

## The Urban System in the Central Valleys of Oaxaca

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### **Abstract:**

In this article, we explore the nature of the urban system in the Valley of Oaxaca as it has developed in the late 20th century, when Mexico joined the General Agreement on Tariffs and Trade (GATT) (1986) and negotiated the North American Free Trade Agreement (NAFTA) with the United States and Canada (1994, with final aspects of the agreement going into effect in 2008). Both the events exposed Mexico and, by extension, Oaxaca to powerful external economic forces. Global integration significantly altered the urban and regional economic systems in the central valleys of Oaxaca. The conquest of Mexico by Spain in the early 16th century brought Mexico into the global economic system centered in Europe. For most of the five centuries since the arrival of the Spanish, Oaxaca was part of what Immanuel Wallerstein described as the periphery, that is, regions whose primary role in the system was to provide raw goods and labor to core regions such as Mexico City, Madrid, London, and New York. This article describes how the integration of Oaxaca into the world economy that resulted from Mexico's entry into GATT and NAFTA altered the nature of the urban system in the central valleys of Oaxaca. These changes significantly increased the role of Oaxaca City in the extraction of resources from the state into the world economy and increased wealth disparities in the central valleys.

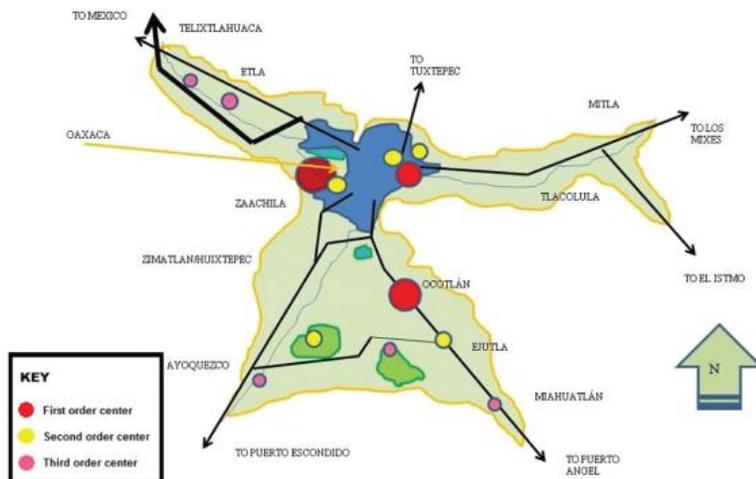
**Keywords:** Mexico | Oaxaca | Central place theory | Globalization | World systems | Development

### **Article:**

The central valleys of the state of Oaxaca have drawn anthropologists and archaeologists since before World War II (Malinowski & de la Fuente, 1982) and recently thereafter (Caso & Bernal, 1952; Beals, 1975; Dennis, 1987; Flannery, Kirby, Kirby, & Williams, 1967;

Paddock, 1966; Taylor, 1972; Butterworth, 1962). Malinowski was intrigued by the regional market system and how it linked valley communities to each other and to the surrounding mountainous hinterland. The central node in that system was the weekly market in the city of Oaxaca. This event served to distribute resources throughout the regional system and provide some consumption goods for city residents. In many ways, the Saturday market remains the central node of the regional economic system. Ralph Beals, Martin Diskin, and Scott Cook (Beals, 1975; Cook & Diskin, 1976; Cook, 1982, 1984) demonstrated how the regional market system served not only to distribute goods throughout the region but also to slowly draw surplus value into Oaxaca City, reinforcing the position of the city and its elite. However, in comparison with many central markets in cities throughout the world, it is fairly remarkable that the Oaxaca City Saturday market served to distribute resources throughout such a large region, much more so than many or most central markets.

In the late 1960s, Kent Flannery and Joyce Marcus, with a group of their colleagues and students, began a series of surveys in the Oaxaca Valley and surrounding regions to better understand the nature of demographic shifts and the resulting rise and fall in importance of regional centers in the preconquest central valleys of Oaxaca. They found that although Monte Alban, located above the current city of Oaxaca, has been a population center since 500 B.C.E., this part of the central valleys of Oaxaca has not always been the dominant location. Since the period known as Monte Alban II (100 B.C.E.–C.E. 200), the urban center located at the juncture of the three arms of the Oaxaca Valley has been an urban center in a regional system that in different historical periods was more or less connected to the wider political and economic world. The Aztecs arrived in 1440, establishing a garrison on the site that would become the modern city. The arrival of the Spaniards in 1521 and the initiation of construction of Santo Domingo in 1522 immediately brought the valley into the world market through Mexico City, Vera Cruz, and Madrid. Local populations shifted in response to political and economic pressures so that there were times when the center of power moved to other regions of the central valleys (Flannery & Marcus, 1976; Blanton, 1978; Blanton, Kowalewski, Feinman, & Appel, 1981, 1982; Kowalewski & Finsten, 1983) (Figure 1).



