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An Historical Geography of the Earliest Colonial Routes Across the American Isthmus
Scott Brady*

We have heard of a good, though costly, passage; which would be not only advantageous, but a source of glory to its creator, should it be made. This passage would have to be constructed through the solid land ... there are mountains, but there are also hands. Give me the man who has the will to do it, and it can be done; if courage is lacking, there will be no lack of money, for the Indies ... will furnish it. For the spice trade, for the wealth of the Indies, and for a king of Castile, few things are impossible (López de Gómara 1925:222).

For all purposes of rapid communication, nevertheless, the monarchs of Spain depended upon those roads across the continent which their inability to convert into canals had compelled them to accept (Squier 1858:667).

Resumen
Durante el periodo colonial temprano, el istmo de América Central era una obstrucción costosa en la red comercial de gran envergadura para España. Este “fastidio americano” estrecho, montañoso interrumpía el tráfico marítimo. El deseo de encontrar un estrecho interoceánico en el istmo, estimuló la exploración española de su litoral durante las primeras décadas del decimosexto siglo. La ausencia de un estrecho forzó a los españoles a desarrollar las rutas trans-istmianas mediante el costooso transporte por tierra. Los españoles buscaron estrechos angostos que coincidieran con el punto más bajo de la espina dorsal montañosa. Tres localizaciones primarias atrajeron la atención como sitios para la construcción de caminos trans-istmianos relativamente cortos. Estos pasillos son: el Istmo de Tehuantepec, la travesía de San Juan del Sur-Lago Nicaragua, y el Istmo de Panamá. Para entender un poco más las rutas coloniales y transporte, este artículo compara y pone en contraste la génesis, el camino, la distancia, la vida y la estrategia de estas tres rutas trans-istmianas.

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Abstract

During the early colonial period the Central American isthmus was an expensive obstruction in Spain’s far-reaching trade network. This narrow, mountainous “American Nuisance” interrupted maritime traffic. Desire for an interoceanic strait through the isthmus spurred Spanish exploration of its littoral during the first few decades of the 16th century. The absence of a strait forced the Spanish to develop transisthmian routes across the isthmus for expensive overland transport. The Spanish sought narrow spans of the land bridge that coincided with low, level gaps in its mountainous spine. Three primary locations attracted attention as sites for construction of relatively short transisthmian roads. These transport corridors include the Isthmus of Tehuantepec, the San Juan del Sur-Lake Nicaragua crossing and the Isthmus of Panama. To further understand colonial routes and transport, this article compares and contrasts the genesis, path, distance, life span, and strategy of these three transisthmian routes.

Introduction

Common to every route are points of origin and destination, between which course the pulses of human endeavor. Flows along a route depend on the route’s site and situation. Site refers to a place’s physical characteristics: its absolute location, topography, hydrology, geology, climate and vegetation. Situation refers to a place’s relative location and the cultural factors that influence it. Route studies inquire after the character of the places connected and traversed by a route, and the factors that inspire, direct and support travel on the route. This article and a subsequent one consider the character of the Central American isthmus, the early colonial routes the Spanish built to span it, and the places that those routes connected.

Since 1502, when Columbus’ fourth voyage brought him to the north coast of Honduras, the American isthmus has presented a singular site and situation on which to construct routes. With the exception of the one-hundred mile stretch of desert that separates the Mediterranean Sea from the Gulf of Suez, no other corner of the globe offered humans the opportunity to connect two oceans with a short overland route.

Situation

Within two generations of Columbus’ voyages to the Americas all of the West Indies, North America to California and the Carolinas, all of South America except Brazil... and in the east the Philippine Islands and New Guinea passed under the sway of the Crown of Castile (Haring 1910:3). The empire’s far-reaching trade flows dominated the situation of the colonial routes that spanned the American isthmus. Each route was explored as a potential conduit for Spain’s interoceanic trade. During the 16th and 17th centuries the isthmus was the empire’s “American Nuisance” (McAlister 1954:259) because it sorely lacked a water passage interrupted maritime trade flows. Desire for an interoceanic strait through the isthmus spurred Spanish exploration of its littoral during the first few decades of the 16th century (Mack 1974). Columbus commenced the search on his fourth voyage in 1502. Eleven years hence Vasco Nuñez de Balboa crossed of the isthmus at Panama and found the “South Sea” (López de Gómara 1925). Discovery of the Pacific heightened Spanish hopes for discovery of an isthmian strait. It also demonstrated that, in places, the isthmus was only fifty miles wide, and that should no strait exist, a transisthmian road or canal were possible alternatives. Still, the search for a strait continued. In 1523, Charles V (366-367) ordered Cortés to redouble his efforts in search of “el secreto del estrecho.” Ten months later Pedro Arias de Ávila, henceforth referred as Pedrarías, governor of Castilla del Oro, signaled the enterprise’s futility in a letter to Charles that referred to the strait as “el estrecho dudoso” (Peralta 1883:33).

