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RECONSTRUCTING THE FLOATING CITY

The most august city of Venice is today the one home of liberty, peace, and justice, the one refuge of honorable men, haven for those who, battered on all sides by the storms of tyranny and war, seek to live in tranquility.

Petrarch, 1364[1]

1. Foundation Myths

Myths have always been a creative means of fostering civic pride and projecting civic identity. The story of Venice's birth inspired mythmaking from its very beginnings. Some two hundred years after the Roman Empire had separated into eastern (Byzantine) and western (European) spheres, Cassiodorus (537–38), a Roman offi cial stationed in the Byzantine capital of Ravenna, constructed an ideal template of the boat peoples on the Venetian lagoon. His description of a humble fishing population far removed from the official centers of political power inspired learned writers nearly a thousand years later to create a lasting image of a free people bathing in peace and prosperity. In the fifteenth and sixteenth centuries, an age when intellectuals emulated Greek and Roman ideals, humanist writers generously elaborated on Venetian origins. Among the most popular stories was the one linking Venetians with the free-spirited, noble warriors of Troy, who reputedly fathered the inhabitants of *Venetia*, the present-day Veneto, Friuli, and Trentino regions. Some mythmakers endowed the mainland peoples that colonized the lagoon with Gallic bloodlines, while still others situated both Trojans and Gauls in Venetia in order to infuse Venetians with the noble ancestry of classical antiquity, the most coveted of genealogies in Renaissance elite circles.

Indeed, the Romans had founded colonies throughout mainland Venetia, the Adriatic littoral, and the lagoon by the first century of the Common Era.

But the city of Venice itself could not truthfully lay claim to Roman origins, as humanist writers and architects continued to insist throughout the Renaissance, when other major Italian cities were vaunting their genuine links with classical antiquity. Jacopo Sansovino's Loggetta (1537–66) at the foot of the bell tower is a tribute to the city's penchant for mythmaking: the iconography placed Venetians on the same level with the deities of antiquity. A century before the classical structure went up, writers were fabricating Roman associations. Venice, asserted Bernardo Giustiniani (1408–89) was the heir to a justly punished Rome; its earliest settlers, unlike the Romans, had successfully escaped the ravages of Attila the Hun. Another famous humanist, Francesco Sansovino (1521–86), borrowed a fourteenth-century myth from the neighboring city of Padua: that Venice's birthday was on the feast day of the Annunciation in 421 CE. The exact date, March 25, was the same day Rome was founded, the Christian era began, and nature habitually awakens from winter slumber. Thus folklore and civic pride blended over the centuries to produce the mythical foundations of a Roman and Christian past, values that sustained the power and imagination of Venetian rulers, writers, and visual artists.

The classical mythmaking of the fifteenth and sixteenth centuries corresponded with Venetian involvement in the period's Peninsular conflicts, a period of economic competition and political strife that necessitated building a larger territorial power base. As Venetians joined in rivalry with other nascent Italian regional states, they became aware of their unique origins, as the only Italian city without a classical past. Imbued with a sense of their specialness, they invented one. It was only one of many myths the peoples on the lagoon would go on to fabricate, in tandem with their construction of a floating city.

2. Real Beginnings: The Flight to the Lagoon

Venetian origins really belong to the sixth-century fishing peoples who put together fragile huts raised on stilts above mud flats, amid the silt from the rivers, reeds, swamps, and salt marshes of the lagoon. Venetia's refugees, preferring the boggy terrain of the lagoon and the littoral to the aggressive Lombard tribes that were colonizing northern Italy, scattered along the mud flats and salt marshes of Caorle, Jesolo, Torcello, Chioggia, Malamocco, and Rivo Alto. They dispersed as far north as Aquileia and Grado and as far south as Chioggia, stoically conquering the harsh amphibious environment that stood between the open Adriatic Sea and some thirty-one miles

