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THE LISBON EARTHQUAKE IN 1755:
CONTESTED MEANINGS IN THE
FIRST MODERN DISASTER

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INTRODUCTION

Some disasters are considered more important than others with similar impacts. The meaning of a particular disaster occasion is created independent of its consequences. Where there are significant inconsistencies between the impact and the meaning associated with it should be of interest to the social sciences. The focus here is the Lisbon earthquake, Nov. 1, 1755, which can be considered the first "modern" disaster. It evoked a coordinated state emergency response as well as a forward looking comprehensive plan for reconstruction which included mitigation efforts to reduce future disaster effects. Of particular interest here are the circumstances which led to the earthquake being attributed to "natural" rather than "supernatural" causes. Prior to that, earthquakes traditionally had been interpreted as a dramatic means of communication between gods and humans. In particular, such events previously had been explained as indicating some disturbance between earthly and heavenly spheres. The Lisbon earthquake can be identified as a turning point in human history which moved the consideration of such physical events as supernatural signals toward a more neutral or even a secular, proto-scientific causation.

The timing of the Lisbon earthquake made it a topic of discussion and disputation among several intellectuals involved in the currents of European thought which has come to be known as Enlightenment. That intellectual movement, among other things, was characterized by a self conscious break with previous tradition, especially with religious authority. Consequently, in succeeding generations, knowledge about the Lisbon earthquake has often been drawn from these 18th century discussions. Voltaire used the

Lisbon earthquake as a metaphor to attack others, especially Alexander Pope. Pope's Essay on Man (1733-34) contained what Voltaire said was a doubtful philosophy of optimism. Soon after the earthquake, he wrote a Poeme su la disastre de Lisbonne which countered Pope and later used that same event to attack the theodicy of Leibnitz in Candide.

While these attacks were central to the evolution of what has come to be known as the Enlightenment, it is the contention here that the changes in conception of the meaning of the Lisbon earthquake occurred more directly from the emergency response and early reconstruction of Lisbon which was, in large part, initiated Portugal's delayed move toward a modern state. The central figure in that transformation was Pombal, who, for all intents and purposes, ruled Portugal from 1750 to 1777. By structuring the subsequent discussion around a major character, Pombal, there is no intent here to suggest a "great man" theory of social change. Pombal's actions occurred during a period of rapid transformation in Europe and his actions in Portugal was seen by most other Europeans as backward and despotic. He used the earthquake to consolidate his power and to move Portugal out of its backward status toward the beginnings of a modern state. In that transition, Pombal used his political skill and the Church itself to undercut the traditional interpretation that the earthquake as a signal of God's displeasure. In effect, here, the argument will be made that changes in the social structure of Portugal and its modernization was a more determinative factor in undermining the interpretation that earthquakes communicate God's wrath than the intellectual and theological arguments which have come to be characterized as the "Enlightenment." (For a selected

chronology, see Table 1)

THE SOCIAL AND POLITICAL CONTEXT OF THE LISBON EARTHQUAKE

It is contended here that the Lisbon earthquake was the first to register in modern consciousness. There were major earthquakes in Catania, Sicily and in Naples in 1693, but most of Northern Europe was seismically stable. Too, there had been a major earthquake in Port Royal, Jamaica in 1692, which received some attention in Britain since the British governor had tolerated using Port Royal as a base for pirates and privateers to attack the Spanish fleet. But, for most Europeans, earthquakes were something that occurred elsewhere and in the past. When the Lisbon earthquake occurred, it became the focus of attention for the "relevant civilized world" (Kendrick, 1956, p. 25).

Woloch has suggested that the 18th century in Europe was characterized by a multiplicity of states linked together in a pattern of rivalry and mutual recognition (1982, p. 1) And that their rulers sought to promote their sovereignty by amassing power over policy and resources within the state and by competing with other states for influence and territory. Most European countries were undergoing rather dramatic transformation during the 18th century. At the time of the Lisbon earthquake, George II ruled in England; Louis XV in France; Maria Theresa in Austria; Frederick II in Prussia; and Elizabeth in Russia. By those comparisons, Portugal was considered a backwater and irrelevant country ruled by ineptness and indifference. In the first part of the 18th century, Portugal was ruled by John V, 1705-50. He spent most of his reign building monuments and places, funded by gold from Brazil. Much of his wealth was distributed

in gestures of largess and prestige, but wealth made him independent of the court, which he rarely assembled. In 1742, his illness caused the affairs of state to fall increasingly in the hands of churchmen. The major governmental positions were filled by cardinals or priests and the King's confidential advisor was a Jesuit. Their interests were more in maintaining their positions than in furthering adaptation and change. In 1750, Portugal, with a population of less than 3 million people, had an army of clergy, perhaps numbering 200,000. Charles Boxer called 18th century Portugal "more priest ridden than any other country in the world, with the possible exception of Tibet."