Before hopes of discovering the strait had ebbed, the Spanish bridged the isthmian barrier by opening overland transisthmian routes. Eventually ports such as Acapulco, Veracruz, and Porto Bello marked the coupling of these overland routes to the three “maritime lifelines” that connected Spain with her colonies (Galvin 1991:38; Map 1). The 18,000 mile Manila galleon route linked Acapulco to Manila, the eastern tip of the Orient’s cornucopia. Galleons from Seville and later Cádiz, sailed routes that linked Spain to three ports on the isthmus’ Atlantic shore.

For 250 years (1565-1815) the Manila-Acapulco route was “the most significant pathway for commerce and cultural interchange between Europe and Asia” (Lyon 1990:8). Spaniards named the Manila galleon nao de la China after the source region of its cargo. Goods from India, Ceylon, Japan and the Spice Islands also flowed to Manila for Spanish transport. Oriental goods included: silk, ivory, spices and porcelain. The galleons, ideally, departed Manila in July on a tedious journey eastward that required as much as a year to complete. Upon arrival in Acapulco, Oriental merchandise was exchanged for Mexican silver. Recusas transported the cargo to Mexico City and farther eastward to the port at Veracruz. The Manila galleon, laden with silver, departed from Acapulco in January. In contrast to the difficult passage east, the return to Manila commonly took three months, the nao de la China whisked west by the Northeast Trades and the Equatorial Current (Lyon 1990).

The galleons that linked Spain and Tierra Firme departed from Spain and docked at Cartagena and Porto Bello on the Isthmus of Panama. This pattern originated in 1537 and was institutionalized in 1544 by the casa de contratación (Mack 1974). The Spanish established the casa in 1503 to regulate and encourage trade between Spain and the New World (Haring 1964). The galleons usually departed from Spain between January and March. The Northeast Trades and the Equatorial Current guided...
the ships on a two month passage to Cartagena. Upon arrival at Cartagena, a 30-60 day stay commenced during which products and treasures of Tierra Firme and New Spain were brought to Cartagena. Messengers traveled south to notify the Viceroyalty at Lima that the Armada of the South Sea should prepare for its trip north to Panama. Prominent among the Armada’s cargo was silver from the mines at Potosí. The Armada was joined at Paita by the Navío del Oro carrying gold from Quito and its hinterlands. Upon arrival at Panama, these two fleets’ cargoes were transferred to recuas and carried across the isthmus to Porto Bello, whereupon they met the galleons and the great Porto Bello fair commenced. Commerce transacted at the Porto Bello fair overshadowed the other Atlantic coast ports because it attracted goods from throughout Spanish America. The fair lasted up to 40 days. From Porto Bello the galleons sailed back to Cartagena and then north to Havana, their final port of call, before returning to Spain. The galleons usually arrived back in Spain in late October or early November, the complete circuit, thus, requiring 8-10 months (Galvin 1991).

The route sailed by the Mexican flota completed Spain’s American maritime trade network. Its primary function was to transport New Spain’s silver and the Oriental goods that had been carried overland from Acapulco back to Spain. The fleet ordinarily departed from Spain in July and arrived at Veracruz during the first half of September. Its route coincided with that of the galleons until it entered the Caribbean near Guadeloupe or Dominica. At that point paths diverged as the Mexican fleet steered northwest for the Yucatán Channel. Along the way, merchants fanned out to call at secondary ports like San Juan, Santo Domingo, Santiago de Cuba, Trujillo and Puerto Caballeros. These traders rejoined the main fleet in Havana after it had called at Veracruz. Havana marked the point of departure for the return to Spain (Galvin 1991).

Spain’s “principle of colonial exclusivism” and its devotion to mercantilism loomed large among the influences on Spain’s maritime trade network (Haring 1910: 7). According to colonial exclusivism, Spain’s American colonies could trade only with Spain. Colonists were supposed to extract and produce raw materials to be shipped to Spain. Spain discouraged colonial manufacture and operated as the sole supplier of essential manufactured goods to the colonies. Commitment to mercantilism required that Spain transport and hoard the precious metals extracted from its colonies. Successful practice of these policies depended on pathways of regular exchange between Spain and her colonies. This exchange defined the situation of the land routes that crossed the isthmus.

Site

The physical geography of the isthmus also influenced Spain’s colonial trade network. Because of Spain’s reliance on maritime travel, prevailing winds, locations of
passages through the Antilles and the distribution of deep water ports water largely
determined the general routes of maritime transport. These maritime features, espe-
cially matters of port suitability, likewise, influenced the planning of overland routes
across the isthmus.

The Spaniards sought narrow spans of the land bridge that coincided with low,
level gaps in its mountainous spine. Three primary locations, among several others,
attracted attention as sites for construction of relatively short transisthmian roads.
They include: the Isthmus of Tehuantepec, the San Juan del Sur-Lake Nicaragua
crossing and the Isthmus of Panama (Map 2).