**Figure 1.** Monte Alban III. Compiled by the authors from Blanton et al. (1982) and Kowalewski et al. (1989).

Murphy and Stepick (1991) demonstrated that, since the European conquest, Oaxaca City has effectively served as a center for capital accumulation. Nonetheless, its relative importance has fluctuated with the degree of integration to the world outside the valley. The core's control of Oaxaca and its resources waxed and waned through the centuries because the region's isolation made it difficult to control and administer. For example, Cortez never visited the valley, even though it was part of his land grant. During the early colonial period, Oaxaca was relatively isolated, as the valley and region produced few resources of global significance, and primitive transportation made it difficult to ship low-value goods out of the valley. Prior to the building of the railroad link to Mexico City in 1892 (Chassen, 1990) and the completion of the Pan-American Highway in 1950, travel to and from the valley was difficult, costly, and dangerous. Direct control was only attempted during those times when the valley produced a high-value product, such as cochineal dye or gold.

Oaxaca's isolation changed in the mid-18th century, when a growing textile industry in Europe created a high demand for cochineal dye from Oaxaca. The dye trade produced a wealthy elite in Oaxaca City (Murphy & Stepick, 1991) and financed the construction of magnificent religious structures such as Santo Domingo in the city of Oaxaca (Esparza, 1996). Note, though, that the accumulation of such surplus was through extraction of a single product rather than through the extraction of many goods for distribution to other cities or regions of Mexico. Then the War of Independence of 1810–1820 and the development of artificial dyes plunged the region into a recession, increasingly isolating Oaxaca from the national and international economies. From this period until World War II, the city was the center of a regional peasant economy, with few goods flowing in or out of the region into the world economy.

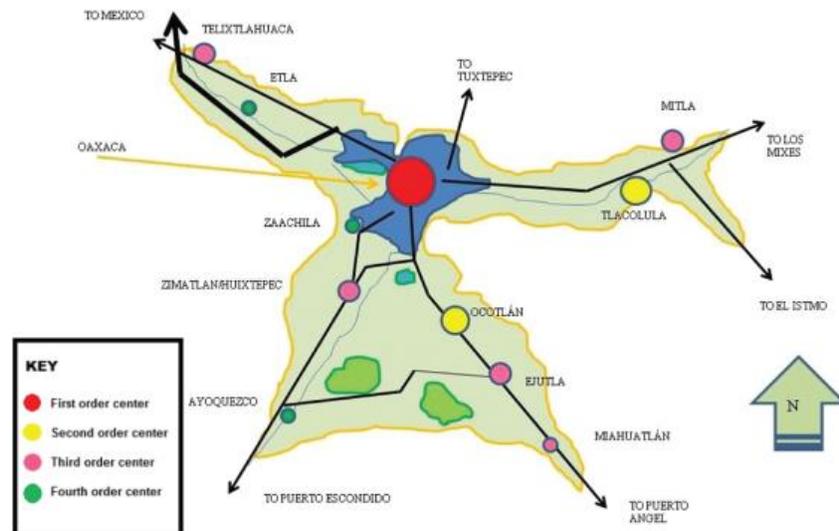
World War II changed all this as Mexico and Oaxaca were drawn into the Allied effort in multiple ways, from the introduction of castor plants for the production of oil for the war effort to providing labor for the *bracero* program, which sent workers to the United States from Oaxaca and other regions of Mexico to work in the agricultural industry. This change is most clearly symbolized by the paving of the Pan-American Highway into Oaxaca City. Today, major new roads have cut travel times within the valley and into the mountains (Rees, Murphy, Morris, & Winter, 1991); the trip to Mexico City now is 6 hours by car rather than 9–10 hours of curves and trucks on a two-lane road.