(Boxer, 1963, p. 189)

At mid-century, Portugal's colonial operations in Brazil and Paraguay were being undercut by Jesuit control and independent merchants. The British Factory (an association of British merchants with favorable trade agreements) had a major grip on port commerce and on Brazilian gold. Aside from the long term conflictual alliance with British commercial interests, Portugal was not on good terms with France. It was traditionally suspicious of Spain and was not necessarily responsive to Vatican directives.

At the time, Lisbon was perhaps the fourth largest city in Europe, after London, Paris and Naples, with a population of 275,000. It was famous for its wealth. It was full of palaces and churches and, because of commercial activity, it was one of the best known cities in the world since traders, particularly English and German, did most of the business in town. But Lisbon was also known as a city of the Inquisition and was characterized as being a center of superstition and idolatry.

The key to understanding Portugal in the last half of the 18th century and the key to

DOCUMENTO ORIGINAL INCOMPLETO

General and president of the municipal council of Lisbon, a position to which Pombal appointed his son, Henrique, when his brother died. Another brother, Francisco Xavier Mendonca Futado served as governor and captain general of the Brazilian provinces of Grao Para and Maranhao, an area which then covered the entire Amazon Valley. Later, he worked closely with Pombal as Secretary of State for overseas dominion. The involvement of family members was, of course, not unique to Portugal, but it provided a significant clue to Pombal's aspirations for his country and the direction of efforts to reform the country. For example, an expatriate friend, Duke Silva-Tarouca, whom Pombal had known in Vienna, recalled their conversations there and, on hearing of his appointment as minister, recommended to Pombal that "when new dispositions are necessary, they should always be put forward by ancient names and in ancient clothing." In effect, he was characterizing Pombal's future direction - "a policy of reform disguised, when necessary, by traditional institutions and language". (Maxwell, p.9) That stance of using tradition has often been misunderstood by subsequent historians who have generally excluded Pombal from discussions of the Enlightenment or have characterized him as a "despot", without any limiting adjectives. Maxwell, however, in his biography of Pombal, more accurately titled his book "Paradox of the Enlightenment".

THE INITIAL ACTIONS OF POMBAL AS MINISTER

Pombal, in his new position of responsibility, initiated a number of actions intended to strengthen the nation's control of its colonial empire and its domestic economy. When he came into office, there was ambiguity over boundaries in their holdings in South America. In the Treaty of Madrid, (1750) Portugal agreed, in

exchange for Spanish recognition of their river transportation system to relinquish control of Colonia do Sacramento and the land north on the La Plata. The acceptance of the boundaries placed the Jesuit's Seven Missions and their pasture land, long a part of Spanish control, under Portuguese rule. This would require the relocation of the Jesuits and their Indian converts. Pombal argued, in private correspondence, that since Portugal could not supply settlers to populate the vast open lands, it would be necessary to abolish the existing differences between the Indians and Portuguese, to encourage intermarriage and to attract and use Indian labor. Married couples could be sent from the Azores and although slavery was banned in Portugal, the importation of African slaves to the colonies would be encouraged. This contradicted the tenants of Jesuit policy which had been devised to protect the Indians from exploitation by the settlers and to prevent their integration with the Portuguese. The Jesuits believed that the removal of their protection would be disastrous for the indigenous population. Under the terms of the treaty, some 30,000 Indians would be expected to relocate. The Indians chose to resist usually termed the Guarani resistance, and it was not until 1756 when a joint Spanish-Portuguese military force invaded the territory of the Seven Missions and forcibly ended their resistance. This experience reinforced Pombal's distrust of the Jesuits whom he blamed for the resistance.

Pombal's efforts in South America was assisted by his brother, Francisco Xavier de Mendonca Funtado. He had been a member of the Luso-Spanish boundary commission which had decided that the Jesuits must move some of their commission to conform to the new boundaries. Pombal later appointed his brother as

governor of Para and Maranhao in northern Brazil to enforce the implementation of a form of state capitalism, the Grao-Para Company. This company was intended to monopolize the trade of Brazil. This company was not greeted with enthusiasm by Portugese merchants already trading in Brazil, nor was it seen positively by the Jesuits and British merchants. (Pombal also banned independent small merchants who often sold goods to the British.) Objections to these changes were met by rather immediate sanctions. A sermon preached in the Patriarchal church there criticized Pombal's action which he now could label as treasonous since they were now royal laws. The preacher was banished; three merchants involved in the Brazil trade were exiled to Africa and four Jesuits were expelled, and who arrived in Lisbon soon after the earthquake.

