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Northern Italy and Venice in World History Perspective

During the past year, my wife and I took a trip through Northern Italy and Venice. The journey started in Milano, went north to Bellano and Tirano and then came south to Verona. The second leg of the excursion went north again through Trento and the Sud-Tyrol, which was Austrian territory until 1919 CE. The tour ended with a five day stay in Venice. As interesting as this tour proved in terms of gaining insight into Italian history, its value to me as a world historian was in increasing my knowledge about northern Italy's place in world history I saw this ever where, from a museum in Milano focused on Roman Milano, through a medieval pilgrimage site in Tirano, to a Fascist-dedicated water tower in the Lake Isola region. What struck me most were the many cross-regional connections that directly influenced the region's people during Post-Classic and Early Modern World History. Yet, northern Italy has always taken second place to the South multicultural south on that score, in terms of both research and teaching about world history.

This study seeks to demonstrate the influence of these trans-regional linkages on northern Italy and Venice. Specific, teachable examples, with supporting classroom exercises, will provided. These are classified into six categories: long distance trade, technological diffusion, architectural diffusion, cultural diffusion, disease diffusion and flora diffusion. Even though these six groups will be treated separately in this work, in many cases their effects can be easily developed in an interrelated manner.

Long-Distance-Trade

From the 12th to the 15th century CE, the city state of Venice was the number one entrepot of long-distance trade in Western Europe. Its location at the northern end of the Adriatic Sea, which gives relatively easy access to seaborne routes to the Middle East and North Africa, was a huge factor in its commercial success. The Adriatic Sea lead directly into the Grand Canal of the city, which was the place where the grandest merchant houses were built. These three-story structures were places of business and family residences at the

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same time. The ground floors of these buildings were storehouses and the second and third floors served as living quarters. (Please see Image 1 in Appendix.)

The Rialto Spice Market was the center of Venetian long-distance trade. Located right on the Grand Canal, it was the place where Central Asian, Middle Eastern and North African goods were bought and sold. Luxury non-European goods dominated this exchange with silks, perfumes, cinnamon, ginger and especially black pepper occupying places of priority[1]. Goods traded for these non-Western items included timber, furs and honey all of which had been transferred to Venice by Hanse merchants from the Baltic Sea Region. (Please see Image 2 in Appendix.)

The Catholic Church's rule that Friday had to be meatless greatly contributed to the long-distance links of Post-Classic Venice. Cod are indigenous to the Grand Banks off the coast of Newfoundland and the French explorer Jacques Cartier in 1533 CE witnessed seeing circa a thousand Basque fishing vessels in the region harvesting the fish. The cod were salted, which preserved them until placed into fresh water. This product of the Northwest Atlantic Ocean was introduced to Italy in 1443 CE by Catalans.[2] (Please see Image 3 in Appendix.)

Technological Diffusion

There are a few noteworthy examples of Byzantine technological ideas in Northern Italy. The roof of the Duomo in Milano, where construction began in 1386 CE, is supported by many flying buttresses. The conventional belief is that these impressive architectural elements have their origin in Western European 12th century CE Gothic design but in reality, their beginnings were in the 4th century CE Eastern Roman Empire. An excellent exemplar can be found at the Rotunda of Galerius in Thessaloniki, Greece which was constructed in 306 CE. One of its roof sections is supported by two massive exterior buttresses. (Please see Image 4 in the Appendix.)

The Chiesa di Santa Marta in Bellano, Italy, which was constructed in 1455 CE, features a beautiful dome situated over a square floor space. This design predates the Chiesa di Santa Marta by nine hundred years and its origin was in the 6th century CE Byzantine Empire. A round dome over a square floor space was initially developed in the great Byzantine Church of Hagia Sophia, which dates to 537 CE and is located in Constantinople/ Istanbul, Turkey. In addition to the round dome over a square space, the Byzantine architects developed the architectural element of the pendentive. Four of these triangular pieces of stone served to take the weight of the dome to the floor by way of four columns located in the corners of the square floor space. The dome of Santa Marta is held up by four beautiful examples of pendentives. (Please see Image 5 in Appendix.)

A few buildings in Monte Isola, which is on an island in Lake Iseo in Northern Italy, exhibit outdoor painted sculptures in the tradition of Luca della Robbia from 15th century

CE Florence, Italy. To the casual viewer, these statues seem to be a twenty-first continuation of a Renaissance art form, but this is not the case. The painted colors on the exterior sculptures are protected by a tin glaze process initially developed in 9th century CE Abbasid Dynasty Baghdad, Iraq. Muslim chemists cultivated this ceramic invention in an attempt to approximate the quality of Chinese blue and white porcelain. They failed in this attempt, but the process was transferred by Muslim artisans from the Middle East across North Africa and into Islamic Spain. From Andalusia, the tin glazed method diffused into Italy and became a standard process for the della Robbia business. (Please see Image 6 in the Appendix.)

A second exemplar of this Medieval Muslim craft can be found in the village of Bolzano, Italy. A museum there has a room warmer on display that dates from c. 1770 CE. The outer covering of this apparatus is tin glazed ceramic, which is colored blue and white. The geometric color scheme is much closer to its Islamic prototype from the 9th century CE Abbasid Dynasty in Iraq than the della Robbia referenced above. The originators of this chemical process were trying to copy Chinese Tang Dynasty porcelain, which favored a blue and white pattern. (Please see Image 7 in the Appendix.)

The Sforza Castle located in Milan is a fine model of polycentrism. It was initially constructed as the base of the Visconti Lords in c. 1368 CE. The design of the fortress with straight walls was effective for the 14th century CE but new weaponry required architectural innovations by c. 1500 CE. In the early 16th century CE, Milan was controlled by the Sforza Family, who hired Leonardo da Vinci to remodel the castle in light of the influence of cannons in Italian Renaissance warfare. The cannon was invented in Italy during the 15th century CE but its antecedents stretched across the Middle East, Central Asia to Medieval East Asia. Gunpowder and early firearms both date to Song Dynasty China 960–1279 CE. However, it was the Mongols, who carried this technology across Central Asia to the Middle East in the 13th and 14th centuries CE. From Southwest Asia, Muslims took the technology into Western Europe by way of North Africa and Islamic Spain. Following the use of early firearms in the Spanish Reconquista and the Hundred Years War, a recognizable cannon appeared in 15th century CE Italy. As a consequence, the straight walls of the Visconti fortress became obsolete and were replaced by the star fort design which was also a technological innovation of Renaissance Italy. This innovative plan featured triangular bastions built at intervals along the castle walls with earthen ravelins constructed in front to absorb cannon balls before they hit the walls. (Please Image 8 in the Appendix.)