With Mexico's entrance into the General Agreement on Tariffs and Trade (GATT) and the North American Free Trade Agreement (NAFTA), the core began to exert more and more control over the periphery and the resources available in those regions. By the late 20th and early 21st centuries, Oaxaca's main contribution to the world system was the export of labor and the import of money flowing back to Mexico in the form of remittances. Banks flourished, as did state services and transportation. Also as in the past, as Oaxaca became more connected, centralization

increased, as did relative disparities in standards of living (Kowalewski, Murphy, & Cabrera, 1984; Murphy & Stepick, 1991).

### Central place theory for Oaxaca

During the time of Mexico's post–World War II boom, the city of Oaxaca consolidated its position as the most important urban center in the valleys and, by extension, the entire state of Oaxaca (Figure 2). It was clearly what Christaller (1966) had in mind when he spoke of a central urban place.



**Figure 2.** Oaxaca valleys, 1950–80. Compiled by the authors.

*Central place theory*, as developed by Walter Christaller and used by economists, sociologists, anthropologists, and archaeologists, holds that nested patterns exist between larger important and more “central” urban places containing more higher-order goods, such as banking, wholesale activity, regional markets, and important governmental and religious functions, and lower-order places to the point where communities on the periphery can only provide residents with lower-order goods, if any. The model was used by G. William Skinner to analyze the development of cities in late imperial China (Elvin & Skinner, 1974; Skinner, 1977), by Carol Smith in her analysis of markets and social systems in Central America (Smith, 1976a, 1976b), by Eric Jones to analyze the development of class-based patterns of social networks in Ecuador (Jones, 2003), and by Richard Blanton and his colleagues in their analysis of Monte Alban and its hinterland (Blanton et al., 1982; Kowalewski, Deinman, Finsten, Blanton, & Nicholas, 1989).

Geographically, the valley of Oaxaca is typically divided into four subregions (Tamayo, 1950; Moguel, 1979; Acevedo, Luisa, & Restrepo, 1991) or valleys: (a) Etlá to the northwest, (b) Tlaxiaco to the east, (c) Ocotlán and Ejutla to the southeast, and (d) Zaachila and Zimatlán to the southwest. The Rio Attoyac, the major water source for the valley, flows out of the mountains at the head of the Etlá Valley south and east to where Oaxaca City is now located; here the river

turns south and west into the Zaachila–Zimatlán Valley. The river makes these two regions the most agriculturally rich of those studied. The importance of the Etna Valley is enhanced by its role as the major communication link between the valleys and Mexico City, a role that has only increased since the building of the Pan-American Highway in the mid-20th century. The Tlacolula Valley is fed by the Rio Salado. This river is much smaller than the Atoyac, and although some high-value farming occurs along its banks, the relatively steep rise from the river to the piedmonts requires most farmers to rely on rain-fed agriculture. Ocotlán and Ejutla lie in the driest of the valleys. No significant permanent source of water runs through this valley. As a result, agriculture is almost entirely based on rainfall and its vagaries. Until the completion of the road to Puerto Angel on the coast in the 1970s, this was one of the most isolated valleys in the region. At the intersection of these subregions lies the city of Oaxaca (Oaxaca de Juárez), which, since the time of Monte Alban's founding, has served as a central gathering point for commercial, religious, and political activity in the surrounding region (Blanton et al., 1981; Murphy & Stepick, 1991).

## Methods

In 1997, Arthur Murphy led a research seminar at El Instituto Tecnológico de Oaxaca that undertook a study of urban centrality and hierarchy in the central valleys of Oaxaca. The goal was to understand the urban system's structure and how it had or had not changed as a result of Mexico's increasing economic integration into the world system through GATT and NAFTA. We took our methodological cues from the work of Richard Blanton and his colleagues, who found that measures of population combined with Christaller's theories of markets and centrality (Christaller, 1966; Skinner, 1977; Smith, 1976a, 1976b) could be used to understand changes in relative importance of the various cities. In this article, we consider five major sectors (what Christaller calls *ambient*) involved in regional economic interactions, or, for analysis,

1. housing variety and urban services such as water, sewer, garbage, paved streets (i.e., infrastructure).
2. commercial establishments, including restaurants and hotels (i.e., retail).
3. available transportation and communication services (i.e., modes of interaction).
4. financial services, including banks, money exchanges, wire services (i.e., finance).
5. administrative services (i.e., government).

These five ambients enabled Cristaller to capture the most important economic aspects of society that have to do with cultural geographic interaction—at least prior to the substantial role of the Internet. In following this, our selection leaves out manufacturing and some of the information production sector.

