Puentes, Civilizaciones y Cultura

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There are innumerable methodological approaches to teach a foreign language. I especially value what the National Standards of Foreign Language Learning (1) calls the "5 Cs" - Connections (among disciplines), Comparisons (between cultures), Communication, Culture and Communities. My ultimate goal is to provide my students with the tools - grammar and vocabulary - to be able to communicate in Spanish. I always try to do so through the study of identity, society and culture in the Hispanic/Latino world. It is key for high school students to understand they live in a multicultural society in which respect is fostered and valued.

My goal is to do so in a meaningful way and, as an educator I also aspire to encourage an appreciation of global consciousness and tolerance towards other cultures. Finding innovative strategies to incorporate these cultural aspects is a challenge that forces me to engage my students through related areas of study. This allows me to introduce history, art, geography, literature and other disciplines in the classroom as well as basic but necessary skills like critical thinking.

Through *Puentes, civilizaciones y cultura,* students will learn history - how the Romans invaded *Hispania* (the Iberian Peninsula) in 219 BCE, during the Second Punic War, and how they built aqueducts, bridges and roads. Students will also learn basic art history features in order to recognize and differentiate styles and also, basic architectural concepts such as form, materials, construction methods and aesthetics. They will reflect on how bridges are built in order to connect people and communities. Students will learn Spanish geography as well as the importance of identity in the different regions that divide the country.

The unit is the result of the seminar *Bridges: The Art and Science for Community Connections*, led by Professor Martin Gehner at the 2008 Yale National Initiative. The primary goal of the seminar was to capture the imagination of people to see the beauty of their environment and of human interrelationships (2) by learning everything about bridges; from the rationale for creating bridges, their historic and current contexts, the inception to use, format for planning, design and engineering, structures, materials, and their environmental impact.

Puentes, civilizaciones y cultura intends to present a multilayered purpose. First of all, it aspires to introduce students to art since they have not been sufficiently exposed to it. As a matter of fact, our school does not offer it as a subject. With the present unit, I am hoping to be able to trigger at least an interest in art by identifying the value of visual language. Ideally, I would like to motivate students enough to start a habit by which they are able to recognize, describe, analyze and interpret various pieces of different art styles, focusing in this case on Spanish bridges. A second goal is to introduce students to Santiago Calatrava, a

brilliant contemporary Spanish architect, engineer and artist. I have found out through the years that students in general have a limited idea of Hispanic and/or Spanish countries and communities. I am hoping to be able to dismantle many false stereotypes they have of these countries, in this case specifically of Spain as an undeveloped country. We will take a close look at his architectural and engineering designs in order to be able to value and appreciate many of the bridges he has designed through Spain. The unit also seeks to explain how culturally diverse a small country like Spain can be by introducing students to geography and to the study of the different civilizations that have influenced it so greatly through history.

The unit is to be taught in Spanish III at Hill Regional Career High School. Career is a magnet school of about 700 students in New Haven (Connecticut,) for students interested in health sciences, business, and technology. The population is 53% African American, 27% Hispanic, 17% White, 3% Asian. About 67% of the students receive reduced lunch.

Even though the unit has been designed for students with what the American

Council of Teaching Foreign Languages (ACTFL) calls the "Intermediate Level" (3), it could be used on lower or upper level courses with proper modifications. Students at this level express their own thoughts using sentences and strings of sentences when interacting on familiar topics in present time; are understood by those accustomed to interacting with language learners; use pronunciation and intonation patterns which can be understood by a native speaker accustomed to interacting with language learners; make false starts and pause frequently to search for words when interacting with others; and, finally, are able to meet practical writing needs such as short letters and notes by recombining learned vocabulary and structures demonstrating full control of present time and evidence of some control of other time frames. Most of the class activities for the present unit will be conducted in Spanish, using English whenever necessary and to clarify terms and ideas. (4)

The unit will be taught over a period of time of about 15 to 18 classes, each of which is 82-minute long. These long periods allow me to carry diverse strategies and/or hands-on activities.

The unit will start with a brief overview of Spain. I will make sure they understand the importance of identity within different regions in Spain, set since these *comunidades autónomas* were under the influence of different civilizations through history, including the Romans, the Celts and the Iberians. We will then, as mentioned, concentrate in the Roman architecture, followed by some of the medieval bridges, and finally, we will learn about contemporary bridges to end up with Calatrava´s work.

Introduction to the History of Spain and its Civilizations

In order to introduce the students to the bridges spread throughout Spain, it is essential they get basic notions of history of the country. First of all, we will be looking at historical bridges. Second, we will study Spain as a place where different peoples, styles, theories and cultures are mixed together.

One of the most characteristic aspects of the Spanish culture and its history is the succession of different ancient civilizations that settled in the Peninsula, due to its strategic and unique geographical location between the Atlantic and the Mediterranean. The *íberos* (Iberians) originally from the North of Africa, were the first to settle; then, the *celtas* (Celts)—a typically Aryan civilization start arriving through the Pyrenees. The

merger of the two became a new ethnicity called the *celtíberos* (Celtiberians) grouped into several tribes: *cántabros* (Cantabrians), *astures* (Asturians) and *lusitanos* (Lusitanians) that gave name to their respective territories.

The Phoenicians, attracted by the mining wealth, were next. They founded several commercial settlements along the coast, the most important of which was *Gadir* (or Gades; Cádiz nowadays.) Later on, during the 7 th century BCE, the Greeks established their first colonies on the northern Mediterranean coast. They founded various cities such as *Rhodes* (Rosas), *Emporion* (Ampurias) and Sagunto. The Phoenicians attracted the Carthaginians and they ended taking over most of the peninsula. It was then when Rome started its dispute defending the Hellenic areas in the Second Punic War (218-201 BCE.) Shortly after Rome's triumph, the Romans started the conquest of Spain, which was to be under Rome for six centuries.

Despite having defeated their rival for Mediterranean power, the Romans took another two centuries to bring the entire Iberian Peninsula under their control through an expansionist policy that derived an antagonism of practically all of the tribes of the interior. By the year 195 BCE the peninsula is divided in two provinces: *Hispania Citerior* (East coast from the Pyrenees to *Tarraco* (Tarragona)) and *Hispania Ulterior* (the South, today's Andalusia.) The domination was total by the year 19 BCE, when the peninsula was divided in 3 provinces: *Betica*, *Tarraconense* and Lusitania.