Architectural Diffusion

Northern Italy has many beautiful exemplars of architecture that has been directly influenced by Islamic design. The ogee arch, which has an exaggerated pointed style at its apex, has its origin in Medieval Persia.[3] Trade contacts with Venice brought this style of arch into

Western Europe. The Chiesa di San Martino in Tirano, Italy exhibits an excellent example. (Please see Image 9 in Appendix.)

There are many attractive examples of the mixtilinear (intermixed triangles and circles) arch in Northern Italy. This architectural element features a Roman arch but instead of being uniform in shape it displays many angles inside the arch. Its origin was in 11th century CE Moorish Spain and from there it spread to Muslim North Africa. Architectural historians[4] believe that it came into Venice as a result of Venetian trade connections with the Levant and was used to decorate San Marco Basilica by 1175 CE. (Please see Image 10 in Appendix.)

The simple pointed arch can be seen throughout Northern Italy, It was first used in the construction of the al-Aqsa Mosque in Jerusalem in 780 CE. From this initial usage, the design diffused along with Muslim imperialism to the city of Cairo, Egypt where it was employed in the building of one of the first mosques in this urban area. This Mosque of Ibn Tulun was completed in 884 CE and from there, the architectural element was taken to the Muslim Emirate of Sicily and was used in the construction of the Catholic Abbey of Monte Cassino near Rome in 1071 CE. (Please see Image 11 in Appendix.)

One of the more beautiful aspects of Islamic architectural influence in northern Italy is a series of interlaced geometric shapes known as strapwork. It has its origin in Roman Syria c. 150 CE and was adopted by Muslims as they conquered much of the Byzantine Middle East in the mid-7th century CE. This aesthetic feature, which was known to Renaissance architects as Moresque Style, first arrived in Venice during the 15th century CE. Sicily was probably the conduit for strapwork into Venice in that the Palatine Chapel in Palermo c. 1143 CE featured this aesthetic element.[5] The Monasterio San Maurizio in Milano c. 1518 CE exhibits a fine example of this design. (Please see Image 12 in Appendix.)

Screened balconies from the Medieval Muslim world have a very interesting relationship to Venice. Their purpose in Cairo, Egypt for example was multiple. They allowed fresh air into a house, extended the room over the street and allowed Muslim women to view outside activities without being seen. According to Deborah Howard, who is an expert on Venetian buildings, merchants from the city to the Levant brought back the shape of the enclosed balcony—or mashrabiya in Arabic—to Venice without the screened privacy.[6] As one travels through Northern Italy, many enclosed balconies are in evidence that closely resemble the Muslim mashrabiya in height, length and width. (Please see Image 13 in Appendix.)

Cultural Diffusion

There are many examples of gardens in Northern Italy that are enclosed and separated into four green quarters by horizontal and vertical paths. This design has been a staple of Western European garden arrangement for over one thousand years, but its origin is in Central Asia. The charbagh or paradise garden was developed in Ancient Persia in c. 500 BCE.

Following Muslim conquest of Persia, which occurred in the 7th century CE, the garden plan was diffused to North Africa, Sicily and southern Spain by c. 1050 CE by the conquerors.[7] One of the finest examples of this garden aesthetic is to be found in Verona and the Giardino Giusti, which was constructed in c. 1580 CE. (Please see Image 14 in Appendix.)

The Palazzo Marinoni in Tirano, Italy, is a very interesting symbol of an important world History story. This structure that was built in 1654 CE is a classic interpretation of Italian Renaissance urban planning. Its open geometric space, surrounded by a church, government offices and merchant stores, is right out of Leon Battista Alberti's architectural sketchbooks from 1452 CE.[8] So far in this narrative, the palazzo is just an Italian story, but it represents a movement of urban planning from Renaissance Pienza in Tuscany to New Spain in the early 16th century CE. The designs of Alberti and other Renaissance urban planners were directly applied by the Spanish in the construction of brand new early 16th century cities in Mexico such as Puebla and Oaxaca. Both cities were built around a central plaza enclosed by a church, city hall and merchant shops, which directly reflected Italian Renaissance architectural notions. In addition, the success of this urban plan in New Spain lead to the creation of plaza mayors in traditional Spanish cities such as Vallodolid. It was here that King Philip the Second created the first symmetrical plaza in Spain during 1561 CE. Regarding the Palazzo Marinino in Tirano, it stands as a 17th century CE example of the diffusion of Renaissance urban planning from Tuscany to Mexico to Spain and finally to Lombardy. (Please see Image 15 in Appendix.)

On a townhouse in Bressanone, Italy, there is an image of the Catholic Virgin encased in flames. This image has its origin in the Christian Book of Revelations, which dates to c. 95 CE and was composed in the Greek speaking area of the Aegean Sea.[9] The same depiction is the basis of the Virgin of Guadalupe image that dates to 1531 CE in Mexico and today is the central religious and cultural icon of the country. The European narrative of this image was supported by the "Greek Fathers" of Christianity in c. 580 CE and it was a popular depiction of the Virgin Mary in Medieval Western Europe. With this background, it becomes obvious that the image in Bressanone has a world history pedigree of at least three global regions. (Please see Image 16 in Appendix.)

Disease Diffusion

As one passes through Teglio in Lombardy, the Chiesa di San Rocco stands out in the landscape. The worship of San Rocco began as a Northern Italian cult and it was officially sanctioned by the Pope, who made San Rocco a saint in c. 1550 CE during the Counter Reformation. The saint became a symbol of relief from the Black Death pandemic of the 14th century CE. This disease hit Sicily in 1347 CE and was already in Venice a year later. It caused over 100,000 deaths in Venice that year alone. Italy lost one third of its total population to the plague and the 14th century CE Eurasian deaths totaled 175 to 200 million

victims.[10] The relationship of San Rocco Chiesa in Teglio and world history is that the disease was not originally a European phenomenon. Its place of origin was in Central Asia. From this starting point it traveled along trade routes east to China and west through the Middle East, North Africa and Eastern Europe to Italy. In order to affect the people of Teglio, the Black Death had to cross a total of five global regions—a true cross-regional development. (Please see Image 17 in the Appendix.)