of coastline. It was filled with clay and sand bands carried down by the river currents of the Po Delta and shaped by marine tides. The migrants settled on raised, wet, salt flats amid carpets of algae, rush beds, river estuaries, and wild fowl and a variety of other fauna. Nothing was fixed in time or place. When their marginal plots of land receded, in rhythm with the tides and floods of the lagoon's brackish waters, they toiled to consolidate the ground with mats made of reeds and dry soil. There was no firm shoreline separating land and sea, only the slippery mud and fluid margins that made settlement so precarious. The groups around mainland Treviso, Indo-Europeans who harkened back to pre-Roman times, founded Venice's earliest settlements, Rivo Alto (which signified "high bank" and was the future Rialto) and Malamocco, on the central sand bar generically named Lido (see Plate XIV). They were joined by the elite lines from the imperial administration and military hierarchy that had peopled Oderzo, Altino, Padova, and Aquileia, as well as clerics, carpenters, ironworkers, and glassmakers. All of these peoples carried with them centuries of tradition linked to the Etruscans, the Greeks, and Mediterranean culture in general, including burial rites, metalwork and jewelry, and textile handicrafts. Transalpine Gauls and Celts had also crossed their paths via the old Roman roads and canals, leaving traces of their cultures. In the sixth century, boatmen and barge men took advantage of the Roman waterworks that had rendered the lagoon more navigable, including land reclamation and deforestation. They navigated around the littoral islands and up and down the rivers that connected the lagoon to the mainland, earning their living from transport, and from fish and salt, which they traded for timber to construct boats and later merchant galleys.

Although Venetian chroniclers proudly claimed the city was independent at birth, the island archipelago, situated in a strip of central and northeast Italy called the Exarchate of Ravenna, was linked politically as well as culturally to Byzantium, then a flourishing commercial power on the Black Sea. The most enduring material evidence of this lies with the seventh-century Veneto-Byzantine churches of Torcello and Murano (Plate II), which had counterparts in Ravenna and Grado as well as original templates in Rome and Constantinople. They had a simple basilical plan based on Roman models that was typical of early Christian churches. As followers of Latin Christianity, the inhabitants of these two islands, called *venetica* to distinguish them from the Lombard inhabitants of mainland Venetia, revived Roman and early Christian traditions, but they also adapted the Byzantine idiom of patterned brick exteriors and still-life

interiors of two-dimensional gold mosaics, an ancient technique from the Greco-Latin era. Both the cathedral of Santa Maria Assunta on Torcello and Santi Maria e Donato of Murano were centers of Marian devotion. Their parishioners thrived on agriculture as well as glass manufacture deriving from the techniques of late antiquity.

Yet Byzantine cultural representation and religious symbolism did not mask the virtual reality that the eastern emperors lacked the resources to rule their western margins, a limitation that afforded Venetians the liberty to develop separately. Initially the exarch appointed a master of soldiers to rule over the littoral, but by 730 the inhabitants elected a doge (dialect for duke) as their leader and became, with the Adriatic city of Ravenna, one of two Italian settlements retaining political affiliation with Roman Byzantium. The link was important, for it offered lucrative trading privileges and tax exemptions with the eastern sphere of the Roman Empire, as well as some measure of protection, for several centuries.