The Romanization process was complete soon (110 BCE) since the language, Latin, the traditions and the economy were fully absorbed to the point that Hispania produced writers such Marcial and Lucano, philosophers like Seneca and emperors such as Trajan, Adrian and Theodosius. Rome also left very important social institutions such as Roman law, municipalities and the Christian religion. But above all, and more relevant to the present unit, many architectonical wonders: aqueducts, bridges and theaters, and roads.

In 411 AD some Germanic tribes signed a treaty with Rome by which they could establish military colonies in the Empire. By 264 AD, the Francs and the Suevi invaded the territory and temporarily occupied *Tarranco* (Tarragona,) the capital. This did not last too long since they were soon defeated by the Visigoths. Between the years 568 and 586, the Visigoth king Leovigildo expelled the imperial officials and tried to unify the peninsula. This would mark the end of the Roman Empire, even though this was more of a gradual process.

The Moors arrived to the peninsula in the beginning of the 8 th century through the Strait of Gibraltar. They conquered the territory very quickly: by 718, they dominated almost the entire territory, except a small stronghold in Covadonga (Asturias.) The Muslims were defeated by a small group of Christians led by Pelagius, Don Pelayo - a Visigoth nobleman, now a hero credited with the beginning of the *Reconquista*, in the Battle of Covadonga in 720.

This Reconquest from the Muslims took eight centuries to be completed. The era of Muslim domination is divided into three periods: the Emirate (711-756), the Caliphate (756-1031) and the *reinos de Taifas* (Kingdoms of Taifas) - small independent kingdoms, 1031-1492.

From about the years 711 to 1492 and concurred with the *Reconquista*, a period known as *La Convivencia* (the Coexistence) takes place. During these years, Jews, Catholics and Muslims lived together in peace sharing cultural ideas, art and religious tolerance. Toledo was the center and the best example of this *Convivencia.* A good example of this would be *arte mudéjar* (Mudéjar style).

In 1492 Granada, the last stronghold of the Arabs in Spain was conquered. The same year, Elizabeth of Castile and Ferdinand of Aragon -the Catholic Monarchs—united the two kingdoms marrying and, Christopher

Columbus, sent to the Indies by the Crown of Castile, discovered the Americas.

The 16 th and 17 th centuries were when the Spanish Empire reached its zenith; the country became the first power in the world and the European politics revolved around it.

Geography: Comunidades Autónomas

Neither completely centralized nor genuinely federal, the territorial structure of the government of Spain was established by the 1978 Constitution. The territory is divided on *comunidades autónomas* (autonomous communities), first level political divisions. These autonomous communities are made up of smaller units called *provincias* (provinces), designed to perform the activities of the State; and, finally these are made of *municipios* (municipalities); which are granted autonomy to manage their internal affairs. Both the provinces and the municipalities are protected by the constitution.

Spain is currently made up of 17 autonomous communities, two autonomous cities (Ceuta and Melilla, in Africa) and fifty provinces.

The boundaries and powers of autonomous communities were established in individual *estatutos de autonomía* (Statutes of Autonomy,) a unique system of regional autonomy. The second article of the 1978 Constitution grants the right of self-government to the regions and nationalities that make up Spain (5). In order to exercise the right to self-government, an autonomy had to meet certain requirements like be granted to a province with historical identity, insular territories and two or more adjacent provinces with common economic, historical and cultural attributes. The constitution, nevertheless, allowed exceptions for autonomous communities to be constituted as such reserving the Parliament the right to authorize single provinces without a historical regional identity or to territories that are not provinces (the special case of Gibraltar) both cases authorized in the nation's interest.

The regions were constituted as autonomous communities between 1979 and 1983. The process closed in 1996 when both cities Ceuta and Melilla's statutes of autonomy were established.

Andalucía (Andalusia), *Cataluña* (Catalonia), *País Vasco* (Basque Country) and *Galicia* were granted autonomy as historical nationalities after a rather simple process. Others such as *Aragón* (Aragon), *Castilla la Mancha* (Castile La Manche), *Castilla y León* (Castile and León), *Extremadura* and *Comunidad Valenciana* (Valencian Community) were granted autonomy as communities sharing historical characteristics and made up of two or more provinces. As for the *Islas Canarias* (Canary Islands) and the *Islas Baleares* (Balearic Islands), both archipelagos were granted the autonomy as insular territories. In the case of *Cantabria*, *Asturias*, *Murcia* and *La Rioja* were granted autonomy based on their historical regional identity. *Navarra* (Navarre) was fairly different since it was granted autonomy through the update of medieval *fueros* (charters). The *Comunidad de Madrid* (Community of Madrid) was granted autonomy for the nation's interest since it was, and still is, the capital of the State. And finally, *Ceuta* and *Melilla*, even though cities, they were granted autonomy in exercise of the rights reserved by the Parliament.

(The following is an image of the seventeen Spanish Autonomous Communities)

The government of the autonomous communities is based on a division of powers comprised by a Legislative Assembly whose members are elected by universal suffrage according to a system of proportional representation; a Government Council with a president with executive and administrative functions. The president is selected by the Legislative Assembly then, there is a Supreme Court of Justice, under the Supreme Court of State, in charge of the judicial organization within the community.

All these autonomous communities have legislative and executive autonomy, their own parliaments and regional government. The distribution of power may be different and depends on their *Estatutos de Autonomía* (Statutes of Autonomy).

The Statutes of Autonomy are the institutional law of the communities. They established their denomination based on their geographical limits, historical identity, organization of the government institutions, etc. As for the government of the autonomous communities, it depends on a Legislative Assembly whose members are elected by universal suffrage is basis of proportional representation; a Government Council, with administrative and executive functions led by a president, elected by the Legislative Assembly and nominated Juan Carlos I (the king of Spain); a Supreme Court of Justice, under the State's Supreme Court.

The provinces are named after their principal town, except *Â¡lava*, *Asturias*, *Islas Baleares*, *Cantabria*, *Guipúzcoa*, *Navarra*, *La Rioja* and *Vizcaya*. Two are the cities that are capitals of autonomous communities without being capitals of provinces—Mérida, in Extremadura; and Santiago de Compostela, in Galicia.

Roman Architecture: Bridges and Aqueducts

The Roman conquest in the peninsula dates from 218 BCD (with the landing of Scipio in *Ampurias*) to the year 19 AD, with the emperor Augustus, after the Wars with the *cántabros* (Cantabrian) and *astures* (Asturians). Their rule ended with the barbarian invasion, at the beginning of the 5 th Century.