Opposition to Pombal's actions in the creation of the Company not only came from some merchants and the Jesuits, but also Pombal's acquisition of power provoked many of the aristocracy to oppose him. Traditionally, the nobility expected that they would be appointed as ambassadors, governors and be given other responsibilities in the royal court. But during his responsibility, Pombal often appointed his family members and friends and publically suggested that titles should be a reward for service, not lineage. By 1777, Pombal had retired 23 titles and created 23, usually to reward merit. By the end of his tenure, one third of the nobility had been changed. (Maxwell, p. 78) Pombal also tried to minimize status differences. As was the practice in other European countries, he allowed merchants to wear swords, which beforehand had been an obvious mark of nobility. On occasion, when state companies were formed, he would appoint some noblemen to boards of directors with the stated hope that they might learn some

relevant commercial skills.

While the nobility in Portugal was relatively small compared to other neighboring countries, they often were at the center of activities to undercut the King or to cultivate his possible successor. After Jose became King, those who were in opposition to him began to center their attention on Maria, his daughter and successor, and Jose's brother, Pedro. Among those giving attention to their court was Diogo de Mendonca, Minister for Overseas Affairs, whose previous power had been gradually eroded by Pombal. In June, 1756, seven months after the earthquake, Pombal came upon some correspondence which criticized his Brazilian efforts. Pombal took the opportunity to arrest and banish Mendonca and replace him with his brother, who was recalled from Brazil. Others involved in the "conspiracy" were two palace Jesuits, a Dutch trader, and a cousin of the King. They were imprisoned, some exiled to Angola and the King's cousin sent to Vienna.

Opposition to Pombal's actions came principally from the Jesuits, whose international viewpoint clashed directly with Pombal's nationalism, merchants who previously had advantages in colonial trade and the aristocracy was distrustful of Pombal's increased power, especially the segment which styled themselves as "puritanos" -that is, those whose blood was not "tainted" by Jewish or Moorish ancestry. Opposition and particularly collaboration among his enemies were sure to evoke action on the part of Pombal. Those "enemies" continued to bedevil Pombal when he had to assume the responsibility for the response and reconstruction of the earthquake.

THE CONSEQUENCES OF THE EARTHQUAKE

The earthquake occurred at 9:30 am on November 1st when many of the residents were at mass. That initiated the first of a series of problems for Lisbon. Sometime later, as a port city, there was also a seismic wave which created additional victims and new damage. There was also a major fire which, by some accounts lasted five to six days, destroyed many building not damaged by the earthquake. And Lisbon was plagued by after shocks, over 500 in the next nine months. Even those who still had housing continued to live in tents. This included the Royal family.

Estimates of those who lost their lives, varied tremendously, some estimates suggested up to 70,000, but perhaps 5,000 to 10,000 might be a more accurate estimate. The deaths cut across social categories. Certainly several hundred priests and nuns were killed and some 20 or 30 of the 40 parish churches were damaged. As for Kendrick (1956, p.26) noted, many died "unconfessed and unforgiven". Since the major impacts were in the center of the city which contained the townhouses and palaces of nobility, perhaps 20 nobility were killed and some of their destroyed palaces contained significant art works and libraries. Being an international city, foreign victims often focused widespread attention. The deaths of the Spanish ambassador, the Head of the English Seminary and the great grandson of the French dramatist, Racine, provided a reason for attention from other European countries. Seventy seven members of the English factory, most of them women, were among the casualties.

The amount of housing damage was considerable. Some estimates suggest that perhaps only 3,000 out of 20,000 dwellings was livable. More certain was the damage to landmark public buildings. The Royal Palace was destroyed, but the King and his

entourage had been at Belem, outside town, where the earthquake caused minimal damage. The Royal Opera House, finished the month before, was destroyed. The Royal Mint, Arsenal, and Custom House were gone. The church of the Inquisition and the church of the Patriarch were damaged. Some of the facilities for the busy port no longer existed and many merchants, including those from foreign companies, suffered significant losses. It was estimated that of the 48 million Spanish dollars losses, 32 million was the British share and perhaps 8 million were losses by Hamburg merchants. Obviously, the extent of the destruction of resources in Lisbon were a severe blow to Pombal's aspirations for Portugal's economic renewal and for new political directions.