These transisthmian routes reflect the Spaniards’ desire for a water passage. Each
route allowed for inland penetration on rivers that drained interior highlands and
flowed to the Atlantic. Factors that explain this route strategy include: 1) The
Spaniards focused exploration on fluvial corridors in the hope that they might dis-
cover “el secreto del estrecho”; 2) The possibility that a stream’s headward erosion
had cut low passes in the cordillera also attracted route planners to rivers; and lastly,
3) Fluvial penetration minimized slow, difficult and expensive overland transporta-
tion.

To further understand colonial routes and transport, this article compares and
contrasts the genesis, path, distance, life span, and strategy of these three transisth-
mian routes. A subsequent article will trace the promotion of a transisthmian route
across during the colonial period, its faltering progress, and its reemergence in
Honduras’ current infrastructure.

The Isthmus of Tehuantepec

The northernmost transisthmian route crossed the isthmus at Tehuantepec
where Mexico’s horn tapers to a 125-mile wide waist that suggests a north–south
passage (Map 3). This region lies south and east of the convergence of the rugged
Sierras Madres Oriental, Occidental, del Sur, and the southern highlands. At
Tehuantepec the truncation in the isthmus’ breadth coincides with an attenuation in
its elevation. The lowest pass through the continental divide rests lower than 220
meters above sea level. The Río Coatzacoalcos meanders across this narrow, low-
neck of land in an almost south to north orientation as it flows from the divide north-
ward to the Gulf of Campeche.

Tehuantepec’s distinctive topography attracted attention as a location for con-
struction of a transisthmian route since the arrival of the Spanish in Tenochtitlán.
Before the dawn of the twentieth century a distinguished trinity of promoters had
already fixed their sights on how to exploit Tehuantepec. These notables include
Hernán Cortés, Baron Alexander von Humboldt, and Jarnes B. Eads. Cortés devoted
two decades to bridging the Isthmus of Tehuantepec with a road. In 1811, Humboldt
renewed interest in Tehuantepec as an isthmian crossing in his Political Essay on
the Kingdom of New Spain (1964). During the late 1870s and early ’80s Eads planned and promoted the construction of a ship-railway across Tehuantepec (Phelps 1881). Cortés searched for an isthmic crossing before conquering Tenochtitlán. A map given to him by Moctezuma focused Cortés’ explorations on the Río Coatzacoalcos. In 1520 he sent a party from Veracruz to explore the river. They found that although the Coatzacoalcos was not the strait, the river’s harbor and channel were deep enough to allow boats passage at least 30 leagues upstream. Cortés responded by establishing settlements on opposite sides of the isthmus to serve as termini for an inter-oceanic supply route: Espíritu Santo, four leagues upstream from the mouth of the Coatzacoalcos, and the Zapotec village of Tehuantepec on the Pacific coast (Moorhead 1947). Cortés wanted a road across Tehuantepec to service a shipyard he planned to build on the Pacific coast. He envisioned the road’s Pacific terminus as the point of departure for ships searching for a route to the Spice Islands, and for the eventual development of trade with Peru (Borah 1954). The Spanish recently had built a shipyard at Zacatula, near the mouth of the Río de las Balsas. Two hundred difficult overland leagues separated this site from Veracruz. The Spanish sought a shorter route to transport heavy essentials like anchors, cables, spikes and artillery (Moorhead 1947). By 1526 they had focused Pacific coast ship-building on Tehuantepec to take advantage of the shorter passage; and, Cortés had requested that the province of Tehuantepec be included in his marquisate (Borah 1954).

Around that time the first shipment was carried across the Isthmus of Tehuantepec. Eventually, cargo was sent from Spain by way of Veracruz which included shipbuilding supplies like “artillery, anchors, timber, spikes, rigging, ammunition, apothecary supplies, merchandise, and stores of sea-biscuit, wine, vinegar, olive oil, cheese, meat and fish” (Moorhead 1947:373). According to Cortés, the cargo was “brought from ... Veracruz by sea to Coatzacoalcos and from Coatzacoalcos by river in canoes to within twenty leagues of here [Pacific Coast]” (1947:373). Cortés reported to Charles V that because of the rugged nature of the final twenty leagues, *tamemes* [human bearers] had to carry the cargo rather than wagons or pack trains. Moorhead suggested that Cortés exaggerated the route’s difficulties to defend himself from retribution for having violated Charles’ proclamation of 1528 limiting the use of Indians as bearers (1947). However, an 1850 survey of the isthmus reported that there were still no cart roads over the continental divide, only a mule path (Williams 1852). Cortés’ lapse in labor relations later proved to be the undoing of his Tehuantepec plans.