Roman art could be divided in several periods: the Republic period (510-30 BCD), the emperor Augustus period (30 BCD-14 AD) and the Classic period (14- on).

Roman architecture - greatly influenced by Greek and Etruscan constructions- is an expression of the

practicality and functionality that led Rome to conquer and colonize the wide territory that formed the Empire. Being uniformity and monumentality, some of its most distinctive properties.

Other fundamental features of Roman architecture include the systematic use of arches and different vaults: medium barrel, furnace or edge-on structures; various materials ranging form stone-masonry; mortar-masonry, brick or concrete; monumental proportions as a representation of the greatness of Rome; importance of decorative arts such as mosaics and frescoes. The perfect example of all these characteristics would be the Pantheon in Rome, which is one of the most important buildings in the history of Western architecture.

There were many different manifestations of Roman architecture in Spain that could be divided into religious architecture, urban architecture, memorials, "cultural architecture" -theaters and amphitheaters- and, finally and most important for the purposes of the present unit, construction engineering.

All these engineered wonders were built to serve needs Rome had. They made an extensive network of roads (*calzadas*, in Spanish) in order to communicate effectively and increase economic and social relations in such a broad territory; it was essential to supply cities with drinking-water reservoirs and aqueducts, as well as to provide them with a sewerage network to clean waste efficiently; sea ports and lighthouses (*faros*).

Roman Bridges

Many of the Spanish Roman bridges are still in use. The extensive network of Roman roads in the peninsula needed many bridges. Roman engineers perfected them since they were key for access to cities that settled next to the rivers with defensive, and infrastructural - supply and drain- purposes.

Spain possesses an excellent collection of stone arch bridges. It is often difficult to distinguish the roman bridges from their later counterparts. Most of the bridges built later on, in the Middle Ages, were inaccurately considered Roman. Some of the elements to distinguish Roman buildings would include non-lancet arches; elaborated and often padded ashlars; rectangular pillars from the base with triangular or circular enclosed cutwaters; either horizontal or slightly tilted roads, usually more than 5 m. wide.

Puente de Alcántara (6), (Cáceres)

The Puente de Alcántara is one of the greatest Roman bridges. It was built between 105 and 106 AD by Caius Julius Lacer over *río Tajo* (Tagus river), it is 214 m long and it made up of six arches supported by five pillars and two supports at its ends.

At its center, there is a 13.5 m tall with a 11.5 m by 2.6 m rectangular base triumphal arc that rests on the central pillar of the bridge. There are massive stone retaining walls at each end.

Opposite the end of the bridge, there is a small votive temple, which has a nine-line original inscription on a marble block that includes the name of the builder and a quote that reads, "I have built a bridge which will remain forever". The bottom line of the inscription, which may be apocryphal, gives his full name: C. Julius Lacer. Another inscription in the southern face of the triumphal arch dedicates the bridge to Trajan and refers to the 5 [th] year of his reign.

The bridge was restored in 1543 and also in 1778, since it was damaged in 1707 during the war of succession. It was completely destroyed in 1809 during the Napoleonic wars and rebuilt between 1858 and 1860.

Puente de Mérida

Over the Guadiana River, the construction of this bridge was one of the basic facts for the settlement and development of *Emerita Augusta*, founded in 25 BCD and later on, one of the most important culture centers of the Roman world.

Made of concrete (*opus caementicium*) (7) and covered with big padded stone ashlars, the bridge is 792 m long and has 60 arches. Its construction was divided in sections. The first and second were built at the time of emperor Augustus. In order to strengthen both, they built a common cutwater that collapsed in the 18 th century. For all the restorations from then on, ashlars from the Roman Theater were used.

The first section, still purely Roman, consists of round 10 arches with clear spans between 6.50 and 10 m. In the pillars the Romans built round cutwaters in order to distribute the support.

The second section is much longer, made of 25 diverse aches. This is the part of the bridge that has had most of the structural problems and, therefore, most of the restorations.

After these two spans, Roman engineers made up to five extensions since the river suffered numerous flooding in the west bank. About 22 more arches were built in the times of Trajan.

Puente de Salamanca

Called the *Puente Romano*, this bridge crosses the River Tormes at the edge of the old town, southwest of the two cathedrals. It is hard to date since there are documents from the times of Augustus, Trajan and Vespasian. Most experts tend to attribute it to Trajan, though.

This bridge was key to the development of the city since it was built in order to access it. The bridge is 356 m long and has twenty-six spans. It is divided into two parts: the Roman one - closest to the town - and the 17 th century extension; both separated by a pier. The Roman bridge has 15 spans (in the north end) of about 9.5 m with pier widths of 2.5 or 2.6 m from 1 to 14, and pier 15 is 6 m wide. The overall length of this part to the centerline of pier 15 is about 201 m. Made of granite; it has square buttresses at each pier, resting on simple triangular cutwaters.

The other newer eleven spans, range between 5.5 to 10 m. long, the pier widths from 3.2 to 3.9 m and, finally, the overall width between the centerline of pier 15 and pier 26 is of 155.2 m long. This part of the bridge has prominent high cutwaters in most of its piers.

Puente de Córdoba

Over the Guadalquivir River, and also referred to as *Puente Romano*, was built at the time of Augustus as well.

Out of the 17 spans the bridge had when built, there are only 16 left, of which 14 th and 15 th are left form the original. The rest were restored more due to aesthetical reasons than structural, since it had a really strong abutment support. Its spans range from 9.5 to 12 m width.

There are many more Roman Bridges in the Peninsula to be considered, such as the P*uente de Alcantarilla* (Alcantarilla´s Bridge, Seville), *Puente de los Peroches* (Peroches´ Bridge, Córdoba), *Matapozuelos* (Valladolid), *Hoz de Lumbier* (Navarra), *Aluenda* (Zaragoza) or *Trespuentes* (Â¡lava).

Aqueducts

It is impossible to speak of bridges without referring to aqueducts since they are very similar. The only differences would be that an aqueduct usually is narrow and most of the times, higher and longer than a bridge. An aqueduct is a channel to carry water, and it may be on the ground, below the ground or, above it (in this case, it would become a bridge).

Acueducto de Tarragona

Also called *Puente de las Ferreras* or *Puente del Diablo*. Of an Augustan structure, it was built in the 1 st century. This remarkably complete aqueduct was placed about 4 km north west of Tarragona (capital of the Roman province *Hispania Citerior Tarraconensis*).

