



Ricordi del mio sogno

Memories Of My Dream

Report on An Experience In Italy 2023, by Andy Kreyche

(All photos by the author unless otherwise indicated.)

Non tutte le ciambelle riescono col buco

Not Everything Turns Out as Planned (literally “not all donuts come out with holes”)

The Experience In Italy program picks an educator each year from a US planetarium to travel to Italy. Since 1995, for ten days each spring, the person chosen travels to select places to teach astronomy lessons in English to Italian students. After I read accounts published here written by past winners, teaching in Italy became something I started to dream about doing. But unlike dreams that spring from the unconscious, this one requires a formal application to materialize. In 2019 I finally submitted mine, and later that year, on September 30th, while standing in front of the post office in Kettle Falls, Washington, I received confirmation that this dream would come true.

My wife, April, and I were winding down the last two days of vacation before flying home to California the next day. I assumed Kettle Falls would be a place with reliable cell reception, based on the relative size of its dot on the map. I had a window of time with instructions to call Susan Button, IPS Portable Planetarium Committee Chair and liaison to the Experience In Italy program. As it turned out, I had to walk a few blocks off of the main highway to find a decent signal. While locals went in and out of the building attending to their daily business, I received the news of a lifetime. I was selected to teach in Italy the following spring! Before getting back on the road, April and I had a celebratory lunch, washed down with a bottle of San Pellegrino sparkling water in anticipation of the experience to come in seven months.

Throughout the fall my excitement bubbled over as I contacted my Italian hosts and built a month-long European itinerary around the dates for the program. With plans now firmly in place, New Year’s Day 2020 brought with it a real reason for optimism. Our first trip off of the North American continent would begin on March 16, 2020—or so we thought.



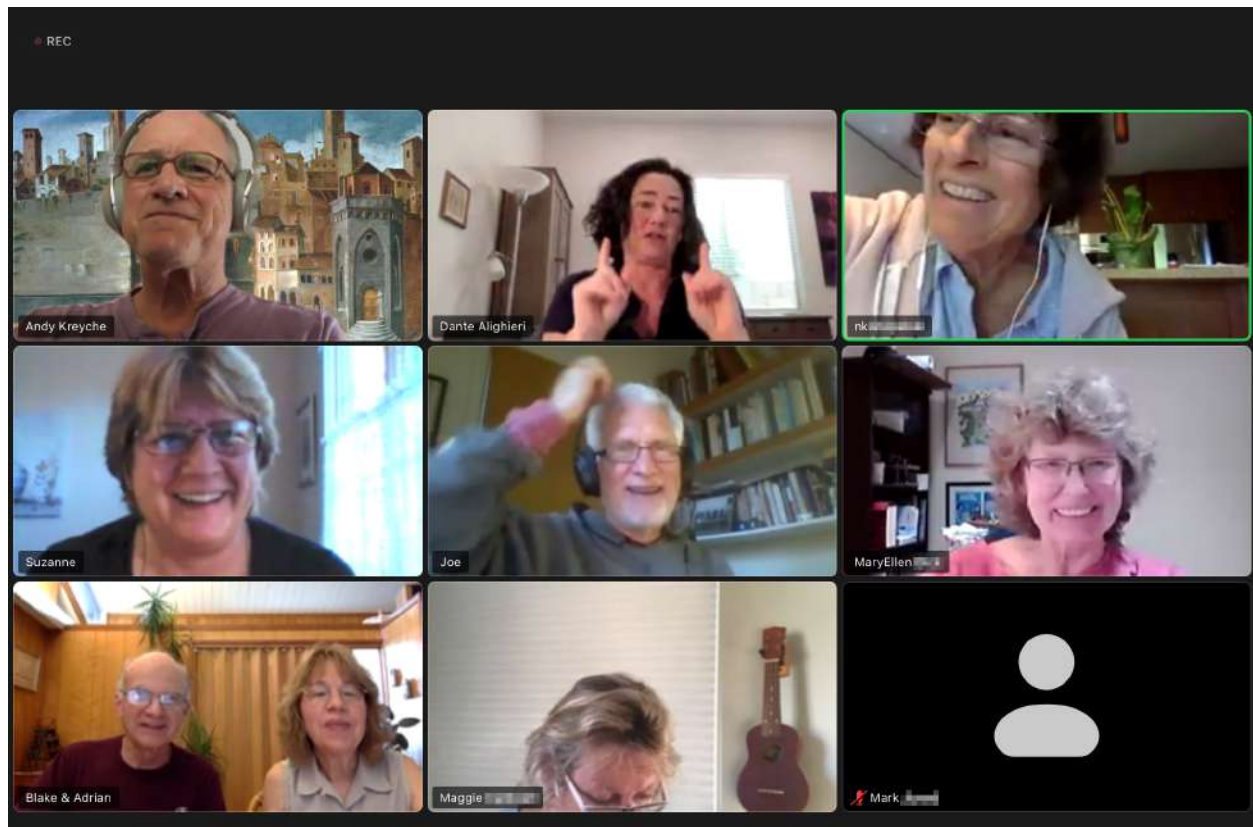
The post office in Kettle Falls Washington, as seen on September 30, 2019.