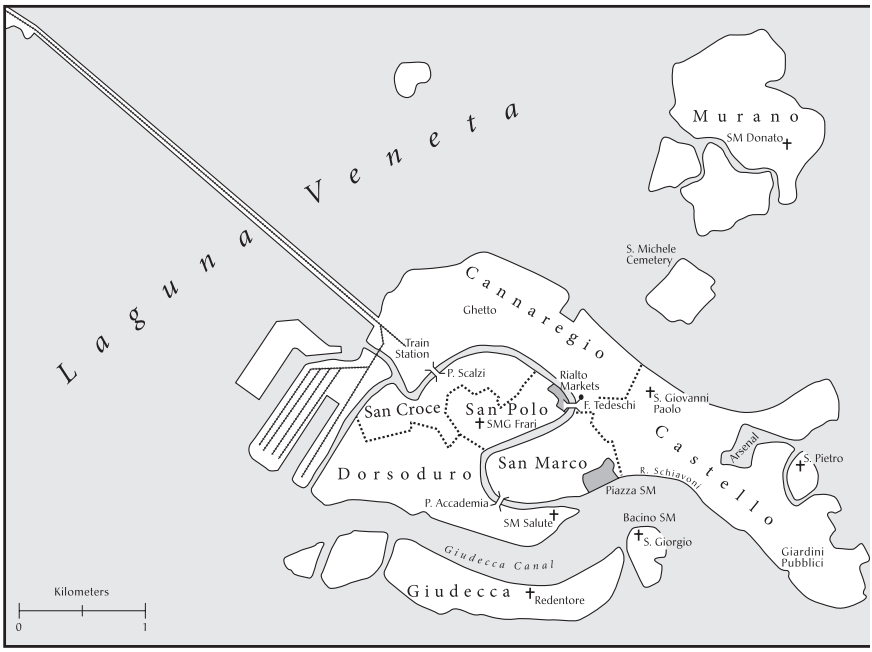
Venetian independence developed in tandem with the gradual disintegration of Byzantium but also as a result of the failings of other powers. When in 750 the Lombards seized the Exarchate, the doge gained independence, reigning over the islands and the lidi with unlimited powers. By 810, Charlemagne, the self-proclaimed heir to the (western) Roman Empire, had absorbed the Lombards of Venetia into his own kingdom and began to set his sights on Venice. In this instance the Byzantine fleet came to the defense of the peoples on the lagoon. When Charlemagne's son, Pepin, sacked Malamocco on the Lido that year, the islanders transferred their political capital to the cluster of islands around Rivoalto in the center of the lagoon. Gradually the Franks retreated, and Venice achieved semi-autonomy, establishing the center of government (*dogado* in Venetian) on the island of Rialto. In 827 the Venetian *ducato* came under the religious authority of Aquileia, which temporarily became a sort of mother city for the Christian polity. Centuries later, the city's blacksmiths would celebrate Venice's victory over Aquileia's patriarch during Lenten season by butchering pigs on the Fat Thursday of Carnival, but some vestiges of Aquileia's tenure remained, such as the Friulan liturgical rite in the ducal Basilica of San Marco. In 828 the Venetians replaced their patron saint, Theodore, with Saint Mark the Evangelist, whose body they pirated from Alexandria. (Plate I). Saint Mark's symbol, the lion, became synonymous with Venice's expanding dominion, and his body became an essential relic for the city's protection, to sanction the established political order and to foster civic loyalty.

3. Engineering the Island Parishes

The construction of the floating city was a remarkable technological feat, an essential part of the city's eternal allure. The principal challenge of the early settlers on high banks such as Rialto was to subjugate the sea and create dry land masses. Plot by plot, workers, largely from the noble houses and principal religious orders, drained and consolidated the soil, bringing in dirt, gravel, and even trash, where once there had been water. Early construction workers excavated canals, using mud to raise the level of land. The city then expanded with the addition of new landfills around its edges. (Map 1).

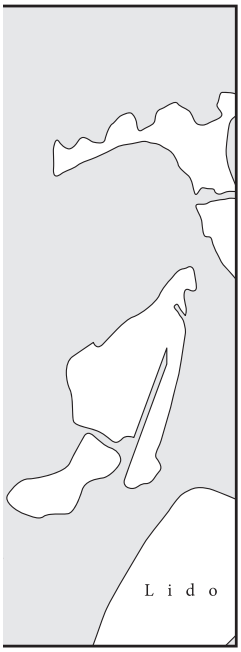
Rialto and San Marco were certainly the most important settlements, but they were not the oldest. The fisherman colonies around San Angelo Raffaele and San Niccolò dei Mendicoli, in the district of Dorsoduro on Venice's southern flank, reputedly originated in the seventh century. San Pietro di Castello, a tiny island at the tail of the Venetian "fish," east of San Marco, also preceded Rialto. It was founded as early as 764, and became the seat of the Venetian episcopate in 775. Principally, however, it was the central zone of the city, San Marco and Rialto, that grew first. Churches were built in both parishes in the ninth century based on the classical prototype of the Greek cross. Rialto's San Giacometto (Fig. 1), with the clock tower on its façade, was the oldest, but the Basilica at San Marco, the chapel of the doge, was the city's principal church. Residents in the eastern section of Santa Croce, on the northwest side of Venice, also built churches in the ninth and tenth centuries, including San Giacomo, San Simeone Grande, and Santa Maria Mater Domini. The northwest district, Cannaregio, began development slightly later, with Santa Fosca in the tenth century and San Marcuola in the eleventh century, and it was slower to fill. It was still a peripheral area in the fifteenth century, largely housing the crafts industries.

The Christian church defined Venice's topographical divisions from the outset. Each island corresponded with a parish. In 812 there were little more than a dozen island parishes around Rialto. In the following two centuries, the churches acquired *campi*, literally drained and consolidated fields, each with a residential development along transverse streets. By the tenth century there were seventeen parishes located east and west of the river mouth that formed the Grand Canal. Their configuration, with seven situated on the left bank between San Bartolomeo and San Marco, and ten on the right bank, formed a U-shaped canal (*rio*). The four major churches abutting the canal, San Giovanni Degolà, San Giacomo del Orio, Sant'Agostin, and San Polo, became central axes of communication via water.