Still in an excellent condition, this aqueduct was used until the end of the 18 th century. It was built in two tiers, with eleven arches in the lower one and twenty-five in the upper. The aqueduct is 217 m long and it reaches 27 m height. As for the clear spans, they range from 5.9 to 6.4 m.

Acueducto de Segovia

This aqueduct is probably the finer not only because it is the best preserved of all -still in use-, but also because of its design and size. Made of unmortared granite ashlars. The date of construction is not clear since it lacks inscriptions, even though it looks like there was one in the past. Scholars agree on the second half of the 1 st century AD and early years of the 2 nd , either under Vespasian or Nerva.

It carries water from the *río Frío* (Cold River) over the *Plaza del Azoguejo* (Azoguejo square), in the center of the city, to the walls of the ancient Segovia for about 18 km. The bridge part of the aqueduct has a total of 199 semicircular arches (about 728 m). The maximum height is 28.5 m above the ground. The alignment is not straight, so it could be divided in four different parts, being the best known the approach crossing the Plaza de Azoguejo, with 43 double arches and 2 single ones. The upper span is 4.8 m clear and the lower 4.2 m clear.

Other noteworthy aqueducts in the peninsula would be *Acueducto de los Milagros* (Mérida), *San Lázaro* (Mérida) and *Acueducto de Termancia* (Montejo de Tiermes, Soria).

Medieval Bridges

Romanesque Style

The Romanesque style in Spain is a regional blend of the style in the rest of Europe in the 11 th and 12 th centuries and, the influence from the Byzantine, Pre-Roman, Roman and Germanic styles.

Some of the most distinctive features of the Romanesque style are its simplicity, sense of symmetry and order of elements, as well as the didactic purpose of paintings and sculptures. Other characteristics include thick buildings with few small openings, semicircular arches, barrel and groin vaults, sturdy piers to support the arches, massive drum columns to support thick walls and heavy vaults and large towers.

The Romanesque style spread in the northern half of the peninsula since the Muslims controlled the south. Main focal points in Spain would include Orense and Lugo in Galicia; Palencia, Burgos, Soria and Segovia in Castile-Leon and, finally territories that correspond to the current autonomous communities of Asturias, Cantabria, La Rioja, Alava, Navarre, Aragón and Catalonia.

The experts tend to divide the development and influence of the style in

three phases. The first period, when it comes to the peninsula through France and expands through Catalonia and Aragón, during the 11 th and first years of the 12 th centuries; the second period, extended first through the *Camino de Santiago* (the Way of St. James); and finally the late Romanesque period - a blend of Romanesque and Gothic features, in the late 12 th century.

Romanesque Bridges

Romanesque Bridges shared some common qualities: they had an odd number of spans, the lateral ones were smaller - their clear span distance increased as they got closer to the central one, which was the biggest-; semicircular arches and lancet arches in the late Romanesque; buttresses for the arches to rest on; use of cutwaters to mitigate the pressure. Some of these bridges had parapets.

Some of the most important Romanesque bridges in the peninsula are: *Puente de Covatillas* (Segovia), *Puente de la Reina* (Navarra), *Puente de Cangas de Onís* (Asturias), *Puente de Besalú* (Gerona), *Puente de Frías* (Burgos) and *Puente de Capella* (Huesca).

Puente de Cangas de Onís (Asturias)

There is controversy to catalogue this bridge: some authors consider it Roman and date it as originally being from the second century AD, but it clearly is not Roman in its form since all three main arches are pointed arches. (8)

The total length of the bridge is 92 m. It has three main spans of about 7.7, 21.6 and 9.5 m, followed by other three smaller ones of 6.8, 4.3 and 3.6 m. The roadway rises abruptly to the center of the main span. Its picturesque appearance is intensified by the large metal crucifix hanging under the center of the main span, as well as by the creeper hanging from it.

Mudéjar Style

Mudéjar the result of a combination of Muslim, Christian and Jewish traditions merging together during the *Convivencia*. It translated into different layers of society and culture, were architecture and art was important. The mudéjar emerged as an artistic style in the 12 th century and its influence lasted until the 17 th century. Sometimes some of this art influenced Romanesque, Gothic and Renaissance's art.

The Mudéjar style did not incorporate new shapes or structures, unlike, for example, Romanesque or Gothic. It was more a translation and interpretation of architectural and ornamental Islamic motifs or elements, such as the use of brick as a material, geometric forms, tile work, carved wood and/or plaster and ornamental metals into other styles or structures.

The emergence of Mudéjar as an art style should be dated around the 12 th century by the powerful city of Sahagún, a community/settlement in the *Camino de Santiago*. This town became a strong religious and

economic center during the 12 th and 13 th centuries, to the point where they hired crews of masons from Toledo to expedite many architectural projects at that particular time. The style extended to the rest of the kingdom of León, Â¡vila, Segovia, Toledo etc. and to other cities such as Cuéllar, Toro, Madrigal de las Altas Torres or Arévalo. The places where it became most developed where in the Aragón area and the cities of Teruel, Zaragoza, Tauste, Calatayud, etc. Mudéjar later on by led to a fusion between the incipient Gothic style and the Muslim influences that had previously been superimposed on late Romanesque. A particularly fine example is the Mudéjar *Casa de Pilatos*, built in Seville in the early 16 th century.

Mudéjar Bridges

Devil's Bridge (Puente del Diablo, Martorell)

This bridge was originally Roman but completely rebuilt by the Moors. It crosses the *río Llobregat* at Martorell (province of Barcelona). There is disagreement on the date. Some scholars point the 2 nd century A.D. as the most reasonable option. The bridge was rebuilt in 1283, under Mohammed II, with a Gothic arch (this is the main reason I am inclined to believe this is a mudéjar bridge instead of Roman). It was repaired in 1768, 1928 and 1933; destroyed in 1939 during the Civil war and rebuilt in 1965.

With a main clear span of 37.3 m and with a small stone chapel on the top and a triumphal arch at the eastern end, it is one of the most spectacular of ancient bridges in its present form. The secondary arch at the right bank has a clear span of 19.1 m with a minor opening above it and a small arch of about 6m, set high near the left bank

Gothic Style

Gothic architecture evolved from the Romanesque architecture, changing some basic concepts or even opposing them: Gothic implies light, color, elevation, space to proclaim the gory of God. For the most part there was not clean break, but the Gothic style developed mainly from the last years of the 12 th to the 26 th centuries.