Flora Diffusion

In addition to the Chiesa di San Rocco, the small village of Teglio exhibits a second specific exemplar of global contacts. Whereas the San Rocco world history connection relates to disease, a garden along the hillside in Teglio manifests flora that is historically tied to seven of the ten global regions on the planet. This unassuming set of plantings contains buckwheat, potatoes and maize. The buckwheat, which has its origin in Yunnan, China, moved west along trade routes through Central Asia, Middle East, Eastern Europe and entered Western Europe by 1350 CE.[11] The maize had to come to Teglio after Cortez's conquest of the Aztecs in 1521 CE and the diffusion of the potatoes had to follow Pizarro's defeat of the Peruvian Inca in 1533 CE. (Please see Images 18 and 19 in Appendix.)

On a side street in Venice there is a sandwich shop that features a dessert called Cannoli Siciliano. For many people in the United States, cannoli is considered a traditional Italian delicacy but this is not totally accurate. The delicious ricotta cheese comes from Italian sheep and the tubular shape may be Ancient Roman in design. However, the sugar in the confection was bought into Sicily by Muslims during the period of the Sicilian Emirate c. 831–1091 CE. In addition, the complementary honey and almonds of the dessert were also introduced to Sicily from North Africa by Muslims in the 9th century CE.[12] (Please see Image 20 in Appendix.)

In many restaurants in Northern Italy and Venice, one can find polenta on the menu. It is true that this dish is a staple of Italian cuisine, but it has a very interesting world history provenance. The earliest records of polenta can be found in Ancient Iraq c. 3000 BCE where its grain base was millet and rye. A spelt based polenta kept the Roman legions marching in c. 100 CE. The contemporary maize dish only became possible after the Spanish conquest of the Aztecs in c. 1521 CE because Mesoamerica is corn's place of first cultivation. (Please see top of Image 3 in Appendix.)

Teaching/Learning Activities

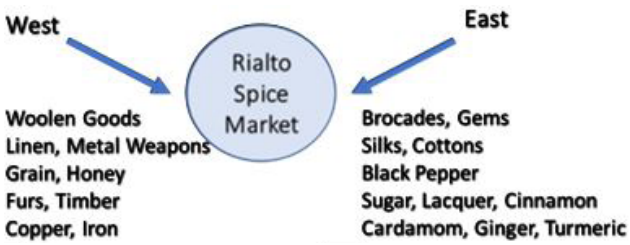
A study such as this raises a very practical and important question. How does this information make the move from a professional journal to the general public? One definite means of accomplishing this worthwhile goal, which the rest of the composition will focus on, is to employ some of the examples in this study in the development of effective teaching/

learning activities. The following methodologies with certain modifications could be used in classrooms from the secondary to the graduate school level. Each one will employ some of the paper's content to develop a specific, sophisticated world history cognitive skill. It is these thinking skills that our students will carry with them when all knowledge of ogee arches will be forgotten.

Learning Activity 1—Theme/Example

Steps:

1. Students look at Image 2 in the appendix, which depicts the Post Classic/Medieval Rialto Market in Venice.
2. Teacher passes on this data to students—Rialto Spice Market functioned from 1097 CE on and it was the endpoint for all Venetian voyages from the Black Sea and Levant regions. This presentation should be visually supported by an interactive map of Post/Classic long-distance trade routes.[13]
3. Educator then gives students this diagram containing information about commodities traded at the Rialto Spice Market.



4 Class should be broken up into six smaller groups, which should be numbered 1–6.
5. Groups 1–4 should be assigned to trade goods from the East on the above diagram and groups 5–6 should be assigned to commodities from the West.
6. Groups 1–4 should be assigned a region of the world to focus on as follows: 1—China, 2—India, 3—Southeast Asia, 4—Middle East and groups 5–6 should be assigned as follows: 5—Nuremberg, Germany, 6—Hanseatic League
7. Each group should be given the same set of tasks:
    a. Identify which commodities that were traded at the Rialto Spice Market came from your assigned region
    b. Identify the method of transportation of your trade goods to Venice e.g. by land or sea
    c. Prepare an oral presentation to the class as a whole to address tasks a and b in which all group members speak
    d. Prepare a written historical argument with claim and specific, relevant and accurate supportive evidence on this question: To what extent was the Rialto Spice Market a locus of polycentric long-distance-trade?

e. Written argument must have a bibliography from ".edu" sources and/or recognized world history books
f. Groups must self-assess the written arguments by rubric supplied by teacher and if necessary revise the essay
g. In summary, the educator should emphasize the importance of the themes of long-distance-trade and polycentrism in the data about the Rialto Spice Market

Learning Activity 2—Evaluating the Credibility of an Historical Claim

Steps:

1. Students copy this historical claim into their notebooks: Physical geography played a large part in Venetian economic success from c. 1100 CE to 1450 CE.
2. Entire class should be broken down into 10–12 sets of pairs depending on the total number of people in the class.
3. Educator puts map up on screen from internet about Medieval Trade Routes[14]- This map is the base of the learning activity, but pairs of students are not limited to it for evidence.
4. The task for all pairs of students is to write an historical argument evaluating the credibility of the claim stated in Step 1.
5. Teacher gives students these aspects of physical geography to consider: seas as connectors, mountain passes, access to seas, flat land, access to land trade routes.
6. Pairs of students are given time outside of class for research and in-class time for argument planning.
7. Students use the following educator developed rubric as a guide for writing their argument:
    a. Specific claim that addresses task—10%
    b. Specific evidence from map—60%
    c. Specific evidence from cited sources—20%
    d. Conclusion with examples of world history themes in essay—10%
8. Upon receiving their grade for the argument, students revise their work using the rubric as a guide.