By 1100 the Venetians had constructed almost seventy island parishes, whose overall form continued to evolve as tidal waters deposited silt. Builders made great efforts to ensure that the natural flow of the tides was not disrupted, as the canals and the tides served as their sewage system. Moreover, water was their most vital form of transporting goods and materials. Parish borders acquired firmer lines. The areas between San Marco and San Samuele and between Santa Maria Formosa and Sant'Apostoli teemed with new residents, such that the city was propelled to expand further by adding new landfills to its periphery. Ultimately, Venice resembled not just a fish but a Byzantine mosaic, with canals separating irregular and multishaped plots of land that had been drained and reclaimed. Its asymmetrical shape was the product of silt deposits continually sculpted by the ebb and flow of the tides.

While church building gave physical form to neighborhoods, social organization was by no means the purview of the religious hierarchy. On the contrary, it was the elite families that dominated the island parishes in the early centuries of the city's formation, families such as the Participazi at the Rialto and the Orio and Gradenigo at San Giovanni Elemosinario. The islands were in essence family estates, clustered in blocks, with enclosed courtyards cut off



Map 1. Venice (twenty-first century). Map by Harry D. Johnson, Department of Geography, San Diego State University.

Figure 1. San Giacometto di Rialto. Restored in the eleventh and seventeenth centuries. Location: Venice, Italy. Photo credit: J. M. Ferraro.

from pedestrian traffic. The clients and retainers of the most powerful dynasts domiciled near these stately dwellings, while the humbler folk lived behind them, on traverse streets.

Each parish exhibited unique characteristics but also belonged to an integrated network. The community chose its own patron saint, staged its own festivals, congregated around its own market center, constructed its own bell tower, and developed its own customs. Each colony was an island, separated by canals and basins and navigable only by watercraft. Every island had a central square with a church usually facing a canal; a wharf nearby to bring in goods and fuel; the opulent homes of the church's richest donors lining the perimeters of the square; and the more modest dwellings of ordinary people occupying the narrower alleys behind them.

The parish accommodated two main forms of transportation, watercraft and foot traffic. (There were only a few horses in Venice.) Wealthy households owned private gondolas for their own transportation and small flat-bottomed boats for carrying supplies. Among the watercraft serving the lagoon were the small, wooden fishing vessel named *sanpierota*; the larger, sailed *topo* for big-scale fishing; and the low-lying *sandalo da s'ciopo*, used in shallow waters to hunt duck and other game. While only the wealthy could afford private *gondolas* with rowers, the city did provide public transportation by *traghetto*, a gondola propelled by two oarsmen that normally crossed the Grand Canal or taxied merchants to and from the mainland.

THE GONDOLA

The crafting of the 280-piece *gondola* was complex. The frame was made of oak planks that were first bathed, then gradually warped over heat and then given several coats of paint. (It was only after 1633 that *gondole* were painted black, in a measure by the Venetian government to restrain excessive ostentation.) The shape of the rowlock, carved from a block of walnut or cherry, and the hull, were adjusted to accommodate the size of a gondolier. One side of the gondola was broader than the other so that it heeled and yawed to starboard. The gondolier controlled its direction by standing at the stern with one leg forward and guiding his oar. The oar was carved from a single block of beech, with a ribbed blade and a round, smooth surface where the propeller joins the notch in the rowlock. The floating surface was very small, measuring approximately thirty-six feet in length by five feet in width. The prow was decorated in iron, in the shape of a doge's hat and representing the six Venetian districts. The place where gondolas are made and repaired is called a *squero*. One of the most picturesque gondola yards in Venice today is at San Trovaso, built in the seventeenth century.[2]

Walking was the other alternative to boating. The pedestrian's perspective of the developing city emerged during the twelfth century, as each island established a network of earthen footpaths, generally running at right angles to the canals. Larger thoroughfares (*calli*) traversed the footpaths, interrupted at intervals by large (*campi*) and small (*campielli*) open spaces. Over time, these pedestrian walkways formed a dense maze of asymmetrical routes. Bargemen ferried commuters across the canals dividing one island from another, but people also traveled on foot across crude wooden bridges; these were built of planks atop pilings or lashed-together boat hulls that were set at odd angles to link these floating parish communities. Among the early pedestrian hubs were San Giacomo and San Bartolomeo, on the right and left banks of Rialto, respectively.

