cafés, bookstores, cinemas, theater). Furthermore, it does not contradict the linear commercial development of Ponce de León Avenue; it is merely a destination off it. Several such urban centers, possibly at Stops 11, 15, 17, and 27, might speed the revitalization of Santurce.

**Conclusion.** The thesis examined the local forces that shape the public space in order to develop a set of criteria with which to judge the relative success of them. Those criteria helped us redefine a public forum for our times, that responds to both local forces and user need, within an existing incomplete urban fabric.
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