Finché c'è vita c'è speranza

While There Is Life, There Is Hope

By the time our planned departure date arrived, my dream of going to Italy was dashed, far superseded by the planetwide nightmare of Covid. Italy was an especially grim hotspot. The portable planetarium business I'd started a few years earlier came to a standstill, and ultimately wouldn't survive the pandemic. But I reminded myself there was much to be thankful for. April provided support, emotional and otherwise. Her job, working for a company providing streaming content, was more secure than ever, with so many people now staying home. And the promise of us going to Italy together served as a helpful, hopeful goal.

With so much of life moving online, I enrolled in online Italian language and cooking classes. I also attended monthly "Not Only Stars" presentations. Led by Kevin Milani, the 2018 Experience In Italy winner, these virtual gatherings continue even now as an extension of the program, maintaining connections with the Italian hosts and students. The sessions focus largely on Italian/American connections in history, culture, and language, with a bit of astronomy thrown in. I also stayed in touch via WhatsApp with Loris Ramponi, who coordinates the program. For a time, Loris couldn't venture further than 200 meters from his home in Northern Italy, so we shared voice messages, and I sent pictures from our local beach. We also shared photos of mutual interests: food and astronomical phenomena.



Enjoying an Italian language class on May 27, 2021.

Trovarsi tra l'incudine e il martello

Between a Rock and a Hard Place (literally, "an anvil and a hammer")

Because of strict restrictions in schools, the Experience In Italy initiative remained on hold in 2021, and again in 2022. But throughout the pandemic, Loris reassured me of the program's commitment to my visit. Then, late in 2022, he informed me that the program would resume the upcoming spring. Dates were selected and new hosts recruited, with just the final details to be confirmed.

By this time I'd accepted a job running a community college planetarium where I'd worked previously. My dean submitted my request for time off: comp time to cover the period when I would be teaching and all my vacation leave to explore Europe after the program ended. She was supportive, but also wary of gaining the approvals that would be required.

At first, the request was denied without explanation. When I asked for clarification, I was told that representing the institution while teaching in Italy provided "no benefit to the college." Despite follow-up meetings and negotiations, a line was clearly drawn in the sand: I must use my vacation time to participate in the program, and being gone any longer would result in my termination. I made peace with resigning my position and offered to return to work temporarily after Italy to fulfill existing obligations to school groups. I was told that a substitute could easily be found to take my place. So I gave my two weeks notice. In this way, and all in a matter of weeks, the job I'd thought would be my last before retirement, ended.

Coraggio, sei quasi arrivato!

Come On, You're Almost There!

Given all the turmoil during the weeks approaching departure, I welcomed the practical preparations during the last days before leaving. The program calls for teaching one main activity, usually during a single class period, and most often to high school students as part of their English language classes. A detailed description of the lesson was a key part of the application, along with listing any specialized English vocabulary the students should learn in advance.

The activity I chose to do was "The Human Orrery," which I demonstrated at the Live Interactive Planetarium Symposium (LIPS) conference in 2018 in Seattle, Washington. Although it's not the simplest lesson to set up or facilitate, I think the payoff is worth the extra effort. In my experience it is best suited to high school level students. I start by having students place a set of four looped ropes into concentric circles to mark the scaled orbits of the inner planets of the solar system. Then, as the remaining students watch, five students take positions in the model, representing the Sun, Mercury, Venus, Mars, and, of course, Earth. The activity requires a clear, large space, since the orbit of Mars is scaled to an 8.6-meter diameter. With the model in place, I review the daily motion of the Earth and our view from it, along with the ongoing orbital movements of these planets over the course of an Earth year. We've all seen diagrams showing a view of the solar system from above. This lesson connects that broader view with our

earthbound perspective. Starting off with an open-ended question (“Which planet is closest to Earth?”), the activity demonstrates what planets we see in the sky, bringing together the when, where, and why of it all.