The common defining characteristics of the style are: pointed arches; very high towers and roofs; narrow stone walls and buttresses protruding in the outside part to hold them; ribbed vaults; clustered columns; tracery and stained glass. This is the style of great churches, cathedrals and abbeys, castles, palaces and universities.

In Spain, there was a clear influence of the Moorish art that gave the Spanish Gothic a regional different flavor. Some of these specific features included the use of the horseshoe arch; pierced stone tracery; rich surface decoration, including geometrical patterns and. excessive ornamentation.

Gothic Bridges

Gothic Bridges do not differ greatly from Romanesque bridges. Fernandez Troyano in his article (9) points out some general characteristics shared by mediaeval bridges without specifying whether or not they are Romanesque of Gothic like: slenderness of arches and the relation between pier width and the arch span; radial voussoirs. He does identify a couple as being exclusive of the Gothic style when he mentions symmetrical triangular cutwaters that rise up to the road platform; relieving arches (or spillways) or great spans of some of the arches. As mentioned previously, it is difficult to separate styles and decide abruptly.

Some of the major greatest Gothic Bridges in Spain include *Puente deSan Martín* (Toledo), *Alquézar* (Huesca), *Puente del Diablo* (Jaén), *Motrisol* (Cataluña), *Puente de Piedra* (Zaragoza), *Pont Vell* (Manresa) and *Puente del Arzobispo* (Cáceres), to mention some.

Puente Nuevo de Ronda (Málaga) (10)

The New Bridge (in English) is one of the symbols of Ronda. This magnificent bridge was carried out through two major projects. The first one in 1735, under King Felipe V, consisted of an arch of 35 m in diameter, but that collapsed six years later. The second project, conducted by José Martín de Aldehuela, begun in 1751 and was completed by 1793.

Made of stone masonry taken from the Tajo´s gorge, the bridge consists of three levels: the inferior level with a semicircular arch that serves as the foundation; the second level with a 98 m high central semicircular arch and, finally the superior one with 2 semicircular smaller arches in both sides that support the previous one, between these two, there is an internal space that served as a prison in the past and it now hosts the *Centro de Interpretación del Puente Nuevo* (11), a museum about the bridge.

Contemporary Bridges

Santiago Calatrava Valls (1951-)

Upon entering Calatrava´s website (12) the visitor is greeted by an artist drawing an eye. The camera zooms in to first reveal Santiago Calatrava drawing and then a couple of images of his City of Arts and Sciences planetarium in Valencia (Spain, 1995-98). After, geometrical forms in various of his building moving to end up with an image of the Athens Olympic Sports Complex (Greece, 2004). This is the perfect synthesis of who he is and the kind of work he does.

Santiago Calatrava is not only one of the world's most notorious, innovative and talented architects but also and engineer and an artist. He is able to beautifully combine technology and architecture, art and science, structure and movement in projects that would seem impossible on paper. He successfully represents and generates novel and complex kinds of curved surfaces, which are all derived from nature and human forms.

Born in Benimamet, near Valencia, Spain, on July 28 [th] , 1951. He went to school in Valencia. He started his artistic inclination early, when he was only 8 years old, he enrolled the School of Arts and Crafts to learn drawing and painting. Years later, when he was 13, his mother sent him to Paris as an exchange student, so he could learn French and also be more exposed to art. Four years later he went to Zurich to learn German. He went back to Paris to study at the *Ãˆcole des Beaux-Arts* in June 1968, when he finished high school to find himself in the middle of the famous students protests and strikes that caused the eventual collapse of the Charles De Gaulle government. Not wanting to loose time, he went back to Valencia to reenter the *Escuela de Artes y Oficios* (School of Arts and Crafts), studying there for the rest of the academic year.

In 1969, he entered the *Escuela Técnica Superior de Arquitectura de Valencia*, in time to experience the repercussions of the Parisian revolt to the extent that the regular program of education was interrupted. Calatrava, unhappy by the situation, decided to develop with some other students, a course that involved visiting and documenting Iberian vernacular structures as opposed to official or mainstream architecture;

somewhat an act of defiance for a young architect. Not only that, but also the prospective of self-education fitted his self propelled temperament as it had for Le Corbusier, the great rebel of the old avant-garde, who was in a great extent, and autodidact (13).

In 1974, after graduating and after taking a postgraduate course in urbanism, Santiago decided to go back to Zurich, this time as a student in the department of civil engineering at the Swiss Federal Institute of Technology (ETH), from which he graduated five years later. He then started to work in his doctoral thesis titled *On the Foldability of Space Frames*, as well as working as an assistant at the Institute for Building Statics and Construction.

The dissertation raised the importance of analysis in creative design. Calatrava investigated how to design complex structures that could move and/or be transformed, without changing how the pieces were joined together. This was a new concept for most architects who, at the time, were devoted to immobile, stable structures. He also studied how to represent and generate complex and novel kinds of curved surfaces. This is what Tzonis (13) refers to as the analysis part of Calatrava´s work, to immediately talk about the analogy between figures represented in his sketchbooks, where the human body resembles folding structures. These analogies to the human body are a powerful tool to confront scientific and technological problems. The combination of both -analogy and analysis- added to Calatrava´s genius make him one of the best contemporary architects.

Calatrava´s Bridges (appendix 1)

Strategies

Each part of the unit will be accompanied by written questionnaires that will connect aspects previously used and that will facilitate the ability to first organize their ideas and then provide support for them. This phase of the unit is very important, since these students at this age are capable of reflecting and reinforcing this critical thinking in order to have their own points of view without having to repeat or agree with other people's points of view or ideas.

In order to help students understand different art styles and their representations, they will be introduced to Spanish history, especially the Pre-history, when many different cultures and civilizations settled in various parts of the Peninsula. In this part of the unit, students will be prompted to read simple texts in Spanish provided by the teacher, along with various power-point presentations, to illustrate where the settlements were, and examples of the art they produced. One of the activities that will be introduced in this stage of the unit will consist of introducing students to the French comic character called Astèrix (14). Students will read different sections of *Astèrix en Hispania* (15) in the target language. Since the comic has many different layers and could be difficult for students to understand all the puns and criticism, the teacher will provide them with different activities and tasks: after reading, understanding and reflecting in a couple of pages in class, the teacher will provide students with a copy of the same pages in which the teacher had previously erased all the dialogues. Students then will have to create their own. As a complementary activity for this section, students will visit Astèrix´ Spanish webpage (16) and will send the teacher an electronic postcard using the so-called "*Multimediatix*" link. A rubric for this exercise will be provided.