In this article, we consider the eight district capitals located in the valleys, Oaxaca de Juárez, ETLA, Tlacolula, Ocotlán, Ejutla, Miahuatlán, Zaachila, and Zimatlán, and two population centers that are not district capitals but lie at the periphery of the valleys: Telixtlahuaca and Ayoquesco. The majority of these communities can be found within a 30-kilometer radius of Oaxaca City and currently function as bedroom communities for the capital. The furthest city is Miahuatlán, approximately 100 kilometers distant from Oaxaca City.

Cities tend to serve as nodes for the transfer of wealth and goods from the hinterland into a wider commercial network that links regional, national, and international populations. Commonly, this system is measured in the flow of goods and services between cities. It is reflected in a city's population level and the services available within each locality. The simplest way to establish a hierarchy between cities is through population counts or by enumerating the services available to locals. This type of ranking, however, does not necessarily reflect the complexity of the relationships between urban centers. Level and types of services can provide much more information about the relative prominence of urban centers. However, it is important not only to take into account a service's coverage—for example, 70% with potable water versus 30% without water—but also to consider the degree of specialization and complexity of particular services (Héctor, 1993).

Between 1998 and 2000, an evaluation team consisting of at least two of the coauthors of this article and students from the Instituto Tecnológico de Oaxaca's regional planning program visited each of the communities under consideration. On the basis of these visits, and using official data from the Instituto Nacional de Estadística Geografía e Informática (Mexico's equivalent of the U.S. Geological Survey and Census Bureau in a single agency) and other sources, such as state and municipal data and reports, each individual scored each city on a scale of 0–100 for each ambient, where 0 represented no or only basic services in the sector and 100 a full range of services (e.g., types and numbers of financial institutions, types and numbers of commercial establishments). Then each city was given an average based on the independently compiled individual scores (see Table 1).

**Table 1.** Ranking of Urban Centers in the Valleys of Oaxaca

Subregion	City	Housing and Urban Services	Commerce	Transportation Services	Financial Services	Administration	Total Score	Rank
1. <i>Note.</i> Scores compiled by the authors from field observations and official data.								
	Oaxaca de Juárez	52	98	78	22	94	344	1
Tlacolula	Tlacolula	38	61	30	4	29	162	3

	Mitla	31	43	28	1	30	133	6
Etla	Etla	42	42	32	3	40	159	4
	Telixtlahuaca	51	44	35	1	25	156	5
Zaachila and Zimatlan	Zaachila	38	29	13	1	31	112	9
	Zimatlán/Huixtepec	40	24	22	3	17	106	10
	Ayoquezco	30	19	13	4	18	84	11
Ocotlan and Ejutla	Ocotlán	46	32	19	3	27	127	7
	Ejutla	38	30	17	1	30	116	8
	Miahuatlán	49	57	30	5	45	186	2

## Results and discussion

As Table 1 demonstrates, Oaxaca City stands out as the location with the highest rank on the five ambients considered in this article. This is what would be expected of an urban-based regional market system as it is drawn even more tightly into the national and international economic network. As the core centers of the national and international system strengthen their control of the periphery, capitals grow in importance, as they become loci for the extraction of goods, surplus value, and labor. In the rest of the results section, we present and discuss each of the ambients.

### Housing and urban services

This ambient, or sector of economic interaction, is a function of types of materials used in housing construction; for example, these include wood scraps, concrete block, red brick, tin roof, or tiled roof. It also includes the availability of services such as potable water, sewers, and trash and garbage recovery. In general, housing of more permanent materials such as concrete block, tiles, and rooms with modern plumbing indicate an increased connection to the national market through Oaxaca City. These goods are only available through wholesalers located in the city who have direct contacts with manufacturers and suppliers in Puebla, Mexico City, Guadalajara, and beyond. Thus a striving for “modernity” in housing often fueled by remittances specifically designated for housing construction has led to the abandonment of local construction materials such as adobe and thatch. Similarly, demands for electricity and water have required communities to become more closely linked to the National Water Commission and the Federal Electric Commission, each of which is centered in Oaxaca City and works diligently to ensure its costs are met and profits flow toward Mexico City. As Table 1 demonstrates, a cluster of centers score in the high 40s and low 50s. The aggregate figure, however, obscures the fact there was a

major difference between those cities scoring above 50 and the remainder, including Miahuatlán, which scored 49. Those below 50 were in that category because they lacked the most rudimentary forms of sanitary services. Oaxaca City's advantage came from a predominance of houses made of permanent materials, accessible sanitary services, and some primary water treatment facilities. In the cases of Ocotlán, Zimatlán, and Etna, for example, their relatively high rankings reflect their developing roles as bedroom communities for the city of Oaxaca. Middle-class families moving into those communities have constructed dwellings of modern materials with individual sanitary services for their houses.