I packed away my large spool of nautical ropes in an extra suitcase, along with materials for the activity to be presented at teacher workshops in Italy. As educators, we know we can never be too prepared. So on finding a surprising amount of additional room remaining, I proceeded to fill all the remaining space. I included gifts, additional activities, and an entire box of various NASA stickers. I’d planned to bring the stickers so every one of the Italian students I encountered could select one as a keepsake. Souvenirs help trigger memories. I would surely bring mementos back from Italy with me. In the same way, I wanted to keep the experience alive for the students. At the completion of the program, I planned to leave the ropes and any leftover materials with my final host, hoping they could utilize them.



Demonstrating the Human Orrery at the Live Interactive Planetarium Symposium 2019, Seattle, WA



Panoramic view of Perugia and the Umbra Valley.

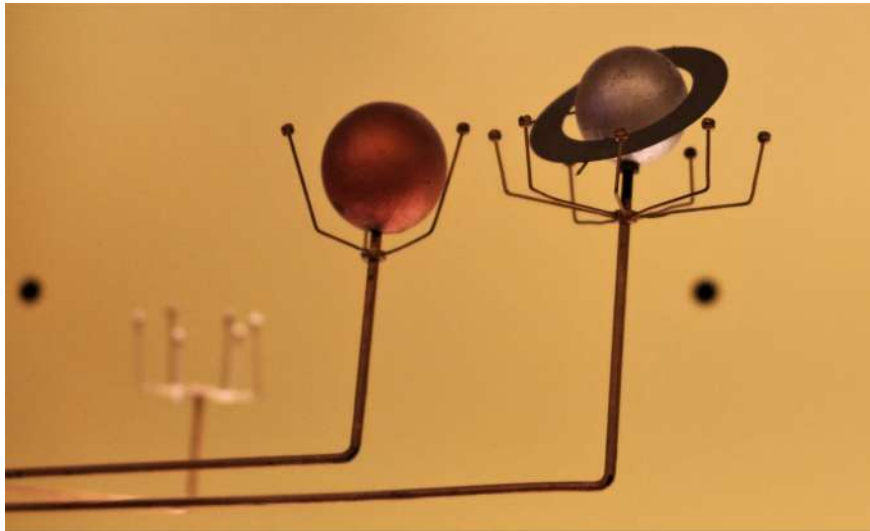
Nel cuore verde d'Italia: Perugia e Assisi

Into the Green Heart of Italy: Perugia and Assisi

Finally, a Sunday afternoon departure from the San Francisco airport on March 19th, 2023, set this long-awaited trip into motion. A layover in Germany was followed by a quick flight over the Alps and into Italy. On approach to Florence for a landing at sunset on Monday, I gazed down to see the Tuscan hills during the magnificent golden hour. The landscape was similar to that of the Central Coast of California we'd left behind but I keyed into distinctions, like the many villas and vineyards in the countryside. And the warm, glowing light served to heighten my anticipation for so many more delightful differences yet to come. Following this idyllic (or perhaps idealized) arrival, we rode into town with a lifelong Florentine cabbie and then checked in to our Airbnb. The fantasy continued to be fulfilled that night as we chanced upon one of the tastiest meals of the entire trip at an unassuming neighborhood osteria a short walk away.

April and I spent those first days in Florence exploring and becoming acclimated: to an ancient city, and ancient everything. Photographs could not prepare us for being surrounded by so much history. Our activities included touring the Museo Galileo (planned) and a virtual visit to an Italian doctor (unplanned, but cheap, easy, and successful). After three full days Tuesday through Thursday in Tuscany, it was on to Umbria. On Friday, we boarded a train to Perugia, home base for the first part of the program, arriving there three days before it was to start. Longtime program host Simonetta Ercoli met us at the train station and drove us to our Airbnb, meticulously decorated by its antique dealer owner. Although part of a 1930s-era apartment building, it felt like our own private villa. We spent the weekend getting to know this new city,

from enjoying its famous chocolate and taking in panoramic views of the Tiber and Umbra valleys to shopping at the local grocery stores and markets.



Detail from a 19th Century planetarium, or solar system model, on display at the Museo Galileo, Florence.

We wandered through the narrow streets of this university town, at times losing our way. On Sunday I sat in on activities Simonetta led with her former protégé, Luca, on behalf of their outreach organization, StarLight, un planetario tra le dita (StarLight, a handy planetarium). In an afternoon class children and parents observed with a solar telescope and assembled ingenious, locally designed paper sundials. The class took place alongside a 13th-century church at a grassy piazza, which was full of people casually socializing, as is always the case in such public spaces throughout Italy. An evening session for the public followed. This took place both inside and atop the medieval Sciri Tower, for which Simonetta has a key (how cool is that!). Once inside, we hauled telescope parts awkwardly up narrow stairways. There are 232 steps to reach the top. Fortunately, a winch hooked to a small platform took the equipment from an intermediate landing the rest of the way up.