The young King whose behavior had already evidenced a disinterest in affairs of state is supposed to have asked "What should we do?" And Pombal is supposed to have answered "Bury the dead and feed the living." (Kendrick, p. 48) That exchange, perhaps apocryphal, indicated a more significant shift in political responsibility. The principal minister was old and ill and the minister with Pombal's previous responsibility could not be found. The King gave Pombal total responsibility for dealing with the emergency response and later for the reconstruction. A few months later when the principal minister died, Pombal assumed his position and the King further retreated into his personal concerns. In effect, Pombal ruled Portugal until 1777 when the King died.

THE EMERGENCY RESPONSE

Pombal's assumption of the emergency responsibility lead to a series of rather decisive actions which could provide a model for subsequent disasters, even more modern ones. Pombal's initial action was to ask the Chief Justice to appoint 12 district leaders

with overarching emergency powers. The first and most immediate task was the disposal of bodies, since there was considerable fear of the outbreak of plague. The day after the earthquake, Pombal suggested to the Patriarch (The head of the church in Portugal) that the best way to dispose of the bodies was to collect them on barges and then to be towed out beyond the Tagus reef and to be weighted down and sunk. The Patriarch agreed and instructed the religious involved in collection of the bodies of this decision. This meant that traditional religious rites associated with death were disregarded. There were a number of emergency measures instituted to insure a continuing food supply. The military provided transportation for produce from the outside and the price of food was controlled. Fishing was encouraged. Some traditional taxes on fish were suspended, if the fish were sold within the impacted area. Ships which were in port at the time were not allowed to leave, until it was determined that their contents could not be used in the emergency.

Housing, of course, was at a premium. The King and his family lived in tents in Belem, outside the city for nine months until a wooden palace was finished. Pombal, although his palace was undamaged, also lived in a hut in Belem. At the end of November, plans for a massive reconstruction were beginning to take shape. A survey was planned; land rents were controlled and laws passed which did not allow landlords to evict tenants. The debris was sorted to salvage materials which would be used in the reconstruction. Initial profiting in wood was controlled and supplies were sequestered. Unauthorized building was stopped which did not conform to the planned reconstruction.

Security became an issue. It is reported that gallows were set up in several parts of

the city as a warning against looting. It was also noted that at least 34 were executed for looting, but as usual, it was claimed that most of them were “foreigners”. Too, early in 1756, the Patriarch announced that excommunication would be the sanction for those posing as priests or nuns in order to get special advantages. It was feared that many persons would leave the city so those in charge of outlying provinces were instructed to send refugees back to the city. A pass system was set up to regulate entrance and exit from the city. There was, as might be expected, a concerted effort to maintain normalcy. The weekly newspaper, published just before the earthquake, kept on schedule.

ON DELAYED ECONOMIC DEVELOPMENT AND THE EARTHQUAKE

Obviously the responsibilities for emergency response and for reconstruction interrupted Pombal’s attempt to make Portugal economically viable and politically strong. In particular, he was concerned as to how the earthquake would be interpreted by others. The day after the earthquake, when he asked the Patriarch for permission to initiate mass burials, he also asked him to stop “alarmist” sermons which were suggesting that the earthquake was a form of divine retribution for the “sins” of Portugal. He was also concerned that the call for devotional repentance might lead to personal withdrawal at a time when the city needed everyone for the tasks remaining. In the succeeding months, he was continually concerned with prediction of future earthquakes as continued punishment. A spate of new predictions came as the first anniversary approached. There were no indications that Pombal was not supportive of the impressive actions of most clergy during the response. Much of the temporary housing and the provision of food became the responsibility of the Church and churches became the center of

temporary facilities for those displaced. One can conclude that Pombal saw danger only in the religious practices and interpretations which might inhibit or delay the reconstruction process.

There were several opportunities in the aftermath to further the economic viability of Portugal. Warships were sent to Brazil, India and Africa to indicate to those lands that trade with Portugal was still secure. Troops were sent to the Algarve to prevent African pirates from taking advantage of trade opportunities during the preoccupation with reconstruction. While taxes were temporarily suspended, a four percent "donation" was levied on all imports. Members of the British Factory objected to that "tax" on the basis that previous treaties would exempt them, but the tax held. Even with these economic concerns, Pombal used the earthquake to further his conflict with Jesuits and the aristocracy.