Once they are historically situated, they will learn about the geographical division and the cultural particularities of these *comunidades autónomas*, *provincias* y *municipios*. After going over the material and learning to locate them in a map, there will be different language related activities such as cloze texts (17), audio exercises, and matching exercises (matching words with their definitions).

After this, all of the students will be divided in groups of four of five and will be assigned to produce a large map of Spain with all the *comunidades autónomas* represented. The idea is to post these maps around the classroom so students will be able to first, locate the different bridges when we talk and learn about them and, second when they choose the bridges they will present to their peers as part of the final project, they will also have to draw them and place them in the map. As I mentioned already, I want students to become familiar with the geography of the country.

The part of the unit pertained to Santiago Calatrava will be more interactive since students will be asked to complete different tasks working individually and gathering information from Santiago Calatrava´s website first (12) and then surfing in the Ciudad de las Artes y las Ciencias´ website (in its Spanish version) (18), compound of buildings designed by Calatrava.

As for a close up and detailed study of some of Calatrava´s bridges, the teacher will explain and show images describing some of them in terms of what kind of bridge it is, when relevant, and how the forces work in those bridges.

The teacher will bring a speaker, an architect (a Spanish speaker), to the classroom to talk about his/her job and then to talk about bridges. Students previously would have written sets of questions in form of an interview in Spanish.

The last couple days of the unit, students will be divided in various groups in order to play " Bridges Jeopardy". There will be questions on the content presented during the development of the unit.

As a final project to close the unit, students will be asked to prepare a power point presentation of at least 8 Spanish bridges, based on their choices. They will have to provide detailed information -in Spanish- on the chronology, location, who the architect is (in the case of the most contemporary ones), characteristics… Students will have to present their power point presentations to the rest of the class.

Sample Lesson Plans

Lesson One: History

(This lesson plan is to be taught in a 82-minute class. However, it can be modified to teachers' needs)

Goals

Introduce students to the "Romanization" of the Iberian Peninsula; understand the importance of history as an essential part of the identity and devepment of countries; start thinking about art and architecture as absolutely necessary elements in everyday life.

Learning Objectives

As a result of this lesson students will be able to:

1. Practice their reading comprehension skills.
2. Build on their oral reading skills.
3. Read and gather information of a text written in Spanish in order to select the main ideas.
4. Develop understanding of other civilizations and cultures.
5. Broaden vocabulary.
6. Practice the preterit (*imperfecto* and *indefinido*) tenses.
7. Express relevant information in their own words.

Materials

Adapted brief text on the "romanization" of Spain, handout on the reading, graphic organizers, maps of Spain, power point presentation, LCD projector, Computers with Internet access, copies of *Astérix en Hispania*.

Initiation

"Pass the bull" strategy: I start all of my lessons asking students questions while passing around a foam toy (a bull). All these questions are related to material we have previously covered: grammar, vocabulary, and cultural aspects. It is a fun, useful strategy because it allows me to assess students daily and it helps to start the class on a good tone, since students like it. This time students will be asked to conjugate different verbs in either the *pretérito indefinido* or *pretérito imperfecto* forms.

Procedure

1. The students will get a graphic organizer in which they will write everything they know about the Romans (which, hopefully will be a lot since students at Career have to take two years of Latin)
2. The teacher will ask students and a volunteer will be recording the answers on the board.
3. Students and teacher will review the answers together making sure they are accurate.
4. The teacher will then give the students the brief reading comprehension text that they will first read silently while they underline vocabulary words or concepts they do not understand.
5. The teacher will ask different students to read the text out loud. Then, the teacher will ask other students to orally summarize the relevant information.
6. The teacher will show a power point presentation explaining the material on the reading, as well as pictures and maps. Students will be asked to take notes.
7. The teacher will, randomly ask students to read or even try to explain one of the slides.
8. Teacher and students will discuss the presentation briefly. The teacher will make sure all the concepts are understood and that the students have no questions.
9. The teacher will give students the handout with questions and activities (matching words and concepts, filling the blanks…) and assign it for homework.
10. The teacher will give students copies of the first couple of pages of *Astérix in Hispania*, where all the characters are presented. Students will be asked to read the descriptions.

Closure

To conclude the lesson the teacher will ask some students what character he/she likes the most and why.

Assessment / homework

As already mentioned, the students will complete the exercises related to both the reading and the Power-Point presentation; that way the teacher will detect if the students have understood the concepts.

(A follow up lesson will be necessary)

Lesson Two: Geography

(This lesson plan is to be developed in an 82-minute class)

Goals

Become familiar with the geography of Spain and be able to research relevant information independently.

Learning Objectives

As a result of this lesson students will be able to:

1. Practice their reading comprehension skills.
2. Learn about the different political divisions in the Spanish geography.
3. Research on particular topics in the target language.
4. Read and gather relevant information of a text written in the target language.
5. Expansion of vocabulary.

Special needs

This is a follow up lesson, students already know what *comunidades autónomas*, *provincias* y *municipios* are; they are also familiar with the map of Spain.

Materials

Computers with Internet access, printer, LCD projector

Initiation

Teacher will "pass the bull" asking students geography questions: e.g.: *¿Cuáles son las provincias en la comunidad autonomía de Castilla y León?* (What provinces in the autonomous community of Castile-Leon?)

Procedure

1. Teacher will ask students to log in the *Mapas Interactivos* website:

    tp://www.xtec.net/~ealonso/flash/mapasflash.htm, and will give them about ten minutes to at least complete the *Provincias de España puzzle (fácil)*, the *¿Dónde* tán...? Provincias de España map and the *¿Cómo se llama? Comunidades autónomas de España* map.

2. The teacher will pair up all the students and will give them the rubric with the information (e.g.: *Situación, provincias que la forman, capital de provincia, otras ciudades importantes, monumentos importantes, fiestas, ríos, sistemas montañosos*, etc) they will have to be complete by the end of the period.
3. Students will be asked to answer some of those questions orally before the end of the period.

4. Teacher will collect the work.

Closure

To wrap up the lesson the teacher will ask the students to write in a piece of paper what aspect of the *comunidad autónoma* they were working with they liked the most and why (this time the can answer in English if they want)

Assessment / homework

The teacher will provide students with two maps of Spain: one with provinces and another one with the autonomous communities to fill in with the names.