Once at the top, I felt the cool breeze and was overwhelmed by the dramatic panorama of Perugia and the surrounding area. The familiar view of the Moon and Venus greeted me. Travel is exciting, but also disorienting. These old celestial friends, slowly sinking together toward the western horizon, was a most welcome sight. Although I was 42 meters up, I felt grounded. I knew exactly where I was. I was connected—to the Earth, the northern hemisphere, and just a little bit more to Italy. Perched on high, I soaked in the sights and sounds as evening deepened: historic buildings garishly lit up amid the otherwise darkened city, occasional car horns, sirens, and groups of voices passing below, the stars of Orion playing peek-a-boo with passing clouds, and confident astronomical explanations in rapidfire Italian.

Early the next day, Simonetta picked me up for the 30-minute drive to Assisi. Round trips would be repeated for three of the next four days as I met with many high school classes and led a teacher workshop at il Convitto Nazionale di Assisi (The National Boarding School of Assisi).

Before that first lesson, I only felt a bit nervous. I was looking forward to breaking the ice and then getting the most out of the experience of the program. I wanted to do well. Walking up the front steps, the school seemed familiar. The plaster walls and red tile roof were reminiscent of my Catholic elementary school in Tucson, AZ, along with many schools in California with Spanish Mission style architecture. But again, being attentive to differences, I noticed the school had a welcoming feel. By contrast, US schools these days, much like the walled Italian cities I'd encountered, seem to be designed as impenetrable fortresses. Another difference? This school has a coffee bar!

I returned from Assisi encouraged by a successful first day. The activity fit within the assigned multipurpose room, barely though, as the orbit of Mars was a bit squeezed. The students' English fluency was impressive, so I was able to complete the lessons in the time allotted, and best of all, we all enjoyed ourselves. While preparing for dinner, I checked in on the goings-on back home, only to read the grim news of a school shooting that had taken place that same day in the Green Hills area of Nashville, Tennessee. Six lives tragically and violently shortened in an all-too-familiar, American way.

Green hills are abundant in Umbria, giving it the nickname, the green heart of the country. Simonetta proved to be a wonderful companion and guide to this region. It was a pleasure to spend time with someone so like-minded about sharing science through hands-on learning. We traded materials, and she gave me a beautiful book about the constellations that she wrote. Raised in Perugia, Simonetta is firmly connected to the area and eager to share her knowledge about its rich culture and history.

The program asked that I give a brief introduction to each student group prior to leading each lesson. I was to tell a bit about myself and the place I live, Santa Cruz, California. Over the last few years I've been involved in learning about and supporting Indigenous people and practices. So I highlighted some of that knowledge. America may have been named after an Italian, but I reminded the students that an incredibly wide variety of native cultures thrived on the continent for millennia prior to 1492, and they still do today. The students seemed both intrigued and surprised to hear this perspective.

Repeatedly in Italy, I came face to face with artifacts dating back not just hundreds of years, but thousands. While in Perugia I made a point of walking through the Etruscan Arch, built in the third century BC. Cars whizzed through it, seemingly taking it for granted, while I, though familiar with astronomical time scales, could barely fathom the experience. How many people have passed through this arch in the over 5,000 years it has stood here? How many more will do so in the future? I'm in awe of the ability to create such lasting physical legacies within a human time frame. But I'm also trying to learn from the ways of the Amah Mutsun, the native people of the region where I live. Their values are evident in the wisdom they have gained by cultivating the natural connection to their home. Simonetta and my other Italian hosts seem to embody this spirit. Where they live seems to play a large part in who they are. I experienced this with a pride of place that was generously shared. But there seems to be a sense of place that goes even deeper.



From L Clockwise

Participants in a class at Piazza Francesco, led by Simonetta Ercoli, the tallest woman in Italy ;-)

Looking up inside the Sciri Tower in Perugia. Or is it down?

Students in Assisi choosing souvenir stickers after the conclusion of a Human Orrery lesson.



Middle school student group visiting the Planetario di Amelia.

Pace e bene: Amelia

Peace and Goodness: Amelia

Our time in Perugia included other unsettling news from home when April found out she'd been laid off from her job. After the initial shock wore off, we had more reason to simply live in the moment and appreciate the rich experience of each day and the people we encountered. Our week in Perugia concluded late on Thursday as Simonetta drove us through the lush Umbrian countryside to the southernmost part of the region. Once there, she would hand us off to our next host. Unlike in Perugia and Assisi, where the program took place only in schools, we would be staying in a facility with a planetarium. But this dome would be unlike any that I could ever imagine existing in the US. Our destination was the Convento Franciscano della Santissima Annunziata (Franciscan Convent* of the Most Holy Annunciation), located in an idyllic rural area 5 km outside the town of Amelia. Here, at a location new to the program and with a first-time host, we would be breaking new ground.