The evolution of footpaths, with bridges connecting the once isolated islands, developed a new sense of community, as did the evolution of guilds after 1150. Street names recognized vocational activities as well as ethnicities in addition to the preeminence of noble families and ecclesiastical orders. Each guild or craft had a *ruga*, the term used to designate a pathway with a row of market stalls and workshops. Milk vendors were on the Calle del Pestrin; bakers on the Pistor; fruit vendors on the Frutarol. The silk weavers in Cannaregio worked on the Fondamenta degli "Ormesini," a kind of silk originating in the Persian Gulf. The arrow smiths were on the Frezzerie near San Marco; the cloth sellers on the Mercerie; the sword smiths on the Spaderia. Murano attracted glassworkers from Padua, the Friuli, and the Balkans. Many other immigrants from the Balkans became domestic servants. Where priests (*preti*) and nuns (*muneghe*) trod, streets took their names. Great noble families also named the pathways leading to their principal locales, as did the immigrant groups from Dalmatia (Schiavoni) (see Fig. 18 in Chapter 4), the Ottoman empire (Turchette), the Armenians (Armeni), and the Germans (Tedeschi).

4. Urban Morphology

Despite Venice's commonalities with other Italian cities, it is important to underline at the outset that Venice's aquatic environment, and associations with foreign lands via the sea, inevitably endowed it with a uniqueness all its own. Venetian survival depended on taming the tides, in contrast with the land-borne cities that instead conquered their hinterlands, razing forests and irrigating arid soil. Unlike the inland settlements of Florence and Milan, for example, the city's wealth did not originate with agricultural productivity. Venetian women and men grew some produce, such as beets, cauliflower, and scallions, in small gardens and orchards, and they raised pigs and hunted

small fowl in addition to fishing. However, they also boated in their victuals and raw materials from the Veneto, trading salt for other supplies. Moreover, they consumed entire forests to build their city, their watercraft, and their fleet. The inhabitants of this thriving port mainly subsisted on a diet of fish, still today an integral part of the city's cuisine, and profited from the swelling tides of trade. They supplied the hinterland valleys of the Adige, Brenta, Piave, and Tagliamento with fish and salt and depended on them for other alimentation and raw materials. The rivers were vital, both as a means of transport and as trading depots, for the tiny gardens on the lagoon could not adequately feed the city's inhabitants. The Sile north of Venice connected Venice and the greater lagoon to Treviso and from there overland to Germany. The Brenta linked Venice and Padua; from Verona, the Adige was a stepping-stone to Trent, Bolzano, and the Tyrol; while the Po and its many tributaries were major gateways to northern Italy.

Another distinguishing feature of the floating city was the absence of walls. Instead, the Adriatic Sea cushioned Venetians from potential marauders, making the development of a navy essential. Already by the year 1000 Venetians proudly hailed a small fleet that sailed around the Mediterranean, keeping competitors at bay. Elsewhere in Italy, towns fortified their perimeters heavily against bands of hungry potentates and raised or hired armies. Powerful feudal magnates, often bishops, were seizing the lands of feeble kings but were in turn being challenged by emerging cities. Most of northern Italy, save Venice, paid homage to a line of German dynasts after 962, while papal territory was a precarious Roman island stretching only part of the way across the width of the Peninsula. The clash between popes and emperors raised havoc in the Italian cities, as noble clans took sides and pitched battles. Venice, on the other hand, was removed from this medieval drama. With the sea as a natural barrier, the city only erected small fortifications at its outer limits: at Mestre, the gateway to Venetia, and at San Nicolò on the Lido, the principal route to the littoral islands and to the Adriatic Sea. Rather than being expended on feudal warfare, human energies were devoted mainly to creating a commercial empire, especially between 1190 and 1220. Moreover, as historian Elisabeth Crouzet-Pavan rightly emphasizes, the morphology of the islands, the climatic conditions of the lagoon, the isolated island parish settlements, and the constant effort to tame the seas and the tides required tremendous organization as well as a sustained concentration of human capital and energy.[3]

According to architectural historians, commercial expansion in the three centuries following the millennium became critical to the city's physical appearance. The Venetians achieved hegemony along the Adriatic coast and founded permanent colonies in the Aegean; they grew wealthy with the