Moorhead’s description of interoceanic shipments during Cortés’ time demonstrates fundamental characteristics of route sites and the nature of early colonial transport in the New World. The Spanish preferred to keep cargo on the water as much as possible. Accordingly, they transshipped shipbuilding equipment from Veracruz to the mouth of the Coatzacoalcos, a trip of about 60 leagues requiring only two days in good weather. At either Espíritu Santo or the settlement Coatzacoalcos cargo was transferred to canoes for the trip upstream.
The Coatzacoalcos in its lower stretches is a broad river of negligible current that meanders across the low, flat Atlantic coastal plain. Canoe travel followed this artery inland more than a third of the way across the isthmus in a relatively easy passage. However, the confluence of the Río Junuapañ marks the topographical transition from the coastal plain to the uplands of the continental divide. The fragmented fall-line on the Coatzacoalcos and its tributaries, the Sarabia and the Malatengo reflects the change in topography. Despite the cataracts, Moorhead estimated that during the rainy season, June to December, canoes could navigate about 40 leagues inland to the fall line (1947). This 12-day trip brought them more than two-thirds of the way across the isthmus.

The location of the break-in-bulk point is unclear. Moorhead suggested that because it was approximately 20 leagues from the Pacific, Antigua Malpas on the Coatzacoalcos, the oldest known landing, might have been the site of disembarkment used by Cortés (1947). Williams' map of the isthmus shows two other landing sites in the vicinity of Antigua Malpas that also could have served Cortés. A recent 1:250,000 scale topographical map contains a settlement located on the Río Sarabia at approximately the same latitude as Antigua Malpas. The settlement is called "Paso Real," suggesting that it could have been the break-in-bulk point (Mexico, Carta Topografía: Juchitán, 1985).

Soon after leaving water, routes of overland travel diverged. Williams' map shows mule paths leading from the landings to several passes through the continental divide, the Chivela, Mazahuas and the Tarifa. Moorhead suggested the Chivela pass was the most convenient; even more so after Cortés assumed control of Indian villages located on either side of that pass (1947).

Once across the divide, travel became easier on the gently sloping Pacific coastal plain. The exact route is uncertain because the location of Cortés' shipbuilding center is uncertain. There were three possible sites. Their shared defining characteristic was their proximity to a river mouth which provided easy in launching ships (Moorhead 1947).

Establishment of the Tehuantepec route was interrupted when Cortés returned to Spain to answer charges of violating Indian labor laws. While away, the Audiencia of Mexico shut down shipbuilding at Tehuantepec and allowed finished ships to rot. Undaunted, Cortés returned to Tehuantepec in 1532 and resumed construction. By 1533 four vessels were completed. Legal troubles again haunted Cortés. In 1540 in retaliation for his unauthorized explorations north along the Pacific coast, Cortés' vessels and naval stores were confiscated and the Tehuantepec port closed (Moorhead 1947). After two decades, Cortés' efforts to establish regular interoceanic transport across the isthmus of Tehuantepec failed.

Cortés' Tehuantepec route, however, endured. In the 1550s, travelers wishing to journey from Mexico City to the Pacific port of Huatulco, 80 miles north of Tehuantepec, faced a difficult three to four week overland trip. An alternate route led travelers from Mexico City to Veracruz from which a vessel carried them to Coatzacoalcos. From this point they boarded canoes, manned by Indian rowers from Cortés' marquises, who transported them to the continental divide. Whereupon they resumed land travel and concluded their journey to Huatulco (Borah 1954). Between 1561 and 1610 emergency shipments of artillery or ship supplies for the Manila galleon fleet also were carried across the isthmus rather than over the onerous road from Veracruz to Acapulco (Moorhead 1947).

During the past three centuries Tehuantepec's peculiar site and situation has been the focus of proposals for canal, highway and railroad projects. Further evidence of Cortés' grasp of this geography is confirmed in the transisthmian railroad that presently runs through the pass at Chivela (Winberry 1980), and by Mexico's transisthmian Highway 185 that carries motorists through the pass at Mazahua.

The Nicaragua Rift

In 1522, the same year that Cortés established ports to link his interoceanic route at the Isthmus of Tehuantepec, Gil González Dávila led his horse into the waters of a large lake that local natives called Cocibolca, and which presently is called Lake Nicaragua (Radell 1970). In light of the lake's breadth and its water's freshness González Dávila called it "El Mar Dulce" (Harrison 1971:15). Lack of salinity and a brief survey of the lake convinced the Spaniards the lake had a drainage outlet, a desaguadero, to either the North or South Sea. Ensuing conflicts with the natives prevented them from discovering the Desaguadero.

This discovery, however incomplete, soon captured the attention of Spaniards throughout the isthmus. The following year Pedrarias dispatched Francisco Hernández de Córdoba, from Panama to conquer the region surrounding the lake. Hernández' party established a settlement, Granada, on the north shore of Lake Nicaragua. Cortés, apparently consumed by the search for any isthmian crossing, also sent a party to the Gulf of Honduras in 1524 after learning that González Dávila believed the Desaguadero emptied into the Caribbean at that point (McAlister 1954). González Dávila also converged on the region to reassert his own claim to the territory by right of discovery. Disputes over control of the region is beyond current concerns. However, the reasons Lake Nicaragua and its, as yet undiscovered, outlet inspired such controversy is significant.