THE ROLE OF MALAGRIDA

One person who tended to personify all that Pombal had come to dislike was Gabriel Malagrida. Born in Italy in 1689, he had gone as a Jesuit missionary to Brazil in 1721 where he became famous for his fervent sermons and stories that he told about his adventures with Indians. There he had restored decaying churches and established convents. His fame as a saint and a prophet preceeded him when he came to Portugal in 1749. His reputation and his knowledge of the colonies allowed him access to the palace where he became confessor to King John. Malagrida's reputation grew when it was reported the King died in his arms and he informed the Queen that he would also act as her confessor, when her time came. Malagrida returned to Brazil in 1749, traveling on

the same boat with Pombal's brother who was going to assume his administrative duties, but in 1753, he returned from Portugal and attached himself to the Queen Mother. But his influence now evoked suspicion and when she fell ill, he was forbidden entrance to her apartments. Returning to his house in Setubal on August 14, 1754, while preaching a sermon, he interrupted it to announce the death of the Queen. With that prediction verified, his reputation as a prophet was enhanced. Many of those who encouraged him were members of the court who opposed Pombal. Malagrida specialized in holding retreats, which he suggested was necessary for everyone. He espoused hopes of building a retreat house in Lisbon for such occasions.

In the fall of 1756, Malagrida published Juizo da verdadeira causa do toremoto (an opinion On the True Cause of the Earthquake) which was a summary of the sermons he had been preaching for the last year suggesting it was scandalous to pretend that the earthquake was natural event. Approaching the first anniversary of the earthquake he insisted the people of Lisbon had continued on their sinful ways including their love for theater, music, dance, and bull fighting and that their efforts to repent were shortsighted. They were advised by Malagrida that by going to a retreat at a Jesuit house for six days they could be properly instructed about making peace with God. The pamphlet structured the debate in rather stark terms.

Malagrida said: "Learn, O Lisbon, that the destroyers
of our houses, palaces, churches, and convents, the cause
of the death of so many people and of the flames that
devoured such vast treasures, are your abominable sins,

**and not comets, stars, vapors and exhalations, and
similar natural phenomena." (Kendrick p. 89)**

That argument undermined the significant work of the parish priests and those of other orders whose work provided significant service during the emergency response.

Malagrida sent copies of his sermon to Pombal and to members of the Royal Family. He continued his retreats at Setubal, exhorting those who attended with his view on the "causes" of the earthquake.

Malagrida presented a particular problem for Pombal. For the state to act against a Jesuit, Pombal would need a papal dispensation. But for religious orders, turning someone over to state authorities usually was interpreted as an indication of guilt. The route of administrative sanction was too risky for Pombal and he acted with considerable indirection. In May, 1757, he ordered the secularization of civil powers in Para, extinguishing the missions and declaring the Indians free. Jesuits were limited to duties of parish priests. Then when some priests removed sacred images from their churches, they were informed that they were now state property. There was also the charge that the Jesuits were armed. But they claimed their small cannons were only ceremonial. In September, in Lisbon when the royal confessor had been sufficiently alarmed about this tension in the colonies between the state and the Jesuits, he found his access to the King blocked. Then the royal confessor and other Jesuits in the palace were ejected and forbidden to return without the King's permission. Their previous duties were reallocated to members of other orders - Franciscan, Augustians and Camelites. Later Pombal sent his cousin to seek a secret audience with the Pope to push for reform of the Jesuits on the

grounds that they attempted to usurp the power of the Sovereign and that they had an insatiable desire for wealth. In early 1758, Pombal wrote a widely translated tract accusing the Jesuits of attempting to create their own state. And in April, the Pope (Benedict XIV) authorized the Cardinal-Patriarch to reform the Society in Portugal. In May, the Cardinal prohibited the Jesuits from engaging in illegal commerce and, in June, Jesuits were forbidden to preach or hear confessions and their superior was banned from Lisbon. Malagrida appealed to the new Pope, Clement XIII, in the following words;

"What a fatal scene. What a grievous spectacle! What a sudden metamorphosis! The heralds of the word of God expelled from the Missions, prescribed and condemned to ignominy. ...and who does this? Not his most Faithful Majesty, ...but the minister Carvalho, whose will is supreme at court. He, yes, he, has been the architect of so many disasters and seeks to darken the splendor of our Society, which dazzles his livid eyes , with a flood of bigoted writings that breathe an immense, virulent, implacable hatred. If he could behead all the Jesuits at one blow, with what pleasure would he do so? (Livermore, pp. 227-228)

It is assumed here that Pombal was aware of such correspondence.