A few days earlier, after a light day of teaching in Assisi, Simonetta led April and me through the place forever associated with St. Francis. We visited his crypt and strolled through the beautiful and well-kept town, noticing the saying "Pace e Bene" on many souvenirs in the ubiquitous tourist shops. Well, peace and goodness were plentiful beyond measure during our stay in Amelia, and the spirit of St. Francis was embodied by our host, Fra Andrea Frigo. Andrea is the youngest of five Franciscan friars living at the convent, and his responsibilities and activities seem as endless as his talent, humility, enthusiasm, and kindness.

The planetarium features an Italian-made Gambato opto-mechanical projector and a 6-meter dome built into a former hay barn. Fra Andrea returned the 1980s-era planetarium to full operation after years of dormancy. He now hosts regular school groups and public programs, as

* In my experience, the word "convent" in English always referred to communities of nuns and other religious women. In contrast, I associated monasteries with communities of men or priests. In Italy, the terms *monastero* and *convento* aren't tied to gender. Religious people in a monastery live apart from the everyday world, and their prayer is centered strictly within their monastic community. Members of a convent, on the other hand, often have jobs in the outside community during the day, returning to live in their convent, a place where meals, prayer, and other aspects of common life are shared. The word "convent" comes from a Latin word that means "to convene or gather."

well as a yearly festival. In addition, Andrea created a remarkable science museum on the bottom floor of the convent opposite the planetarium. Open since the fall of 2022, “Museo della scienza” houses a unique array of scientific paraphernalia used in education during past centuries at other Franciscan outposts. From vacuum chambers with heavy glass lids to yellowed bottles of chemicals, cataloged botanical samples to Faraday coils, wax sealed bottles of snakes in formaldehyde to old alcohol meters, browsing this collection fired my imagination. There have been and continue to be many instances where science and religion clash. But pondering the source of these items reminded me of a history where advancing scientific knowledge was embraced as a valuable part of religious education. The new home for these artifacts, and their curator, combined to instill hope for a more inclusive and complimentary future where theology and science can coexist as they do so beautifully here.

While at the convent, we stayed in a sparse but comfortable room apart from the friars' quarters. WiFi was available throughout the buildings, but I spent little time online. The serenity of the surroundings provided a calming retreat and sufficient “connection.” Our meals with the friars in the dining hall were a communal, grounding, and incredibly tasty activity. Multiple courses of food appeared (dare I say “miraculously”?!), featuring produce from both the kitchen garden and the field where crops of lentils and garbanzo beans are grown. Complementing the meals were an array of beverages, including wine made by Andrea’s father in Verona. To more fully appreciate the friars’ lifestyle, I set an early alarm one morning to have the chance to sit with them during their morning prayers, which echoed within the walls just as they have for centuries.

My educational duties consisted of working with a group of visiting middle school classes, holding a workshop with teachers, and presenting an evening public program in the planetarium. These events did not have the strict time limitations of the school visits in Assisi. They flowed easily, in tune with the spirit of this place of reverence and reflection. I was able to lead additional activities, and Andrea showed astonishing photos of the aurora he’d taken during a recent expedition to Iceland. Trading off was a relaxing way to both teach and learn, and he and I became an easy-going tag team.

On the day the middle schoolers arrived, they all were gathered into a big circle with us and their teachers. Andrea asked each person present to share their name and age and answer the question: “What is your dream?” The responses provided fascinating insights into the minds of these young adolescents. When it came time to give my answer, I told the assembled group that my dream was to come to Italy to teach astronomy. I said quite honestly: “I am living my dream.”



From Top Clockwise

First and second hosts of the program, Simonetta Ercoli and Andrea Frigo.

Alcohol Meter in the Museo dell scienza at the Convento Franciscano della Santissima Annunziata.

Middle school students participating in an extra activity, the Pocket Solar system. Credit: Andrea Frigo



L to R

Fifth-century mosaics decorating the Mausoleum of Galla Placidia, Ravenna. Credit: [Petar Milošević](#), CC 4.0.

20th-century mosaic of the constellation Aries inside the Planetario di Ravenna.

21st-century mosaic modeling the style found in Ravenna created by April Golston.

Un altro sogno diventa realtà: Ravenna

Another Dream Comes True: Ravenna

A pre-dawn Sunday train took us to another new place, il Planetario di Ravenna (The Planetarium of Ravenna), another first-time participant in the program. While in Ravenna we certainly received far more from our hosts than I gave back in terms of educational time or value. Our Sunday arrival meant a day free from any teaching obligations. Prior to a delightful dinner that evening, our hosts treated us to a private tour, led by a professional guide, of a city I had wanted to visit for more than 40 years.