(There will be a follow up lesson in which students will share information on the community they worked in with the rest of the class)

Lesson Three. Architecture

(This lesson plan is to be developed in an 82-minute class as well.)

Goals

Students will

Learning Objectives

As a result of this lesson the students will be able to:

1. Reflect in the importance of architecture and how it affects everything in our lives.
2. Review basic bridges concepts they have already learned.
3. Review geographical concepts they have already learned.
4. Practice their oral Spanish skills and pronunciation by talking to a native speaker.
5. Improve their listening comprehension skills.
6. Practice reading comprehension skills.
7. Build on new vocabulary terms.

Materials

Power Point presentation on the Santiago Calatrava´s bridges in Spain, computer, LCD projector, computers with Internet access, printed copies of the Power Point presentation, rubric explaining the "Bridges Jeopardy" activity- how to write questions, Calatrava´s handout.

Special Needs

-Students need to bring the questions they have already written for the interview

-Visitor from the community: an architect

Initiation

The teacher will introduce the visitor to the students and will ask a couple of volunteers to explain to our guest what are we learning with the unit.

Procedure

1. The teacher will give students a hard copy of the Calatrava´s Power Point presentation so they can take notes slide by slide.
2. The teacher will show the Power Point Presentation on Santiago Calatrava, asking the guest to participate and/or make remarks on structures, materials, etc, in different slides.
3. After the presentation, the teacher will pair up students so they can compare and contrast notes.
4. Different students will be asked to comment on different slides and to read the notes they have taken.
5. Our visitor will talk about her/his job and answer questions students may have.
6. Then, students will be asked -in order- to start formulating the questions they have ready for the "interview" (they already know the order, who is reading whaich questions and all the details). One of the students has already been assigned to record all the answers, so we can put the whole interview together and then "edit" it and send it to our speaker (if interested!).

Closure

Students will be given a flashcard and they will write down the name of their favorite bridge (of all the ones he have looked up to this point) and why is so.

Assessment / homework

The teacher will give students both the handout on Calatrava and the rubric for the "Jeopardy" game. Students will have to complete the handout and write at least 5 good questions for the game following the rubric.

Endnotes

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1. ACTFL (American Council on the Teaching of Foreign Languages.) Standards

for Foreign Language Learning. http://www.actfl.org/files/public/StandardsforFLLexecsumm_rev.pdf

2. Martin Gehner, "*Bridges: The Art and Science for Creating Community Connections*" (description of the Bridges seminar for the Yale National Initiative, New Haven, CT, January 10, 2008)

3. ACTFL (American Council on the Teaching of Foreign Languages)

http://www.actfl.org/i4a/pages/index.cfm?pageid=1

4. ACTFL´s Performance Descriptions. http://www.actfl.org/i4a/pages/index.cfm?pageid=3329

5. Ministerio de la Presidencia. Boletín Oficial del Estado. Estatutos de Autonomía. http://www.boe.es/g/es/iberlex/normativa/estatutos_autonomia.php (accessed July

26, 2008)

6. Alcántara means "the bridge" in Arabic.

7. *Opus caementicium* was the core of every Roman wall after the 2nd century BCE. Mostly walls made in opus caementicium were covered with other materials to make a more robust and workable surface. It was a construction technique using an aggregate, water and a binding agent. The aggregate functioned as a filler like gravel, chunks of bricks or stones and rubble. The binding agent is usually called mortar like lime, gypsum or pozzolana (nowadays (Portland) cement is used). http://www.romanaqueducts.info/aquasite/hulp/tekopusbreed.htm (accessed August 6, 2008)

8. I am of the idea that if the structure is not Roman, the bridge is not either, that is why I am inserting it in this section.

9. Leonardo Fernandez Troyano, "Variantes morfológicas de los puentes medievales españoles," Revista de Obras Públicas 3 (2005): 11.

10. Ronda: Puente Nuevo. http://www.turismoderonda.es/catalogo/esp/puentenuevo.htm (accessed July 27, 2008)

11. Centro de Interpretación del Puente Nuevo.

http://www.turismoderonda.es/museos/esp/puente.htm (accessed July 27, 2008)

12. Santiago Calatrava´s website: http://www.calatrava.com (accessed June 10, 2008)

13. Alexander Tzonis, *Santiago Calatrava: The Complete Works- Expanded Edition* (New York: Rizzoli, 2007)

14. http://en.wikipedia.org/wiki/Asterix

15. Rene De Goscinny and Albert Urdezo, *Asterix en Hispania* (Hachette, 1999)

16. Astérix: Sitio Oficial. http://es.asterix.com/ (accessed July 15, 2008)

17. A Cloze text is and exercise, test, or assessment consisting of a portion of text with certain words removed, where the student is asked to replace the missing words. Cloze tests require the ability to understand context and vocabulary in order to identify the correct words or type of words that belong in the deleted passages of a text. This exercise is commonly administered for the assessment of native and second language learning and instruction.

18. Ciudad de las Artes y las Ciencias. http://www.cac.es/home/?languageId=4

Bibliography

-Aramburu-Zabala Higuera, Miguel Â¡ngel. *Arquitectura de puentes en Castilla y León 1575-1650*. Junta de Castilla y León: Consejería de Cultura y Turismo. Valladolid: Junta de Castilla y León, 1992.

Approach to the construction of bridges, architects, masons, materials, etc, in the Middle Ages. The author catalogues mediaeval bridges throughout the provinces in Castile-Leon.

-Bonilla Hernández, José Antonio and Rodríguez Martín, Evaristo (cord.). *Puentes singulares de la provincia de Salamanca*. Salamanca: Diputación de Salamanca, 2005.

Detailed record of the bridges in the province of Salamanca (Castile-Leon).

-Camacho, Rosario and Miró, Aurora. "Antecedentes del Puente Nuevo de Ronda." Boletín de la Real Academia de Bellas Artes de San Fernando 79 (segundo semestre, 1994): 288-314.

Comprehensive documentation on the proposals for the reconstruction of the New Bridge in Ronda, information about the architects, illustrations, etc.

-Cantarino, Vicente. *Civilización y Cultura de España*. Prentice Hall, 2006.

Basic political, economic, social, cultural and religious information of the Spanish history.

-Fanfani, Alberto. *Santiago Calatrava: Los Puentes*. Random House Mondadori, 2005.

Description and pictures of various works of the Spanish architect.