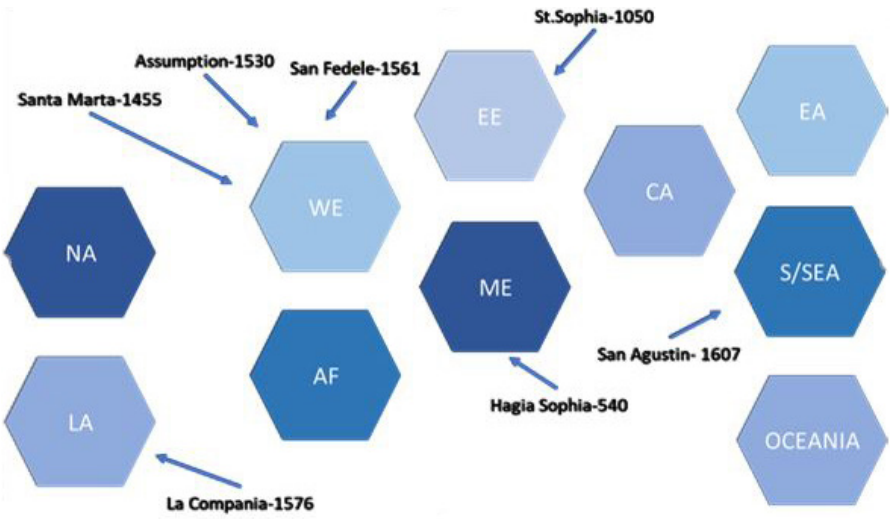
Learning Activity 3—Tracing Cultural Diffusion in Northern Italian and World History

Steps:

1. Teacher divides class into seven smaller groups.
2. Educator shows students Image of Chiesa di Santa Marta, Bellano, Italy which can be found in appendix Image number 5. As students are considering the architecture of the place of worship, teacher identifies the architectural elements of a dome over a square and pendentives in the composition.

3. Each group is assigned one church to research and their points of focus are: time of construction, location, dome over square and pendentives of the particular place of worship.
4. Group Assignments:
    a. Hagia Sophia—Constantinople, Turkey
    b. St. Sophia—Kiev, Ukraine
    c. Chiesa di Santa Marta—Bellano, Italy
    d. Cathedral of the Assumption of Mary—Cordoba, Spain
    e. Chiesa San Fedele—Milan, Italy
    f. Templo La Compania—Oaxaca, Mexico
    g. San Agustin Church—Manila, Philippines

    N.B.—All of the above buildings can be seen on Google Images
5. Tasks for each group:
    a. Research the history of the church focusing on time and place of construction
    b. Access images of the church's interior on Google Images
    c. Find and copy an image of the dome over a square and pendentives in the church
6. Each group presents the date of construction, location and its image of the church interior with dome over square and pendentives. The seven presentations should be in correct chronological order, which should be worked out by the students.
7. Following the group presentations, the class as a whole with the teacher's guidance should place their research findings on the following global map.
8. The completed global map should look as follows:



Map Code: NA–North America, WE–Western Europe, EE–Eastern Europe, EA–East Asia, LA–Latin America, AF–Africa, CA–Central Asia, ME–Middle East, S/SEA–South/Southeast Asia, Oceania–Self Explanatory

9. Teacher should stress that the evidence on the global map above is an exemplar of the world history theme of cultural diffusion.
10. Educator should assign each of the seven groups a world history event from this list:

    Group 1—Emperor Justinian's Reign
    Group 2—Beginning of Russian Christianity
    Group 3—Edict of Thessalonica
    Group 4—Spanish Reconquista
    Group 5—Counter Reformation
    Group 6—Spanish New Spain
    Group 7—Voyage of Magellan

11. Group Tasks:
    a. Research the relationship between the assigned event and the assigned church.
    b. Present a historical argument to the entire class on the connection between the world history event and the place of worship.

Learning Activity 4—Tracing the Influence of Cross-Regional Connections over Time

Steps:

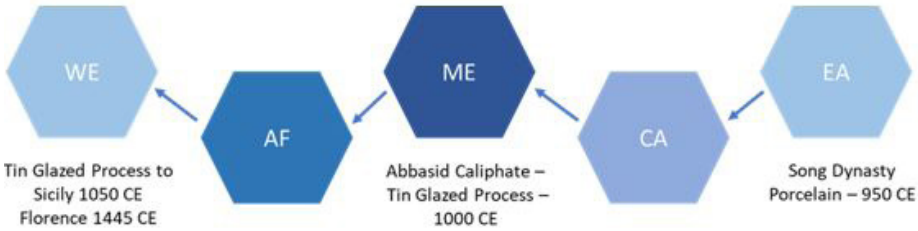
1. Teacher shows students a Image of an outdoor tin glazed ceramic from Monte Isola, Italy. This image can be seen in Appendix—Image number 6.
2. Entire class should be split up into five smaller work groups.
3. Educator should assign each group to a certain historical development as follows:

    Group 1—Song Dynasty Chinese blue and white porcelain
    Group 2—Abbasid Dynasty, Iraq blue and white ceramic
    Group 3—Spread of Islam from c. 700 CE to 1000 CE
    Group 4—Emirate of Sicily, Italy
    Group 5—Della Robbia ceramic in Florence, Italy

4. For homework, groups 1, 2 and 5 find an image of their assigned ceramic on google images and copy it for classroom presentation—group 3 is to find a good map of the diffusion of Islam from 700 CE to 1000 CE and copy it for classroom presentation—group 4 is to research the influence of the Emirate of Sicily on the diffusion of Islamic arts into Western Europe and bring the evidence to class. Group 5 is to research the influence of ceramics from the Emirate of Sicily on the work of the della Robbia family in Florence, Italy.
5. In next class, group members present their research results to the entire class—Educator then gives all groups the same task for homework: Do you see any influence of your assigned ceramic and the ceramic from Monte Isola, Italy?
6. In next class, students meet in groups to continue discussing the question from step 5 above—As groups are working, the teacher circulates and assists students in

seeing the specific cross-regional connection that relates to their assigned ceramic and the work of art in Monte Isola

7. For homework, group members prepare a short presentation to the entire class on the relationship of their assigned ceramic to the Monte Isola work of art
8. In next class, teacher should place an abstract map of the world on the white board, which will be filled in as groups present to the class in chronological order as follows: Song Dynasty ceramic, Abbasid Caliphate ceramic, Spread of Islam—700 CE–1000 CE, Emirate of Sicily and della Robbia ceramic from Florence, Italy—1445 CE
9. Filled in map code: WE–Western Europe, AF–Africa, ME–Middle East, CA–Central Asia, EA–East Asia



An educator should emphasize the examples of these important world history themes: polycentrism—Five global regions connected in narrative, technological diffusion—Muslim tin glazed process to North Africa and Western Europe

Learning Activity 5—Compare/Contrast Thinking

Steps:

1. Teacher should break the entire class into seven groups
2. Each group should be assigned a topic relative to the Sforza Castle in Milan, Italy as follows:

   Group 1—families in control of castle in 1368 CE and 1550 CE
   Group 2—shape of castle walls in 1368 CE and 1550 C
   Group 3—use of bastions in 1368 CE and 1550 CE
   Group 4—use of ravelins in 1368 C and 1550 CE
   Group 5—availability of cannons in 1368 CE and 1550 CE
   Group 6—history of cannon development until 1550 CE
   Group 7—write a historical argument to be distributed to all students on this question: Was the cannon a turning point in castle design?
3. Groups 1–6 have a week for research and all of their documented research should be given to group 7—group 7 while waiting for the researched evidence should create a rubric for the historical argument
4. In next class, all 7 groups meet in class to evaluate and perhaps modify the rubric developed by group 7

5. In next class, educator should provide this visual organizer to all students: NB—Use of graphic organizer—if data about the castle for both dates is similar, it should be placed in the middle of the three columns. However, if the data is different, it should be placed in the column underneath the relative castle date.

	Sforza Castle- 1368 CE		Sforza Castle- 1550 CE
Family in Control			
Wall Design			
Use of Bastions			
Use of Ravelins			
Cannons Available			

6. Once the visual organizer is copied by all students, groups 1 through 6 articulate their research evidence with teacher adding expertise
7. With educator assistance, all students fill in the research data on the visual organizer, which should look like this upon completion:

	Sforza Castle- 1368 CE		Sforza Castle- 1550 CE
Family in Control	Visconti		Spanish Habsburgs
Wall Design	200-meter square		irregular wall shape
Use of Bastions	No		12
Use of Ravelins	No		3
Cannons Available	No		yes- 1494 CE on

8. Using the data on the compare/contrast chart above, educator should hold a class discussion on comparing and contrasting the shape of Sforza Castle from 1368 CE to 1550 CE
9. Using Image number 8 in appendix, the teacher should emphasize the influence of the development of cannon technology on castle design: bastions, ravelins and wall shape. Educator should then raise this question for students: Was the development of cannon technology a turning point in world history?
10. For next class, members of group 7 write their historical argument for this topic: Was the development of the cannon a turning point in world history?
11. In next class, group 7 members distribute their historical argument to the entire class, who assess it for homework using the rubric designed by group 7 in step three above
12. In next class, educator should lead a full class discussion on the good points of the historical argument and any possible improvements

Learning Activity 6—Ogee Arches: Relationships over Time and Place in World History

Steps:

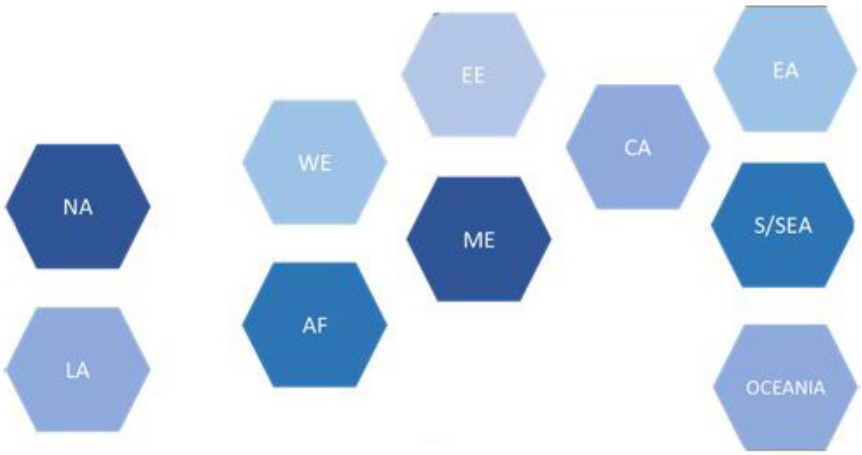
1. Students consider the image of an ogee arch in Image number 9 in appendix
2. Teacher gives a short lecture on the origin of the ogee arch from its origin in Central Asia—c. 529 BCE to its introduction to Italy through Venetian long-distance-trade with the Middle East in Medieval/Post Classic History
3. Entire class should be split up into nine smaller groups
4. Each group should be assigned a building to research as follows:

   Group 1—Mezquita—Cordoba, Spain—987 CE[15]
   Group 2—Masjid al-Ashab—Quanzhou, China—1009 CE[16]
   Group 3—San Marco Basilica—Venice, Italy—1085 CE[17]
   Group 4—Church of St. Andrew—Westhall—Halesworth-Suffolk, England—1350 CE[18]
   Group 5—Cathedral of the Holy Cross—Barcelona, Spain—1420 CE[19]
   Group 6—Bada Gumbad—New Delhi, India—1490 CE[20]
   Group 7—Monastery of San Juan de los Reyes—Toledo, Spain—1505 CE[21]
   Group 8—Jesuit Church—Oaxaca, Mexico—1760 CE[22]
   Group 9—Hidayet Cami—Istanbul, Turkey—1887 CE[23]

   N.B.—all of these buildings can be viewed on Google Images and each one has a responding website for background information in the endnotes

5. Tasks for each group:
   a. research the date and location of your assigned building's construction
   b. locate an image of an ogee arch from your assigned structure, place it on a flash drive and bring to class
   c. meet in class with all nine groups and place the images of the ogee arches on a flash drive in correct chronological order
   d. meet in class and online to research and discuss with educator's assistance the world history developments that brought the ogee arch to your assigned building.