Lake Nicaragua and its undiscovered outlet constituted a waterway from the Caribbean to within two to three leagues of the Pacific, the waters only separated by the narrow Isthmus of Rivas (Map 4). No other isthmian passage so nearly approached a transisthmian strait. González Dávila, Pedrarias, and Cortés must have realized that, lacking an actual strait, this route would become the chosen avenue for interoceanic transport. And the benefits of this trade would accrue to those in control of the region. As stated by Bolaños, the discovery of a navigable outlet leading from Lake
Nicaragua to the Caribbean would "dio a la ciudad de Granada las posibilidades que tuvo en el siglo siguiente para enriquecerse y llegar a ser una de las más opulentas ciudades de la América Central" (Williams 1971:38).

Lake Nicaragua's outlet, previously called Desaguadero and presently called Río San Juan, became known to the Spaniards by 1525 (Williams 1971). A number of factors, not the least among them a series of eight cataracts on the river, prevented the Spanish from descending to the mouth of the Desaguadero until 1539. However, as early as 1536, Rodrigo de Contreras, the province's governor, had suggested the possibility that the Lakes Nicaragua and Managua and the Desaguadero could serve as a transisthman passage. In 1540, he established the port San Juan de la Cruz at the river's mouth (Incer 1990).

Even before the Spanish descended the Desaguadero Granada emerged as a base of operations for conquests throughout Central America and later became a crossroads for trade. The slave trade was the region's first profitable venture. The first shipment of Nicaraguan slaves arrived at Panama in 1526. Pedrarias arrived in Nicaragua in 1528 and expanded slavery. By 1533, the slave trade was primarily conducted out of the port at Realejo, located on the Pacific coast north of Lake Nicaragua. Because of the trade in human chattel, and the abundance of its hinterland's natural resources, Realejo became Spain's major Pacific coast shipbuilding center during the 16th century, supplying vessels for the Manila galleons and the trade between Mexico and Peru (Radell and Parsons 1971). Prior to development of the Desaguadero, the Spanish shipped Indian slaves from Realejo to Panama and across the isthmus and on to Caribbean ports or, following Pizarro's conquest, to Peru to work in the mines. Following 1540, slaves bound for these locations were also sent down the Desaguadero (Williams 1971).

Nicaragua also was an early source region of agricultural products. Colonial staples like corn and poultry flowed down the Desaguadero and south to Nombre de Dios and Cartagena in return for manufactured goods from Spain and later African slaves (Radell 1970). During the 1540s Nicaragua's market expanded to supply the viceroyalty of Peru with products like cacao, pork, cotton, indigo, tobacco, dye-woods, flax and sugar cane which were sent down the Desaguadero to Nombre de Dios, then carried across Panama and shipped south (Williams 1971; Radell and Parsons 1971).

The reason the Spanish chose to follow this course rather than establishing an actual transisthman route by constructing a wagon road across the Isthmus of Rivas, possibly linking Granada to Realejo, remains uncertain. One possible explanation is the hazardous conditions that awaited ships in the Gulf of Papagayos. This stretch of coast is characterized by strong offshore winds, papagayos, and turbulent ocean currents (Radell and Parsons 1971). These difficulties notwithstanding, already in the 1530s merchant ships regularly sailed from Realejo to Panama and Peru (Borah 1954). When freebooters imperiled trade in the Caribbean beginning in the 1570s,
Central American commerce was directed to well-protected Pacific ports like Iztapa, Amapala and the Gulf of Nicoya. Pirates shut down the Desaguadero in 1573 when they interrupted a quartet of frigates en route to Nombre de Dios (Radell 1970). Yet, when Drake began terrorizing Central America’s Pacific coast in 1579, Granada recouped its losses and assumed an even greater commercial importance. Because its interior position presumably sheltered it against attack, Granada became an entrepôt for products from all over Central America. Mule trains led to Granada rather than to the coasts. The resultant economic boom peaked in the 1590s, when the town numbered 200 Spanish vecinos (Radell 1970).

Despite the profitability of the trade on the Desaguadero and the concomitant pirate threat the Crown sponsored no fortifications or major settlements along the route, other than those at either end of the waterway, until 1602. At that time a fort named San Juan de Santa Cruz was erected two-thirds of the way up the river at the series of rapids called El Diablo or El Castillo (Williams 1976). John Davis, a Dutch pirate, exposed the futility of this effort in 1665 when he led 120 men up the Desaguadero and across the lake to sack Granada (Radell 1970). Pirates sacked the city again in 1670 by the same route. Granada vecinos responded by evacuating the settlement. In 1679, the settlement numbered only 12 vecinos in 1679. In 1683 it was sacked yet again, this time from the Pacific coast. By century’s end the Desaguadero “lay almost empty of traffic” (Williams 1971:66).