## **Commerce**

A rotating dendritic market system centered on Oaxaca City's Saturday market has been a central economic feature of the state of Oaxaca since before the opening of the Pan-American Highway in the late 1940s (Cook & Diskin, 1976; Murphy & Stepick, 1991). Such a system is one in which networks radiate from a central location to a series of regional markets (second-order markets), from which additional networks radiate to third-order and fourth-order markets. Along each dendrite in the network, markets occur on designated days of the week and culminate, in the case of Oaxaca's central valleys, in the large Saturday market in Oaxaca City (Waterbury, 1970, 1975; Cook & Diskin, 1976). As Table 1 illustrates, it is possible to identify four levels of markets in the communities studied. First is Oaxaca de Juárez; second are Tlacolula and Miahuatlán; the third-order communities are Etna, Tleixtlahuaca, and Mitla; followed by Ayoquezco, which was our only fourth-order market studied.

Oaxaca City is today, and has been since before the conquest, the commercial center of the valleys and the region beyond. The five secondary markets not only represent regional market centers that serve as the collection and distribution points for goods moving from the national and global market to various regions in the valley and state; they also serve to bring raw materials and produce back to the central market for redistribution. Typically, these markets occur either on Sundays right after, or on Fridays right before, the Oaxaca City Saturday market. Mexico's entry into GATT and NAFTA has increased the city's and state's global economic linkages, increasing Oaxaca de Juárez's relative importance as the commercial center in the central valleys. This dynamic has also decreased the importance of the second-order markets that tend to feed directly into the Saturday market in Oaxaca City and that are located in district capitals, as well as the importance of third-order market towns located in smaller communities providing limited goods and services. This trend has been exacerbated by the opening of new roads and highways into the state's hinterland in the late 20th century. This new infrastructure makes it easier and more profitable for retailers to make their purchases from major wholesalers and retailers in Oaxaca City rather than from distributors located in the regional centers (Rees et al., 1991). Each week, merchants from smaller communities travel to Oaxaca City to make their purchases at the larger wholesalers, where they find more variety and better prices bypassing the traditional sources in the district capitals. In the past, major wholesalers in Oaxaca City would provide a representative with goods, and, at times, transportation, commissioning them to travel

to the second- and third-order markets to vend their wares. The present shift has resulted in the closing of many district distributors and the almost total elimination of the profession of roving regional vendors.

### **Transportation and communication services**

The state, valley, and city of Oaxaca have always been described as isolated and difficult to govern. Until the post-World War II period, the drive to Oaxaca City was arduous, and even with the paving of the section of the Pan-American Highway, it took longer than 9 hours of hard motoring from Mexico City to reach the state capital. The completion of a rail line in 1892 did little to provide secure or frequent services (Chassen, 1990). Within the valley and state of Oaxaca, most roads remained unpaved until the mid-1970s or 1980s. Access to regional or state administrative centers required long treks by foot or mule for many communities. Remoteness does not mean, however, that Oaxaca is or has ever been a region with little or no communication between valley communities. Within the arms of the central valleys, people have moved about and back and forth from Monte Alban and Oaxaca City for millennia. For example, Uzzell (1976) documented the daily bus commutes of students from a rural community outside of Etila to and from Oaxaca City in the early 1960s.

Recent decades have witnessed a significant increase in the number of paved roads within the valley; from the valley to national and international cities such as Puebla, Mexico City, and Veracruz; and into the mountains that surround Oaxaca de Juárez. Such developments have increased the importance of Mitla, Matamoros, Huixtepec, Mihuatlán, Telixlahuaca, and other regional centers as conduits of goods and services to and from the state capital. With the opening of a highway from Oaxaca to Puebla where it joins the highway from Veracruz to Mexico City, Oaxaca's position as the commercial hub for goods and services flowing in and out of the state and farther south has only increased.

Historically, Tlacolula and Huixtepec, district capitals in the valley, served as regional markets where goods were gathered and distributed to the Sierra Juárez, the Mixe, and the Isthmus via Tlacolula, and to the Sierra Sur via Huixtepec. More recently, with improved transportation, these centers have become bedroom communities for individuals working and studying in Oaxaca City. An increased number of direct bus and taxi linkages to the city reflect this change in status. Mitla and Mihuatlán do continue to serve as gateways to regions of the state that are relatively isolated, although increased road construction that is opening the Mixe and Sierra Sur with all-weather roads may cause the status of Mitla and Mihuatlán to diminish in the future, as goods are transported directly from Oaxaca City into those regions.