-Fernandez Troyano, Leonardo. "Variantes morfológicas de los puentes medievales españoles." Revista de Obras Públicas 3 (2005): 11-34.

Detailed overview of the Spanish Mediaeval bridges. The author describes and compares Romanesque and Gothic bridges.

-G"ssel, Peter (Ed.) and Jodidio, Philip. *Calatrava*. Taschen, 2007.

-Jodidio, Philip. *Santiago Calatrava: Complete Works 1979-2007*. Taschen, 2007.

Monographic volume that explores Santiago Calatrava´s career.

-Jodidio, Philip. *Santiago Calatrava*. K"ln: Taschen, 2003.

Scrupulous review of the architect's projects. Includes many great pictures and some of Calatrava´s drawings.

-Melida, José Ramón. *Monumentos romanos de España: noticia descriptiva*. Madrid: V. Rico, 1925.

General account of the most famous Spanish Roman monuments.

-O´Connor, Colin. *Roman Bridges*. Cambridge: Cambridge University Press, 1993.

The author lists, describes and examines many Roman bridges, in many cases illustrating them with pictures.

-Taracena, Blas. *Ars Hispaniae: Historia universal del arte hispánico.* Madrid: Plus-Ultra, 1947-.

Complete study of the history of the Spanish art including architecture, sculpture, mosaics and paintings in all the artistic styles.

-Tzonis, Alexander. *The Poetics of Movement*. New York: Universe, 1999.

Description of Santiago Calatrava´s projects carefully documented with drawings, sketches and pictures.

-Tzonis, Alexander and Caso Donadei, R. *Santiago Calatrava: Los Puentes*. Random House Mondadori, 2007.

Overview of Calatrava as a bridge designer, analyzing the architect's contribution to the field. Study of over thirty of his bridges with illustrations, pictures and sketches.

-Tzonis, Alexander. *Santiago Calatrava: The Complete Works- Expanded Edition.* New York: Rizzoli, 2007.

This edition offers and updated account of Calatrava´s pieces of work, including drawings, sculptures and furniture designs.

Resources

-Arte Mudéjar. YouTube (video). http://technorati.com/videos/youtube.com%2Fwatch%3Fv%3DxLuE7w1Zszo

Video on the Mudéjar style: its history, main features, main monuments, etc.

-Astérix: Sitio Oficial. http://es.asterix.com/

Official website of the French comic. Includes different interactive games and activities.

-Casselman Archive of Islamic and Mudéjar Architecture in Spain.

http://digicoll.library.wisc.edu/Arts/subcollections/CasselmanImageAbout.html

Gallery of 1209 photographs on the Mudéjar style.

-Context for World Heritage Bridges. http://www.icomos.org/studies/bridges.htm#19

Exhaustive analysis on bridges.

-Die Reisen Des Santiago Calatrava (Switzerland, Christoph Schaub, 2002) Documentary (in German).

-EPDLP (El Poder de la Palabra): Santiago Calatrava. http://www.epdlp.com/arquitecto.php?id=29

Gallery of pictures of some Calatrava´s works.

-GothicMed: a Virtual Museum of Mediterranean Gothic Architecture.

http://www.gothicmed.com/gothicmed/GothicMed.html

Virtual museum of Mediterranean Gothic architecture.

-Historia de la Arquitectura en España. http://www.spanisharts.com/arquitectura/inicio.html

Comprehensive history of the Spanish architecture.

-Mapas flash interactivos. http://www.xtec.net/~ealonso/flash/mapasflash.htm

Interactive website to "play" with maps.

-Mudéjar Art in Spain and Portugal in the Museum of no Frontiers website.

http://www.discoverislamicart.org/exhibitions/ISL/mudejar_art/?lng=en

Detailed and descriptive guide of the Mudéjar style (in English).

-Ronda: Centro de Interpretación del Puente Nuevo.

http://www.turismoderonda.es/museos/esp/puente.htm (accessed July 27, 2008)

Spectacular short video on the Puente Nuevo, with amazing images. (In Spanish with

English subtitles)

-Santiago Calatrava. http://www.calatrava.com

Caltrava´s official website. Includes projects, awards, samples of his artwork and 3 multimedia short videos.

-Segovia: su acueducto y... http://www.tarraconensis.com/segovia/segoviacueducto.html

Pictures and information on the Aqueduct of Segovia.

Appendices

Appendix 1: Calatrava´s Bridges in Spain

-Puente de Caballeros (Lérida, 1985)

-Puente de Bach de Roda (Barcelona, 1985-87)

-Puente de la Gran Vía (Barcelona, 1989)

-Puente Serpis (Alcoy, 1992)

-Puente Miraflores (Córdoba, 1989)

-Puente del Alamillo (Sevilla 1987-91)

-Puente de la Serrería (Valencia, 1992)

-Puente de Lusitania (Mérida, 1988-91)

-Puente la Devesa (Ripoll, 1989-91)

-Puente del Puerto (Ondarroa, 1989-91)

-Puente 9 de Octubre (Valencia, 1991-95)

-Puente Campo Volatín (Bilbao, 1990-1997)

-Puente Alameda (Valencia, 1991-95)

-Puente Hospital (Murcia, 1993-1999)

-Puente Manrique (Murcia, 1994-1999)

Appendix 2: Comunidades autónomas

The following are the web pages for all the *comunidades autonomas´* tourism

-Andalucía: http://www.andalucia.org/

-Aragón:http://www.turismoaragon.com/web/home.asp

-Asturias: http://www.infoasturias.com

-Cantabria: http://turismo.cantabria.org/

-Castilla-La Mancha: http://www.castillalamancha.es/turismo/

-Castilla-León: http://www.turismocastillayleon.com/

-Cataluña: http://www.gencat.net/ctc/turisme/

-Ceuta: http://www.turiceuta.com/

-La Rioja: http://www.lariojaturismo.com/

-Madrid: http://www.madrid.org/turismo

-Navarra: http://www.navarra.es/home_es/Turismo

-Melilla: http://www.melillaturismo.com/

-Murcia: http://murcia-turismo.com

-Valencia: http://valencia.comunitatvalenciana.com/

-País Vasco: http://www.paisvascoturismo.net/

-Extremadura: http://www.turismoextremadura.com/

-Galicia: http://turgalicia.es

-Islas Baleares: http://www.illesbalears.es/

-Islas Canarias: http://www.canarias.org/esp/turismo/turismo.html