Granada and the Desaguadero recovered during the first half of the next century. Nevertheless, the Desaguadero remained a two-edged sword for colonial Nicaragua. It provided a maritime outlet for trade, and persisted as an artery for penetration by unfriendly forces. During the eighteenth century, the Miskito Indians in collaboration with the British took advantage of this gateway for raiding penetrations (Williams 1971).

The California Gold Rush finally stimulated exploitation of the Río San Juan-Lake Nicaragua route’s interoceango possibilities. To extend his passenger service to the Pacific coast and take advantage of the feverish migration of prospectors intent to “strike it rich”, Cornelius Vanderbilt contracted to open a ship canal across Nicaragua in 1849. By 1851 the first steamer ascended the Río San Juan to the El Castillo rapids, whereupon travelers were transferred to a bongo. This huge shallow draft dugout canoe negotiated a series of cataracts, after which passengers boarded a second steamer for the rest of the trip upriver and across the southern margin of Lake Nicaragua to Virgen on its western shore. At this point passengers rode on horseback 12 miles across the Isthmus of Rivas to San Juan del Sur on the Pacific coast (Williams 1971). The trip totalled approximately 190 miles: 120 miles on the Desaguadero and 70 miles farther to the coast. A bongo could travel from San Juan to Granada and back in twenty to thirty days (Williams 1976). In the late 1850s steamers could make the round-trip river run in 3 days. Crossing Lake Nicaragua from San Carlos to Virgen took twelve to fourteen hours. Actual travel time from the Atlantic to Pacific was 24 hours and 30 minutes.

Recurrent interest in the Nicaragua’s transisthmian passage is found in a 1964 speech by President Lyndon Baines Johnson suggesting that, because of the impending expiration of the Panama Canal Treaty and the inadequacies of that canal, the United States should consider constructing another interoceango canal (Klette 1967). Among four possible sites he mentioned was a line that ran along the Río San Juan across Lake Nicaragua and on to Salinas Bay. And as this sentence is being written, Nicaraguan politicians and ecologists are in serious discussion over the possibilities and consequences of a “canal seco” across this route.

The Isthmus of Panama

In 1517, four years after Balboa crossed the Isthmus of Panama and discovered the South Sea, Pedrarias, founded a port settlement called Panama on the Pacific coast. Pedrarias’ biographer, Pablo Rubiano, claimed the settlement was an integral part of the old conquistador’s plan for Panama:

Debían atravesar, conforme a las instrucciones de Pedrarias, el istmo por su parte norte, buscando la parte más estrecha, a fin de determinar un camino coto y seguro de un oceano a otro, y de establecer tres poblados, uno en cada una de las costas, y otro en un punto intermedio, para asegurar el tránsito (1944:144).

Two years later, the Spanish founded Nombre de Dios on the Atlantic coast. An almost due north-south transect across approximately 40 miles of “horrible mountaines, and many great rivers” separated these two settlements (Map 5) (Martyr 1812.254). It was over these “18 leagues of misery and curses” that the Spanish established their first transisthmian camino real on the American mainland (Church 1902:325).

The first cargo transported on the camino real included gold and Indian slaves, taken by Spanish exploring expeditions along the Pacific coast. In the 1520s, during which time Spain claimed the Moluccas, the possibility of directing the spice trade across Panama focused attention on the crossing. However, this plan faded and in 1529 Charles V sold Portugal his claim to the Moluccas. Despite this early misstep, the Isthmus of Panama did become “the most vital link in the transportation system between Spain and Peru” (Haring 1964:181) after Pizarro’s conquest of Peru in the 1530s and the subsequent discovery of Potosí’s silver deposits.

Pedrarias sought the Crown’s aid for construction of this link and optimistically predicted the completion of a two-carte-wide, partially paved road as early as 1521 (Rubiano 1944). In 1521 he was granted 60,000 maravedises for “gastos e obras” (Carlos 1521c:540). In comparison, the Crown paid Pedrarias 150,000 maravedises.
per year as governor of Castilla de Oro (Carlos 1521d). In 1521, Pedrarias also received permission to utilize the caciques and Indians along the route as workers and settlers (Carlos 1521a and 1521b). Settlers were needed for the regularly spaced route settlements, *ventas*, to provide travelers shelter and provisions. By 1535, the Spanish had established three *ventas*: Venta de Chagres, located at that river’s crossing; La Junta; and Capira (Haring 1964). Pedrarias milked the treasury twice more in the succeeding 3 years for a total of 5,000 pesos of gold for construction of the road (Carlos 1524a and 1524c). The Crown later approved *repartimiento* of the route’s center “para seguridad del dicho camino y para la contratación que se espera que ha de avenir y la dicha población a de ser muy necesaria entiédese que en el comedio dellos” (Rubiano 1944:298-299).