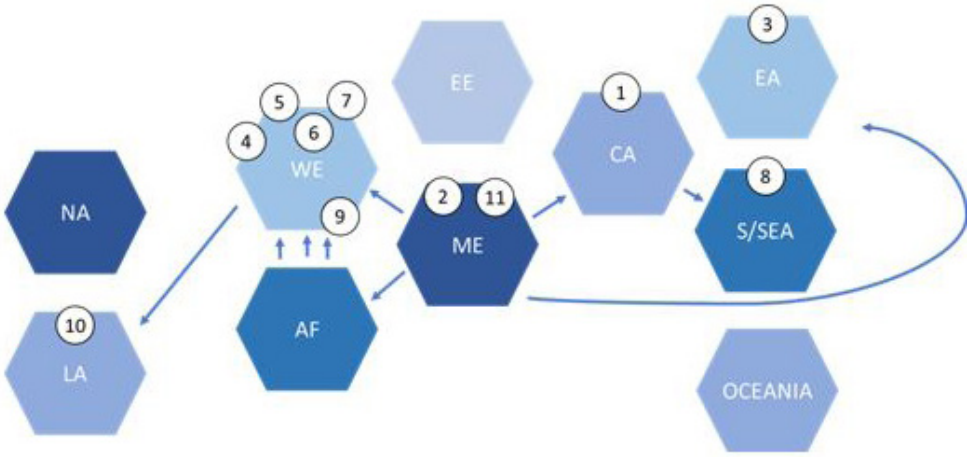
e. Chart the world history connections of the ogee arch and your building on this abstract map of the world:



Map Code: NA–North America, WE–Western Europe, EE–Eastern Europe, EA–East Asia, Oceania, LA–Latin America, AF–Africa, ME–Middle East, CA–Central Asia, S/SEA–South/Southeast Asia

6. Educator gives groups some time in subsequent classes and expects work to be done outside of class on the tasks in number 5 above
7. All groups, on a non-pre-arranged schedule, present their research findings on a one group per day basis. After each group's presentation, teacher places the movement of the ogee arch from Central Asia to areas of each group's focus

8. Upon completion of the group presentations, the completed global map would look as follows:



Map Number Code:
1. Origin of ogee arch in Central Asia c. 400 BCE
2. Muslim conquest of Persia in 651 CE leading to transfer of the ogee arch into the Post-Classic Islamic world
3. Diffusion of the ogee arch to Guangzhou from the Middle East by way of the Indian Ocean and South China Sea carried there by Muslim traders in the 7th century CE
4. Islamic expansion across North Africa and into southern Spain by 711 CE transferring the ogee arch into Iberia
5. Eastern Mediterranean long-distance trade connecting the Middle East, North Africa and Venice in c. 1082 CE which brought the ogee arch to Venetian architecture
6. Diffusion of ogee arch from Iberia and Sicily to proto-Gothic, Norman architecture in France and then on to Gothic architecture in Church of St. Andrew in Westhall, England—1350 CE
7. Ogee arch introduced to Spain in the 12th century CE by Gothic architecture from France by way of the Pilgrims' Route to Santiago de Compostela and the diffusion of this aesthetic to Barcelona in 1420 CE
8. Transfer of the ogee arch to Delhi, India as a function of Persian imperialism in the shape of the Lodhi Dynasty that ruled the Delhi Sultanate from 1451 CE to 1526 CE and which constructed the Bara Gumbard in 1490 CE
9. Introduction of the ogee arch by Muslims from Andalusia into Toledo, Spain by 8th century CE
10. Diffusion of the ogee arch by the Jesuits from Early Modern Spain to Oaxaca, Mexico in 1760 CE
11. Use of the ogee arch in the Hidayet Cami Mosque in Istanbul, Turkey by the Ottomans in 1887 CE. This architectural element had been in use in the Middle East from the mid-7th century CE on.

9. Teacher identification of the events and world history processes that led to the existence of the ogee arch in seven out of ten global regions on the planet:
    a. Results of Imperialism—#2—Muslim conquest of Persia in 651 CE, #4—Islamic expansion across North Africa and into Iberia in 711 CE, #8—Lodhi Dynasty from Persia conquering Delhi, India in 1451 CE

b. Results of Long-Distance-Trade—#3—Muslin seaborne trade between Middle East and southern China in 7th century CE, #5—Venetian trade with northern Egypt and the Levant in 1082 CE
c. Results of Cultural Diffusion—#6—proto-Gothic architecture from Norman Sicily to France to England by 1350 CE, #9—Muslim transfer of Islamic architecture from Andalusia to Toledo, Spain by c. 750 CE
d. Results of Pilgrimage—#7—spread of gothic architecture from France into Spain by way of the Compostella pilgrimage route by c. 1150 CE
e. Missionary Work—#10—Diffusion of Spanish/Mudejar architecture from Spain to Oaxaca, Mexico by the Jesuits in c. 1760 CE
f. Continuity—#11—use of the ogee arch in the Ottoman Mosque—Hidayet Cami in Istanbul, Turkey in 1887 CE since the architectural element had been in use in Anatolia since c. 651 CE

Learning Activity 7—Developing the Notion of Multiple Causation in World History

Steps:

1. Teacher describes the dish of pizzoccheri pasta, which is a specialty from the Valtellina Region of Northern Italy.
2. Teacher then gives the students this list of ingredients for pizzoccheri :

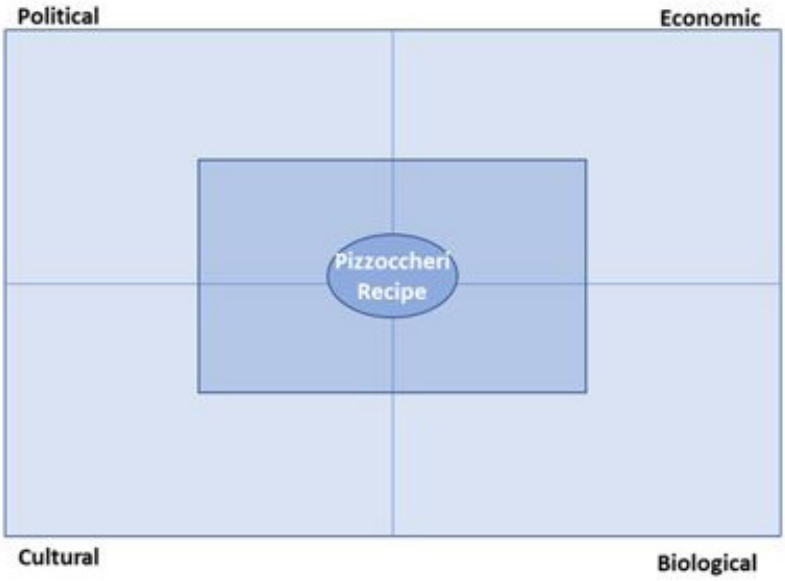
   buckwheat—80%
   wheat—20%
   swiss chard
   potatoes
   garlic
   black pepper
   parmigiano cheese