In September of that year, Pombal took advantage of an incident to further weaken his traditional enemies. The King was returning to Belem late in the evening after an amorous adventure when he was ambushed and shot several times. Although rumors

were circulated that he had been ambushed by some of the nobility, nothing was done for over three months. In December, a Royal decree was issued to create a special court to investigate the attempt and it waived customary legal protection and allowed the court to sentence and execute the guilty on the same day. It also accused certain persons of prophesying the King's death and of conspiring to bring it about. Troops were sent to arrest six titled persons, their families, and servants. Malagrida and twelve other Jesuits were arrested and all of the Jesuit colleges were surrounded by the troops. The two major conspirators were the Duke of Aveiro who the highest ranking noble after the Royal Family and the head of the supreme court and the Marques of Tavora had been a general and Viceroy of India.

A new voice in the political landscape was added when the Casa dos Vinte Quatro, an urban municipal council of the guilds expressed the desire of the "people" that the guilty should be punished, that the trial should be held in secret and that the King should be permitted to use torture in this circumstance. Later the Casa exhorted the King to "withdraw unwonted clemency". On January 12, 1759, sentence was pronounced and executions held. On a scaffold in Belem, various guilty parties were beheaded, broken on a rack and burnt. The whole scaffold was then set alight and the ashes scattered in the Tagus river. This event certainly overrode the usual prerogative of the nobility when the ashes of both nobles and servants were mingled in their final resting place. This event received considerable attention over Europe since such high ranking nobles had seldom been punished in this way, this episode reinforced the view of others that Portugal as "backward".

The ecclesiastical "suspects" still presented a problem. The priests were confined to their colleges. The Pope agreed that any priests involved in the assassination attempt could be tried in secular court, but hoped the King would not condemn the whole for a few. However, the Pope's message was never delivered to Pombal. On September 3, 1759, the anniversary of the assassination, a royal edict was issued identifying the crimes of the Jesuits. It outlawed them from Portugal. Jesuits then in Portugal were sent to Rome and those in Brazil arrived there by sea the following year. That is, all except Malagrida and others in prison. Malagrida was to be condemned as a heretic by the Inquisition. Since the extant Inquisitor-General was not too keen to supervise this proceeding, Pombal's younger brother, Paulo de Carvalho, took his place. Pombal himself drew the indictment in which Malagrida was charged with planning regicide from his house in Sebutal. In addition, he was charged with heresy for some of his writings, not, however, his discourse on the causes of the earthquake. He was found guilty on January 12, 1761, and was publically executed on September 20th, slightly less than six years after the earthquake. The rather spectacular auto do fe lasted all day, two hours of which was devoted to reading his sentence. Malagrida was strangled and later his body was burned and his ashes thrown in the river.

THE RECONSTRUCTION

One of the actions of Pombal took initially after the earthquake as to appoint several military engineers and surveyors to make inventories of property right and claims and to assure that the sanitary and leveling operations were carried out safely and with dispatch. The engineers were also charged with drawing up plans for a new city. The

waterfront area and the zone back from the river Tagus to Rossio Square were leveled and the rather steep western slopes were reduced. Streets were fixed at 60 feet in width - 50 ft for the roadway and 10 ft. for sidewalks. Street crossings were set at right angles. To both speed up reconstruction and to encourage local enterprises, efforts were to prefabricate and standardize materials which would be needed; ironworks, wood joints, tiles and ceramics. In addition, a wooden frame, called a gaiola, which had flexibility in the event of future earthquakes, as mandated for all construction and a standardized facade for the new buildings was required. These construction innovations were used later in the construction of new buildings at the University of Coimbra and in the construction of a new town on the Algarve on the border with Spain. In the plans drawn for reconstruction, there was the decision to put a great square on the waterfront as the centerpiece of the plan. The new square, placed on the old Royal plaza was and still is called, the Praça do Comércio - the place of commerce. That naming reflects the direction that Pombal had for the future of Portugal.