Despite these grants, a royal document from 1527 reported that instead of carts, transisthian travelers depended on beasts of burden, animal or human (Carlos 1527). Construction of a cart road over this wearisome route proved unrealistic for the inhabitants of the two small communities, Panama and Nombre de Dios, that the road was to link. Obstacles to construction included the mountainous terrain, dense tropical forests, water-logged swamps, and a debilitating hot and humid climate. These conditions prevailed until the eighteenth century when the first “permanent, stone-paved road was constructed across the isthmus” (Haring 1964:181-183).

The camino real, actually more of a mule path than a road, led over approximately 50 miles of uneven terrain. For about half of its extent, the route followed a series of stream valleys cut into the narrow cordillera. Departing from Panama on the Pacific coast, a typical transit struck out almost due north, crossing relatively level ground until fording the Río Chagres just upriver from its confluence with the Río Pequení. From this point, the route climbed north along the Pequení. Beyond the Pequení the camino real led over an interfluve and into the valley of the Río Boquerón. The trip to this river’s headwaters brought travelers out of the highlands and within 10 miles of Nombre de Dios, the remaining stretch leading over isthmus’s narrow rim of coastal lowlands. The trip usually required four days (Mack 1974).

In 1527 the Spanish discovered an alternative to the overland camino real. The Río Chagres follows a meandering course that approximately the shape of a boomerang with both ends, its headwaters and its mouth on the Atlantic coast, facing north, its bend located on the Pacific half of the isthmus facing south. The Spanish explored this river between 1527 and 1533 and found it suitable for transport during the rainy season, May to December. The new outlet was a convenient complement to the original camino real. For the land route became a transitisthian quagmire during the rainy season. Accordingly, in 1536 a warehouse was constructed at the head of navigation, Venta de Cruces, just upstream from the river’s great bend (Mack 1974).
A pattern of seasonal transport flows emerged. During the wet season recuas laden with cargo traveled from Panama to Venta de Cruces, the break in bulk point, a distance of five leagues. From there goods, especially those with a relatively low unit value, were transferred to boats for transport downriver. The distance from Venta de Cruces to the Chagres' mouth was 18 leagues. The journey lasted between three and twelve days. Another eight to ten hours were required to complete the trip to Nombre de Dios (Haring 1964).

During the dry season recuas traveled from Panama along the camino real, a difficult, dangerous and expensive trip that covered 18 leagues and, as mentioned earlier, usually took four days. Heat, moisture, and mountains combined with unreasonably heavy loads caused high rates of mule mortality. This, in turn, increased transport costs. The overland route also was plagued by cinamrones who regularly preyed on the slow-moving pack trains. Such was the menace of these desperados to transisthmian trade that in 1554 the Spanish authorities at Nombre de Dios launched a prolonged campaign against them. Nevertheless, by 1570 the cinamrones were said to have numbered 3,000 (Mack 1974). The drag these difficulties exerted on the profitability of transisthmian trade was noted by colonists throughout the isthmus, especially those who claimed dominion over and promoted potential alternatives. Transisthmian transit across the Isthmus of Panama was plagued further by the dreadful ports, Nombre de Dios and Porto Bello, linked by the camino real. In 1596 the Spanish improved this situation by abandoning Nombre de Dios, and establishing a new port, Porto Bello, five leagues to the west (Mack 1974). Several factors triggered the move, including: 1) Nombre de Dios was a wretched site for a port, surrounded by miasmatic, wet lowlands unsuitable for cultivation and worse for human health, and with a wide north-facing harbor exposed to north winds and too broad to defend; 2) Nombre de Dios was regularly threatened by intruders like Sir Francis Drake who raided the settlement in 1572 and sacked and burned it in 1596; and lastly, 3) Porto Bello was located nearer than Nombre de Dios to the mouth of the Chagres; and, possessed a deeper and better protected harbor. Haring (1964:185) called it "perhaps the best natural harbor on the Atlantic side of the isthmus."

The Welsh buccaneer Henry Morgan's raid on the camino real's Pacific terminus, Panama, in 1671 forced the Spaniards to make a practical decision: move the port. The original site of Panama abutted a harbor that experiences a tidal range of eighteen to twenty feet. The gradual slope of the harbor bottom forced larger ships to anchor two leagues offshore and transship their cargoes to port on smaller draft vessels (Mack 1974 and Haring 1964). Accompanying this premature break-in-bulk point were wearisome living conditions ashore that rivaled those of Nombre de Dios (Mack 1974). Fray Tomás de Berlanga likened Panama to a "cueva de ladrones e sepultura de peligrosos" (1535:532). The Spanish founded the new settlement of Panama in 1674 two leagues west of the old settlement (Mack 1974).

Despite port improvements on both coasts and utilization of the Chagres for seasonal transport, relentless attacks by buccaneers and English fleets forced the Spanish to abandon their convoy system and Panama's camino real in 1748 and direct their ships around Cape Horn (Mack 1974). As a result, trade across the isthmus descended into a century of dormancy, only to revive with the onset of the California Gold Rush.