### **Banking and financial services**

As Mexico's participation in the global economy increases, financial services are a growing percentage of the nation's economy; today they represent approximately 22% of the nation's GDP. Until NAFTA, the sector was dominated by national banks whose regional branches

provided limited national and international services. For example, as late as 1970, it was difficult for a person with an account opened in a branch of BANAMEX (Mexico's largest bank at the time) in Oaxaca to gain access to the account in Mexico City or Guadalajara. Today most of Mexico's banks are owned by foreign holding companies; most notably, BANAMEX is owned by Citigroup, and BANCOMER is owned by the Spanish group BBVA. With the entry of foreign investment and the development of a national banking network, most of these banks have branches and ATMs throughout the country, making it much easier for banks to tap into the growing flow of remittances from the United States to Mexico as well as commercial activity.

The valley of Oaxaca mirrors this trend. In the 1980s, it was still necessary for most individuals and businesses to travel to Oaxaca City to complete their banking, and only a few of the banking houses in Oaxaca would convert dollars into Mexican pesos. Oaxaca continues to be highly centralized in financial services; in 2000, there were more than 20 different types of financial institutions located in Oaxaca de Juárez. These included banks, brokerage houses, money changers, and enterprises where wire transfers could be received. However, in response to pressures from migration (remittances) and population shifts, some regional diversification is occurring. Miahuatlán and Zimatlán then each had a branch of one of the national banks and ATMs as well as locations for receiving wire transfers. In the case of Zimatlán, this status increase is clearly due to the number of people who relocated there to be within commuting distance of Oaxaca City. Miahuatlán is alternatively becoming a minor banking center because of its access to the Sierra Sur. When we visited Miahuatlán, we were surprised to see the number of ATM and bank branches in what was, as late as the 1980s, considered to be a relatively isolated community.

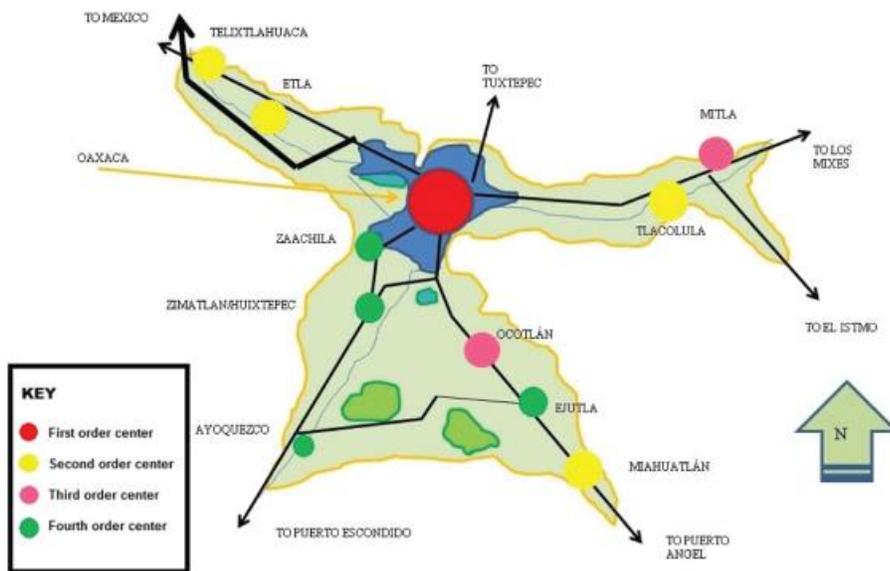
### **Administrative services**

A characteristic of centralized systems is that administrative and governmental services are concentrated in a single location. This was the case in Oaxaca's past, and despite efforts by the state and federal governments to decentralize many of its activities into the district capitals, it continues until today. Oaxaca de Juárez continues to be the seat of most state and federal services for the state; the city of Oaxaca scores twice as high as the next city on the scale of administrative services. Of interest are the communities at the next level, Miahuatlán and ETLA. Each represents the expansion of state and federal services in decentralized locations in an effort to provide services to those regions outside the valley of Oaxaca. In the case of Miahuatlán, it is the southern mountains. The distance to Oaxaca City from Miahuatlán makes it administratively efficient to have some services located in Miahuatlán rather than to require individuals from the mountains to travel all the way to Oaxaca City. These are, however, minimal, as all important administration must be completed at the state capital. The growth of Oaxaca City has resulted in an expansion of administrative services available in communities such as Zimatlán, Zaachila, ETLA, and Tlacolula, while the state and federal governments have searched for places to house their expanding infrastructures. The proximity of these communities to the state capital makes them ideal locations for such offices. In fact, the building that houses the state chamber of