A favorite professor in college kindled in me an appreciation for the culture, art, and architecture of the ancient world. In his intro to humanities class we studied sites in Ravenna, a place he was passionate about. To this day I remember him insisting that if we were to ever visit Italy, Ravenna, not Venice or Rome, was the go-to place. Late that first afternoon during the tour, we marveled under a dome of magnificent stars. But we weren't in a planetarium. Ravenna is often called the city of mosaics, and these stars were made up of countless golden glass tesserae set against a luxuriously deep blue sky in the Mausoleum of Galla Placidia. Said to have inspired the Cole Porter song, "Night and Day," this vision of the heavens was one of a multitude of designs, featuring a stunning array of colors. These appear in a fifth-century building whose modest size and appearance from the outside betray no hint whatsoever of the splendors awaiting those who enter. Scenes inspired by Bible passages share wall and ceiling space with intricate kaleidoscopic patterns, depictions of nature, and borders with 3D effects. The effect was simultaneously stimulating ... and also incredibly calming.

The next day it was back to "work." But it hardly seemed like it. I walked the few blocks from our upscale hotel to the planetarium. Like the facility at the convent, this planetarium came to being in the 1980s and was built in a spacious public park. With a background of joyful sounds from a nearby children's playground, the exceptionally dedicated Marco Garoni gave me a tour of the facility he runs. Meanwhile, April was off creating a mosaic keepsake (at no charge) at a studio run by Marco's sister. Yet another act of generosity provided by our host.

The planetarium building includes classroom and office spaces and an 8-meter dome. A beautifully decorated exterior wall features a vertical sundial, in addition to an analemma and various astronomical charts. Fitting with the reputation of its home city, mosaics of zodiac constellation symbols are embedded in the floor all around the perimeter of the planetarium. The projector is a Zeiss ZKP2 that Marco lovingly and skillfully maintains. The displays and educational materials, along with the opto-mechanical projector, support the teaching of foundational astronomical concepts, so my orrery and a shadow activity I brought fit right in. The group of middle school students and their teachers arrived, so we convened in the classroom for my introduction. But being such a pleasant day, all the rest of our interaction took place outdoors. As with American middle school students, attention spans reached their limit by the time the main activity concluded.

Just as we were wrapping up, a young woman approached me. In perfect English, she asked, "What are you doing here?" I told her about the program and briefly explained the orrery activity. My reply confirmed her suspicions. A grad student recently arrived from South Carolina, she had been watching the activity from a distance while lounging in the park with friends. She somehow determined the style of the activity to be American. Guilty as charged.



From Top Clockwise

Marco Garoni, dwarfed by the sundial wall outside the Planetario di Ravenna.

Touring the Basilica di Sant'Apollinare Nuovo.

Students predicting shadow movement during an activity.



Tarcisio Zani outside the Osservatorio Serafino Zani at sunset. Credit: Luigi Cocca

Dieci ore frenetiche: Brescia e Lumezzane

Ten Jam-Packed Hours: Brescia and Lumezzane

As the program progressed, each stay became shorter. After three nights in Amelia and two in Ravenna, we arrived in Brescia on Tuesday afternoon, with plans to stay overnight and leave first thing on Wednesday. If there is one disappointment about the trip, it was the little time I was able to spend with Loris Ramponi, organizer of the initiative. Brescia and the Serafino Zani Observatory in nearby Lumezzane serve as his home base, and he is also involved in many other activities with Associazione dei Planetari Italiani (The Italian Association of Planetaria, or “PlanIt”).

After our 2 PM arrival in Brescia, my one lesson was to take place at 4:30 inside the municipal theater in Lumezzane, a town 30 minutes away in the foothills of the Alps. The event was open to the public, but the primary audience at the theater would be three classes of high school students, all taught by Alessandra Seneci, whom I’d met online at the “Not Only Stars” presentations. Loris had shared with me the newspaper article promoting my appearance, and based on a conversation with a past winner, I was prepared for this to be a big deal. And it was. You’d have thought it was Neil deGrasse Tyson, not me, who was coming to town.

The dizzying chain of events from our arrival in Brescia to setting up at the theater in Lumezzane included confusion at the train station, a brief meeting with Loris at Brescia Castle, a minor traffic accident on the way to our hotel, and my realization that there wouldn’t be enough room for the activity at the small space set aside in the theater. Fortunately, once I arrived, I was able to make arrangements to take over the main stage of the facility after my introduction. The students were excited, the anticipation palpable. And once things got underway, I was energized.