Before the gold rush, a flood of foreign interests converged on Panama with proposals to develop a transisthmian passage. Their arrival coincided with the province's declaration of independence from Spain in 1821 and voluntary inclusion in Simón Bolívar's republic of Gran Colombia. The first passage, the Panama Railroad, was completed in 1855, long after Bolivar had died and his republic had trucifurcated. The railroad surveys wisely avoided the route of the camino real and instead followed the previous rainy season route that led from Panama to Venta de Cruces and then along the Río Chagres to Limón Bay. Fifty-nine years after this development, and more than 360 years after Gómez first proposed a transisthmian canal, the Panama Canal was completed along the path of the railroad. To ensure that the canal and its locks had an adequate year-round water supply, the upper reaches of the Río Chagres were dammed in 1935. The large reservoir that resulted, Madden Lake, appears to have submerged Venta de Cruces and hence, drowned a stretch of the old camino real.

Points Parallel and Peculiar

Inquiry into the site and situation of the three primary colonial transisthmian routes has demonstrated several similarities and several fundamental differences. Chief among the similarities was the coincidence of route locations with fluvial valleys entrenched in relatively narrow and low spans of the American isthmus. This reflects the Spaniards' desire to minimize the terrestrial interruption in their maritime trade network. It also underscores the difficulties of overland travel, by foot, mule or cart, during the early colonial period.

Despite the brevity provided by these short, low spans, relief still plagued isthmian traffic. The contest against slope was probably greatest in Panama. Cortés' justification of his use of indigenous bearers rather than mules or carts suggests that the Tehuantepac crossing was also steep. Even water transport faced steep ascents and descents as with the Río San Juan's series of treacherous cataracts.

All three routes incorporated water courses and thereby offered significant maritime penetration. Fluvial routes also reflect prior purposes. Discovery of at least two of these waterways, the Coatzacoalcos and the San Juan, resulted from searches for the transisthmian strait.

Absence of a complete water passage obligated the Spanish to travel over land and by water. Because each travel mode employed a particular manner of packing,
and hauling cargo, each isthmian passage contained a break-in-bulk settlement. In Panama, Venta de Cruces served this purpose. In Nicaragua, Granada was a break-in-bulk point, as well as an inland port. Antigua Malpaso or Paso Real possibly served this purpose at Tehuantepec. Additional settlements emerged or were incorporated along the routes to function as points of defense or posts of shelter and sustenance. Examples include: the tardily constructed, and ill-managed fortifications on the Río San Juan, the ventas on the camino real across Panama, and Cortés’s Indian villages.

The transisthmian routes linked dreadful port sites. The isthmus offered the Spanish an extremely limited range of sites from which to choose. Potential port sites were relegated by nature to the isthmus’ fringe of tropical lowlands and, moreover, only along those few truncations in the isthmus that were suitable for expeditious overland transport. Consequently, transisthmian routes, sufficiently difficult throughout their spans, were plagued by pestiferous settlements like Porto Bello, Panama, Nombre de Dios and San Juan de la Cruz at their margins.

Despite the flaws of Panama’s ports, these coastal settlements, primarily Panama, contained the majority of the route corridor’s population. In contrast, Granada, an interior settlement, dominated Nicaragua’s route corridor. The differences in the distribution of population reflect differences in the nature and function of the respective routes. Because the Panama route was relatively short, a major midway settlement was unnecessary. The land between Porto Bello and Panama was ill-endowed to support such a settlement. The Panama route corridor ultimately was merely an interruption in Spain’s maritime trade network: something to get past, not to develop. Only the extraordinary wealth the Spanish transported across the isthmus persuaded them to tolerate this execrable passage for so long.

Nicaragua’s route corridor differed significantly from Panama’s. The approximately two hundred mile Nicaraguan transit was five times longer than Panama’s. The Nicaraguan passage was rarely, if ever, used as a true transisthmian passage during the early colonial period. Instead, it served as the beginning of a trade funnel’s narrow end. Traders from throughout the isthmus converged on Granada, whereupon they transferred their cargo to boats for the trip down the Desaguadero. Granada functioned as an inland port and break-in-bulk settlement.

In stark contrast to the difficult coastal locations of Panama’s primary settlements, Granada was situated in the Nicaraguan Depression, a fruitful interior region overlain by fertile volcanic soils. This region’s agriculture supported a large population before and after the conquest. Panama’s port settlements lacked the benefits of such a hinterland. Nicaragua functioned as Panama’s hinterland, supplying slaves and foodstuffs. Nicaragua also supported a prosperous colonial population. Nicaragua’s transisthmian corridor does not completely explain the rise of Granada and the surrounding areas, but interoceanic traffic undoubtedly contributed to the development of the province. Granada is a model of route-related colonial development vastly different than that of Panama’s. The discovery and exploitation of the Nicaraguan corridor caused, or coincided with, colonial development of the interior.

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**Explanation of Document Collection Abbreviations**

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