The ongoing reconstruction of Lisbon was only one part of the transformation efforts of Pombal. Wolloch (1983, p.4) has suggested that, in the 18th century, a ruler's success could be measured by developing a monopoly over coercion, taxation, administration and lawmaking. In the 1760's, Pombal was concerned with a series of "solutions" to continuing problems. In particular, there was the creation of a new system of public education to replace Jesuit education and a new curriculum more attuned to educating others than just nobility. There was the assertion of national authority in religious and church administration. There was strengthening of the state's taxing

authority, military capabilities and security. In the 1760's, Pombal established the office of general supervisor of police of the court and the Kingdom. In all cases, the legislation necessary for these new measures was codified and systemized into law with the reasoning outlined and justified. Colonial policy continued to be given attention. Pombal's brother joined the cabinet as minister of overseas dominion and moved quickly to create a new commercial company to control the major centers of Brazilian commerce and production in the sugar producing regions. In 1761, a royal treasury was established which was a key element in Pombal's effort of rationalization and centralization. Pombal appointed himself as inspector general and the aim of the treasury was to centralize jurisdiction for all fiscal matters and to be responsible for different sectors, from customs houses to the allocation of royal monopolies. This completed his reform of revenue collection. Finally, certain changes were made in the Inquisition. The Inquisition's police powers had been given to the police in 1768 and its book censorship roles was assumed by a royal commission that year. In 1769, Pombal removed Inquisition's power to act as an independent tribunal and all of the property confiscated by the Inquisition was transferred to the national treasury. Public auto da fe were eliminated as was the death penalty.

In June 1775, the reconstruction of Lisbon was far enough along to hold a dedication of the Praca, adorned with the equestrian statue of Jose I. For the three day celebration, the unfinished buildings around the square were filled in with wood and canvas to give the impression of what would be the final effect. Several days after the celebration, Pombal sent Jose a series of reflections in which he described their "joint"

accomplishments. These included improvements in literacy, industry, culture and Pombal indicated that the square indicated prosperity- that "observant foreigners did not fail to remark about the millions spent in public and private buildings after the earthquake. They saw a most magnificent square surpassing all others in Europe." (Livermore, 237-238)

In 1776, Jose fell ill and died February 24, 1777. The next day, when Pombal arrived at the palace, Cardinal de Cunha met him and told him "Your Excellency no longer has anything to do here." (Livermore, p.238). Twenty years before, as an archbishop, de Cunha had issued, at Pombal's request, a pastoral letter against the Jesuits. But, with Jose's death, the opposition that Pombal had faced during his tenure coalesced quickly and with certain vengeance. Pombal spent the rest of his life defending himself and his past accomplishments against charges of abuses of power. In 1781, Dona Marie I intervened in the persistent attacks and declared that Pombal was deserving of "exemplary punishment" but because of his age and feeble condition, no formal proceedings would be initiated. Pombal died the following year. In one sense, his enemies finally won but most of the changes he had made prepared the transition which was necessary for Portugal to move toward a modern state. Maxwell concludes that "The story of Pombal's administration is, therefore, an important antidote to the overly linear and progressive view of the role of the eighteenth-century enlightenment in Europe and the relationship between the Enlightenment and the exercise of state power." (p.161).

FINAL COMMENTS

The Lisbon earthquake can be called the first modern urban disaster. Previous disasters in the Western and Christian world had usually been interpreted as communicating some message from God to Mankind. But, in the Lisbon case, a “natural” explanation for the cause of the earthquake emerged. That explanation was not related to the growing acceptance of new geologic explanations about earthquakes, although some of those theories were beginning to be generated. Nor was that explanation related to the philosophical challenges to religious authority, which characterized the intellectual climate which has come to be known as the Enlightenment. Nor was this natural explanation challenged by most of those in positions of authority in the Church of Portugal. The change in conception occurred since the earthquake happened in the context of the development of a more centralized and “modern” state of Portugal. No other European state going through the state building process had to deal with major destruction in their capital city. But Portugal has never been considered a useful case study in discussions of state building in the 18th century. Key figures in the 18th century, of interest to later historians were those whose actions seemed to strengthen liberty rather than those who used power. In that context, Pombal is usually identified with abuses of power rather than for his accomplishments of organizing the first modern governmental response and reconstruction as well as his insistence in defining the earthquake as a “natural” event. That suggests, however, that a “natural” explanation of disaster is closely tied to the state building process.

In his monumental work on the “civilizing” process, Norbert Elias (1982) focuses on

generalized causes of state building. In particular, he traces the struggles among the nobility, the Church and the Princes and later the emergence of the bourgeois. In that struggle, Elias says, there is the gradual accumulation of land, then money, in fewer and fewer hands. This tends toward a monopoly, which he labels the "royal mechanism". In this process, what was previously the private power of individuals gradually becomes public or state power until one social unit, the state, is able to control more and more opportunities. The process is enhanced by gaining control of both physical violence and taxation. The development of centralization and monopolization means that what was previously done by military or economic force would now become amenable to planning by the state.