After the previous 8 days of the program, I was well-practiced at leading the lesson, and it went well. Afterwards, there was an extended period of Q&A, followed by a speech by a member of the representative of the city, and group photos. While the event was winding down and students selected their souvenir stickers, several approached me to ask if they could take selfies with me and ask follow up questions. I happily obliged, thoroughly enjoying their enthusiasm. Looking back, I'm glad I seemed to live up to the hype. But if Neil de Grasse Tyson consistently lives his life at such a frantic pace, I wouldn't want to switch places.

After quickly packing up, there was no time to waste. We had to get moving again! Groups of us in several cars left the theater to go to the nearby high school. There, we were led on a quick walkthrough of their planetarium (6-meter dome, Gambato opto-mechanical projector). With no time to waste, we piled back into our vehicles so we could make it to the Serafino Zani Observatory by sunset. After a drive with countless twists and turns up the side of a mountain, we admired the view and met up with some of the collaborators who were instrumental in the observatory being built in 1993. Inside, a Ritchey Chretien 400mm telescope (f/8) occupies a beautifully constructed dome with an adjoining classroom. With the moon up and night falling, we walked to a nearby chapel, open only because it was Easter week. The view of Lumezzane from above was stunning, with the last light of dusk fading into night. I paused and didn't want to leave, but it was time to move again. So down the mountain we went, back to town and a pizza dinner.

Later, while heading back to the hotel in Brescia with a full belly, there was time to reflect on how the previous few hours had gone by in such a quick, but gratifying blur. Once we arrived and I got out of the car, I realized that during that blur, I'd misplaced my backpack. Thankfully Ivan Prandelli, local amateur astronomer and our volunteer driver and guide for the day, cheerfully undertook yet another round trip between Brescia and Lumezzane to retrieve it. The backpack, with all my camera equipment still safely inside, was reunited with me at the stroke of midnight. Whew!

During the Q&A session in Lumezzane, all the inquiries were thoughtful and characteristically enthusiastic. But one particular question especially delighted me. A student asked: "Why do you think learning this is important?" This very question is one I enjoy posing to students. I had done just that after leading the orrery activity with a homeschool group in Perugia a week earlier, so I was ready with my answer.

I talked about how people can easily go through life *without* understanding what I'd just demonstrated. We don't *need* to know how the solar system works. It may not affect our day to day decisions to know that we live in a galaxy with countless stars and a universe with countless galaxies. But knowledge—any knowledge—can provide context about our existence so we can more fully understand the big picture. And there's no bigger picture than the universe. Understanding the cosmos gives us an even greater sense of who we are. A sense of belonging. And when we feel like we belong, be it within a family, a social group, a city, a species, or a planet of 9 million species, our life has a greater sense of purpose and meaning.



Top, the Human Orrery in motion at the municipal theater in Lumezzane. Credit: Luigi Cocca.
Bottom, the author with Loris Ramponi, holding a gift from California. Credit: Ivan Prandelli



The author, taking in the solar system model outside La Torre del Sole in Brembate di Sopra.

Tutte le cose belle devono finire: Brembate di Sopra

All Good Things Must End: Brembate di Sopra

Our last day with the program was far more leisurely. Yet another new host, Marzia Albani, picked us up to drive us the hour or so to her science center in Brembate di Sopra, a suburb of Bergamo. Each time we left one host for another, I found myself thinking that our new host couldn't possibly live up to the kindness of the previous one. By now, you think I would have learned. All our hosts were singularly kind and generous people, each in their own way. This was certainly true of Marzia as well.

La Torre del Sole (The Tower of the Sun) is an impressive place for science education. The facility was built at the site of an old municipal water tower. In a brilliant combination of community vision and civic accomplishment, the tower was saved from demolition and converted into a solar telescope, with the science center constructed in the surrounding area below it. Now operating for 15 years, La Torre del Sole provides broad experiences for visiting school groups and the public. Having the good fortune to visit on a sunny day, we sat in on presentations in a room at the base of the tower that serves as a viewing and demonstration area. There, live images of the sun can be projected. This is where I interacted with school groups. Likewise, the tower itself, now an observatory with a 300-mm refractor accompanying the solar telescope, has seating areas for visiting groups. Elsewhere there are activity areas, a flatscreen theater, and an 8-meter planetarium dome with a digital system that was updated shortly after my visit.