3. Class should be broken up into seven smaller groups and each group should be assigned to one recipe ingredient:

   Group 1—buckwheat
   Group 2—wheat
   Group 3—swiss chard
   Group 4—potatoes
   Group 5—garlic
   Group 6—black pepper
   Group 7—Parmigiano cheese

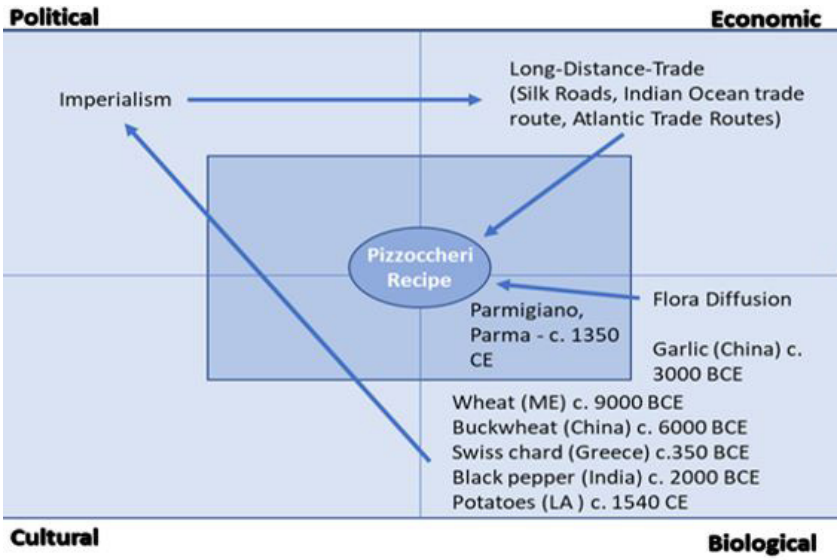
4. Tasks for each group to be accomplished in reasonable time limits set by educator:
   a. Research date and place of origin for assigned recipe ingredient
   b. Identify with teacher's assistance the time and method of the diffusion of the ingredient to the Valtellina Valley

5. All groups given one week of research time outside of class and some meeting time in class to share their research findings
6. Groups are given a date when all groups must be ready for a class presentation of their research evidence. On that given date, the group to present will be chosen by educator. For example, it could be group 6. This method should be employed by the teacher because it avoids procrastination by the group that is last on the schedule to present
7. Before group presentations begin, students should be shown the following visual organizer that addresses multiple causation in world history and all students should copy it in their notebooks:



Visual Organizer Explanation—Obviously, the pizzoccheri recipe is the topic and its location is in the center of the graphic organizer. The outside rectangle represents causes of the recipe that occurred outside of Western Europe and Italy and the interior rectangle represents the causes of pizzoccheri that occurred inside Western Europe and Italy. Furthermore, the entire visual organizer is broken down into four quadrants which are identified as political, economic, cultural and biological causes. For example, if research indicates a long-distance-trade "cause" of the recipe, it would be placed in the upper right-hand corner of the large rectangle. If some ingredient is indigenous to Western Europe or Italy, it would be placed in the lower right small rectangle.

8. Upon completion of the group presentations, the filled in graphic organizer would look as follows:



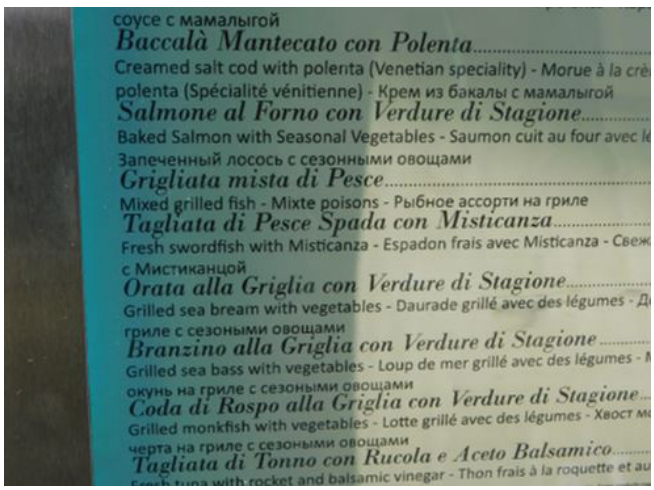
9. Teacher summary of the lesson:
    a. Causation in world history is many times a combination of internal processes and cross-regional dynamics as seen in the visual organizer above
    b. The combination of internal processes and cross-regional dynamics is very seldom balanced. It could privilege internal processes, or it could emphasize cross-regional dynamics as it does in this example.
    c. The cross regional processes involved in this example are: flora diffusion as in wheat, garlic and Swiss chard above, long-distance-trade as in buckwheat–Silk Roads and black pepper–Indian Ocean trade routes, imperialism as in Spanish conquest of Peru in c. 1533 CE, which is the place of potato origin.

Appendix

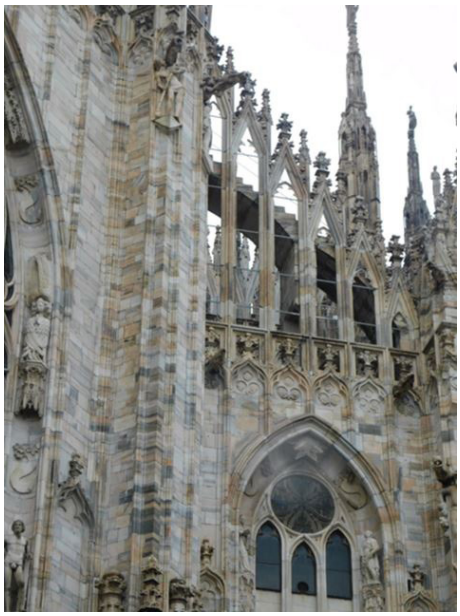
All of the photographs that appear here were taken by the author and are his property.