deputies has moved to Zimatlán, a relocation that caused a major uproar when it occurred, because it shifted much of the administrative work of the legislature out of the center of Oaxaca City.

### The nature of regional subcenters

In each of the arms of the valley of Oaxaca there exists at least one subcenter with its own area of influence. These subcenters serve as conduits of goods, services, and surplus value from the periphery to the core. The regions around Zimatlán and Zaachila are exceptions to this trend, as their proximity to the core center of Oaxaca de Juárez means they lack many of the financial and administrative services found in other regional centers. Similarly, owing in large part to their geographic location, Miahuatlán and Telixtlahuaca can be considered as regional subcenters serving a wider region and providing their populations with a greater specialization and diversification of services (Figure 3).



**Figure 3.** Hierarchy and centrality, late 20th century. Compiled by the authors.

Telixtlahuaca, Miahuatlán, and Mitla are located at the limits of each of the three valleys (these are the limits of the arms). These communities serve as locations to which residents from regions outside of the valley come for goods and services. For example, Telixtlahuaca—located in the district for which ETLA is the administrative capital—has a higher level of commercial activity than does ETLA proper. Located 40 kilometers from Oaxaca de Juárez, Telixtlahuaca's growing influence now extends farther into the mountainous regions of the Cañada to the east and the Mixteca to the north. To a large extent, this rising prominence is due to its location at the point where the Oaxaca–Puebla toll road enters the valley. Ease of communication to Oaxaca, a 60-minute drive, and access to those mountainous regions has resulted in several financial and market institutions establishing branches in Telixtlahuaca. As a result, Telixtlahuaca has increased its importance in each of these areas as more and more migrants from the Mixteca and

Cañada regions move north to the border regions and into the United States, making Tlaxiahuaca the center to which their relatives must come to receive remittances. Etlá, in contrast, which used to hold the position that Tlaxiahuaca now shares, continues to lose influence, as its close proximity to Oaxaca de Juárez has meant that more and more of the administrative, commercial, and financial functions it formerly provided are being absorbed by the central place.

At the southern limit of the Ocotlán Valley, Miahuatlán is located 60 kilometers from the city of Ocotlán and 75 kilometers from Oaxaca de Juárez. Its location on the major road from Oaxaca City to the southern mountains (Sierra Sur) places it in a structural position not unlike that of Tlaxiahuaca. This has resulted in a concentration of economic, social, and administrative services to not only Miahuatlán's immediate catchment area but also the entire Sierra Sur (southern mountains). Perhaps most notable is the presence of financial institutions and a major Seguro Social (public health) clinic. Simultaneously, improvements in the road between Miahuatlán and Oaxaca City over the past two decades have cut the journey from more than 2 hours to just over 1 hour, meaning that many owners of commercial establishments in Miahuatlán no longer travel to Ocotlán for goods and services but continue directly to Oaxaca City. This is most dramatically demonstrated by the regular “combi” service of 12-passenger vans that connects Miahuatlán directly to Oaxaca.

Ayoquezco, on the western edge of the southern arm of the valley, lies on the road to the tourist community of Puerto Escondido. Growth in Ayoquezco is limited by its proximity to Oaxaca City and to Sola de Vega 30 kilometers to the south. Outside the valley, and thus outside our study area, this town has served and continues to serve as the secondary market for that region of the southern mountains.

Ocotlán, situated 15 kilometers from the central city of Oaxaca, is slowly transforming into a bedroom community for the larger center. Increasing commercial and administrative growth in the direction of Ocotlán is bringing more and more “central place” jobs within an easy commute of Ocotlán. The result is a growing number of administrative and commercial services needed by these commuters. Long-term permanent residents who might, in the past, have only traveled to Oaxaca City on market day or for specialized administrative and educational services, do not really partake of these new services. Similarly, the market in Ocotlán that normally occurred on Sunday has lost importance as local residents find more and more of their goods in Oaxaca City. Ejutla, which historically served as a subcenter located between Ocotlán and Miahuatlán, is suffering a different fate. Whereas the other two centers demonstrate a certain dynamism as infrastructure and the changing nature of the regional and global economy bring them closer to Oaxaca City, Ejutla demonstrates a degree of stagnation, as the people of the subregion that it traditionally serviced find it easier to travel either to Miahuatlán, Ocotlán, or directly to Oaxaca City for goods and specialized services.