One cannot infer that Pombal substituted a naturalistic interpretation of the earthquake since, at the time, no well differentiated "scientific" theory existed. It is possible that Pombal might have been familiar with Thomas Burnet's The Sacred Theory of the Earth (1684) which argued that, since God operated through natural processes, the Biblical flood could be explained in scientific terms. Burnet's theory also had an explanation for earthquakes and his theory was being widely discussed in England when Pombal was there, and it was also a topic of interest for Enlightenment intellectuals. There are indications, however, that Pombal did act to introduce new ideas and structures in his reforms. He was interested in movements in Europe, such as Gallicanism and regalism, which give more autonomy to "national" churches against Rome and the Pope. In his educational reform, at the university, he sought to modernize the faculties of theology and cannon law. Two new faculties were created, mathematics and philosophy,

which included the new natural sciences, based on observation and experiment. In his transfer of censorship from the Inquisition to the state, he appointed persons more identified with the reformist ideas so that books by Locke and Montesquieu previously banned were released, although books that contained "irreligion" were still not allowed. One of Pombal's closest collaborators in educational and ecclesiastical reform, Antonio Ribeiro dos Santos, commented on the paradox of the authoritarian and enlightenment strains in his actions "(Pombal) wanted to civilize the nation and at the same time to enslave it. He wanted to spread the light of the philosophical sciences and at the same time to elevate the royal power of despotism" (Cited in Boxer, 1961, p.191). This suggests that, in the context of institutional change, seldom is there a direct confrontation between equivalent ideologies, but instead some interpretations begin to erode and, over time, other ideologies are substituted. In this way, Pombal's action cleared the way for the later substitution of more naturalistic interpretations.

Extending those ideas, more recently Stallings (1998) has argued, that most useful for sociological theory is the idea that disasters create disruption in social routines. The state has increasingly assumed more and more control over those disruptions since disasters create a threat to social order. One of the major functions of the state is to promote political order and social stability since predictability is necessary for decision making and strategic planning. Stallings says "That is the states's disaster role is to minimize the disruptions to economic routines caused by disaster (without adversely affecting business in the process) and to restore those routines as quickly as possible when they are disrupted." (1998, p. 142)

The identification of unique turning points in history cannot be easily determined by comparative and/or longitudinal analysis, but the case study of the Lisbon earthquake suggests certain reasonable conclusions. Other than encouraging individual acts of charity and devotions, supernatural interpretations of the “causes” of disaster undercut organized efforts to deal with an emergency response. Supernatural interpretations also undermine collective efforts to engage in longer term reconstruction. With the development of the modern state in Europe in the 18th century, notions of the collective responsibility of the state for the welfare of “citizens” and for the continuity of the society make the Lisbon earthquake a test case for these changes. Changes in the social structure of Portugal, especially changes in the political and economic sectors, made the earthquake especially problematic. The Lisbon earthquake was the first modern disaster in which the state accepted the responsibility for mobilizing the emergency response and for developing and implement a collective effort for reconstruction and in order to accomplish that, traditional notions of supernatural causation were opposed, rather harshly. This opposition was not directed toward the Portuguese church itself, but directed toward those segments of the church with more international and universal aspirations, the Jesuits. This shift in the interpretation of the meaning of disaster did not stem from sets of ideas concerning the nature of authority and liberty which has come to be identified as the Enlightenment but it stemmed from the efforts of Pombal to build a Portugal which was economically and politically more secure in the context of a competitive Europe where countries were also going through similar developments. It is ironic that Portugal which was defined by most other countries as being backward and superstitious would be the

location of the emergence of naturalistic interpretations.

In *Candide*, Voltaire uses the Lisbon earthquake as the backdrop for criticizing optimism which he saw then as prevalent among intellectuals, such as Leibnitz, the entire work is filled with ironic images and situations, and includes a discussion between Candide and Pangloss of the sufficient cause of the earthquake as well as a discussion with a member of the Inquisition who is arguing for an interpretation of the earthquake as a consequence of sin. Voltaire says "After the earthquake, which had destroyed three fourths of Lisbon, the Portuguese pundits could not think of any better way of preventing total ruin than to treat the people to a splendid auto da fe." Voltaire, thus, missed the ultimate irony - that the last victim of the Inquisition was Malagrida who had insisted on a religious interpretation of the earthquake .

FOOTNOTES

- 1. Major sources of details on the career of Pombal is Maxwell's excellent biography (1995); on the reign of Jose I is Livermore (1976) and on some aspects of the earthquake is Kendrick (1956)**

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