1. Merchant House—Grand Canal—Venice—c. 1350 C.E.

2. Rialto Spice Market—Grand Canal—Venice—c. 1350 C.E.



3. Baccala Menu—Venice—2020 C.E.

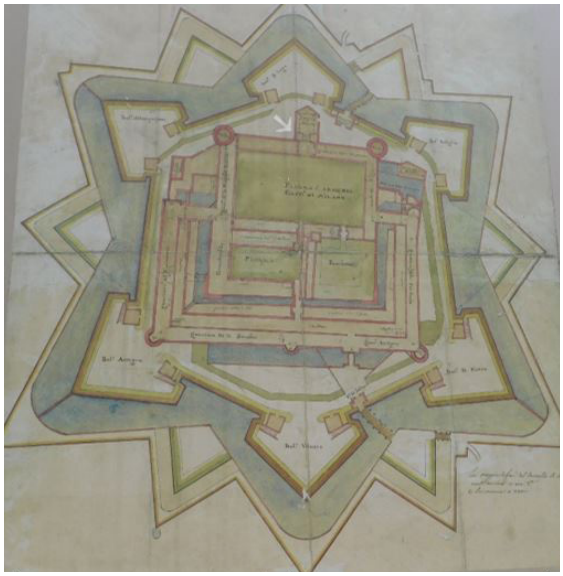


4. Flying Buttress—Duomo—Milano—c. 1400 C.E.

5. Dome Over Square—Chiesa di Santa Marta—Bellano—c. 1455 C.E.

6. della Robbia Type Ceramic—Lake Isola—2020 C.E.

7. Blue and White Room Heater—Bulzano—c. 1635 C.E.



8. Sforza Castle—Star Fort—Milano—c. 1550 C.E.

9. Ogee Arch—Chiesa di San Martino—Tirano—1589 C.E.

10. Mixtilinear Arch—Verona—c. 1650 C.E.

11. Pointed Arch—Verona—c. 1650 C.E.

12. Strapwork—Monasterio San Maurizio—Milano—1518 C.E.

13. Mashrabiya—Trento—2020 C.E.

14. Giardino Giusti—Charbagh—Verona—1580 C.E.

15. Palazzo Marinoni—Tirano—1654 C.E.

16. Virgin in Flames—Bressanone—2020 C.E.

17. Chiesa di San Rocco—Teglio—c. 1550 C.E.

18. Buckwheat and Potatoes—Teglio—2020 C.E.

19. Maize—Teglio—2020 C.E.

20. Cannoli Siciliano—Venice—2020 C.E.

Thomas Mounkhall is a retired world History educator, who has taught our subject in secondary school, at the undergraduate and graduate level courses. During his fifty year career, he has also directed and co-directed 25–30 world history teacher training workshops all over the country and in Cambodia. Tom has many articles available in World History Connected. He can be reached at mounkhall@aol.com.

NOTES

1 For discussion of luxury trade goods in Venice, see Jack Turner "The Spice that Built Venice," *Smithsonian Journey Travel Quarterly* 11/2/15.

2 See Mark Kurlansky *Salt: A World History* (New York: Penguin Books, 2001), 116.

3 See Stephanie Przybylek. "*Ogee Arches: Definition and Construction*," accessed November 11, 2020, https://study.com/academy/lesson/ogee-arches-definition-construction.html.

4 See mixtilinear arch at Carta Gate—San Marco, Venice, accessed November 12, 2020, https://commons.wikimedia.org/wiki/File:Venezia_porta__della_Carta_e_angelo_del_palazzo_Ducale.jpg.

5 See Islamic Strapwork in the Palatine Chapel, Palermo, Sicily, accessed November 12, 2020, https://commons.wikimedia.org/wiki/File:Palermo_Palatine_Chapel_Detail_of_the_Ceiling.jpg.

6 See Deborah Howard *Venice and the East* (New Haven: Yale University Press, 2000), 162.

7 See Patrick Hunt *Persian Paradise Gardens: Eden and Beyond as Charbagh*, accessed November 12, 2020, https://www.electrummagazine.com/2011/07/paradise-gardens-of-persia-eden-and-beyond-as-chahar-bagha. Accessed November 12, 2020.

8 See *Ideal Cities of the Renaissance: Two Models of Utopia*, accessed November 12, 2020, https://www.marcbielas.com/blog/2016/12/20/Ideal-Cities. Accessed November 13, 2020).

9 See https://web.mit.edu>jywang/www/cef/Bible/NIV/NIV_Bible/REV+12.html.

10 See Pauline Montagna *La Pestilenza: The Black Death in Italy*, accessed November 12, 2020, https://medium.com/the-history-buff/la-pestilenza-the-black-death-in-italy-197dc326abbe.

11 See Whole Grains Council *Buckwheat—December Grain of the Month*, accessed November 12, 2020, https://wholegrainscouncil.org/whole-grains-101/grain-month-calendar/buckwheat-december-grain-month#:~text=962.

12 See Habeeb Salloum *Arab Contributions to Sicilian Cuisine*, accessed November 14, 2020, https://www.arabamerica.com/sicilys-unique-contribution-italys-cuisine.

13 See *11th–12th Century Trade Routes*, accessed November 14, 2020, https://www.visualcapitalist.com/wp-content/uploads/2018/05/full-size-trade-map.jpg.

14 See *11th–12th Century Trade Routes*, accessed November 15, 2020, https://www.visualcapitalist.com/wp-content/uploads/2018/05/full-size-trade-map.jpg.

15 See Rabah Saoud *The Arch That Never Sleeps*, accessed November 16, 2020, https://muslimheritage.com/the-arch-that-never-sleeps/. See apex of Figure 2.

16 See *Qingjing Mosque*, accessed November 14, 2020, https://www.travelchinaguide.com/attraction/fujian/guanzhou/qingjing-mosque.htm.

17 See Venezia Basilica di San Marco Façade, accessed November 14, 2020, https://commons.wikimedia.org/wiki/File:Venezia_Basilica_di_San_Marco__Fassade_5.jpg.

18 See Close Up of Stained Glass Window at Church of St. Andrew, accessed November 14, 2020, https://www.suffolkchurches.co.uk/westhall.htm.

19 See Cathedral of the Holy Cross—Barcelona, accessed November 14, 2020, https://en.wikipedia.org/wiki/Barcelona_Cathedral.

20 See Bara Gumbard Masjid, accessed November 20, 2020, https://commons.wikimedia.org/wiki/File:Bara_Gumbard_Mosque_front_view.JPG.

21 See Monastery of San Juan de los Reyes, accessed November 14, 2020, https://commons.wikimedia.org/wiki/File:Monastery_of_San_Juan_de_los_Reyes_1477_-_1504_Toledo_(44)_(28864647A23).jpg.

22 See Side North Door for Ogee Arch, accessed November 14, 2021, https://things-to-do-in-oaxaca.mx/home/attractions/cultural-attractions/churches-convents/company-jesus-church-oaxaca.

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