As would be expected, the communities with the lowest scores are the more rural district capitals whose proximity to larger centers reduces the need for locally provided goods and services. The one exception is Ayoquezco, at the point where the districts of Zaachila and Zimatlán meet. Because of its distance (66 kilometers) from Oaxaca City, its commercial and administrative orientation is toward Zimatlán rather than toward Oaxaca City.

In many ways, the most interesting cases are Mitla and Tlacolula. Although both communities can be classified as subcenters, their growth owes to different forces. Mitla, a community located at the entrance to the Mixe region of the Sierra Norte, is growing as that portion of the state is integrated into the world economy. Mitla's growth is also enhanced by the expanding tourist market centered around the ruins located on the edge of the city and shops selling local and regional artisan goods that line the city's main thoroughfare. Tlacolula, in contrast, finds itself drawn deeper into the sphere of influence of the central place. Its growth in population is not so much a result of increased regional market activity—Tlacolula's traditional role every Sunday—as of more and more people finding it convenient to live in Tlacolula and then commute each day to the city of Oaxaca. Anyone sitting at the convergence of the Pan-American Highway and Boulevard Vasconcelos cannot miss the massive flow of traffic entering the city every morning between 7:00 and 9:00 a.m.

## **Conclusion**

With more than 30 years of research in Oaxaca City and the surrounding valleys, we are struck by two phenomena. First is how much the city has changed over that time, particularly since the entrance of Mexico into GATT and NAFTA—a watershed that marked the entrance of national and international chains (Aurrera, Chedraui, Wal-Mart, McDonald's, Toyota, Holiday Inn, and others) into a market that until then had been controlled by local merchants. At the same time, little has changed. The valley continues to be highly centralized through Oaxaca City as migrants and specialized agricultural produce flow through the regional network to Oaxaca City and into the world economy, while the money they remit to local communities flows through the banks in Oaxaca out to the communities, then back to the core, as people spend those funds on goods that are no longer supplied by local producers but by national and international firms.

This study began by using Christaller's ideas of central place, focusing on five ambients, or sectors of the economy, to describe the development of the urban system within the central valleys of the state of Oaxaca, Mexico. We realize there is debate as to the validity of Christaller's pure model in the context of a world where modern transportation systems and the Internet can significantly alter the costs of transportation between nodes in an urban system (Cartier, 2002; Mok, Wellman, & Carrasco, 2010; Turner, 2013). However, in the case of the central valleys of Oaxaca, Christaller's model has proven useful in helping to identify regional centers and subcenters in the valley and to explain or identify some of the factors leading to changes in status over time. Of particular importance in the central valleys of Oaxaca was the development of a road system that reduced the time of travel and cost of transportation between

secondary nodes in the valleys, as well as the Internet, which has allowed the banking sector to reach farther into the hinterland. All this, however, has only solidified the control of those financial, service, and commercial establishments whose seat is in Oaxaca City.

As Murphy and Stepick (1991:4) pointed out, a major factor in the relative changes that have occurred in the valley is the changing nature of the role that Oaxaca City and the state in general have played in the national and global economy:

Urban centers in Oaxaca have endured for over two millennia. Market stratification has consistently characterized these societies. Recurrently, the urban centers have been engaged and disengaged with a broader system. During periods of engagement, social inequality increases along with externally induced efforts (usually only partially successful) to reduce Oaxaca's political autonomy. With disengagement, social equality and political autonomy increase.

Beginning in the late 20th century and continuing through today, in a process similar to those described for the Philippines by Milgram, by Pozniak for Poland, and by Little for Guatemala (this volume), Mexico and, by extension, Oaxaca have been drawn more directly into the global economy with such a force and power that, unlike the past, local politicians and commercial interests have found it impossible to resist. As the traditional center of economic and political power, the city of Oaxaca has become an even more important conduit for the movement of the goods needed by core economies out of the state to the world system. At the same time, communities such as Miahuatlán and Mitla have grown in importance precisely because of their critical position in moving value out of hinterlands that previously were difficult to tap into the world system.

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