These many aspects of the facility operate due to the well-coordinated effort of a team of skilled educators. Although I didn't lead any activities during my visit, I came away inspired both by the array of experiences this center provides and the camaraderie among Marzia and her colleagues. Before coming to Italy, I wondered whether the materials I brought with me would even be used after I left them at my last stop. As if written in the stars, La Torre del Sole was the ideal place to make use of them. I spent the afternoon of that last day talking Marzia through my two principal activities, leaving those materials, along with all other extras, in her capable hands. She was delighted to receive them, as they had been looking for new activities to use during their upcoming summer programs.

At the end of the day, with the program now concluded, Marzia generously drove us 30 minutes up into the mountains. I chose an Airbnb for the night along the Bremba River in the town of San Pellegrino Terme, yes, home of the sparkling water April and I sipped with our lunch three and half years earlier. Here, we ended this 10-day adventure that had taken nearly four years to come to fruition. Over an incredible dinner, we made a toast with local wine, saluting the realization of this dream and the opportunity to live it.



From Top Clockwise

A visiting school group is treated to a lesson in light at the base of the solar telescope at La Torre del Sol.

Billy Astromondo and host Marzia Albani, colleagues at La Torre del Sol in Brembate di Sopra.

The author and wife, April, celebrating the successful conclusion of the program in San Pellegrino di Terme.

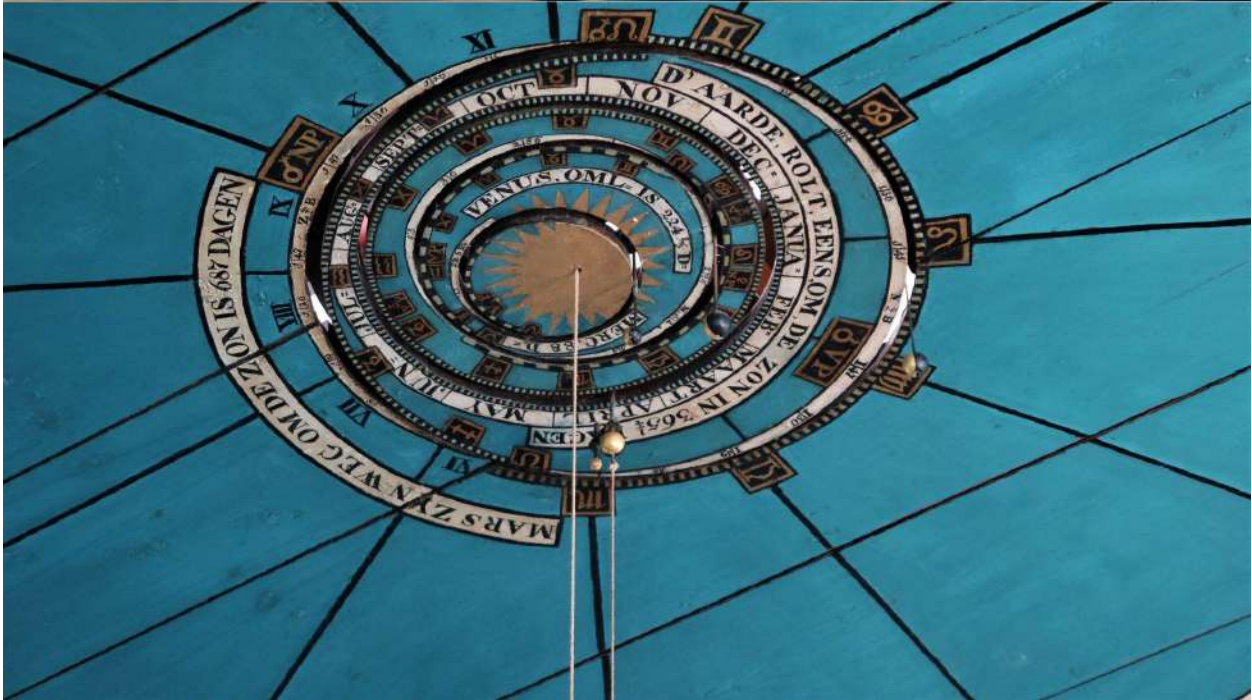
Coda: Eise Eisinga Planetarium

After leaving Italy we spent a few days in the Netherlands. I'm not a big fan of the term "bucket list," but ever since hearing about the Eise Eisinga Planetarium in Franeker, I was immediately drawn to visit it. This planetarium is actually a museum centered around an 18th-century mechanical orrery designed by an amateur astronomer and built into the ceiling and attic above his former living room.

Why did he do it? Panic had ensued when fellow villagers believed an upcoming planetary alignment would somehow cause the Earth to perish. So Eise Eisinga set out to create a model that would clearly and accurately demonstrate how the solar system operates. He undertook this incredibly difficult and complex task to educate. To broaden perspectives. After I'd just spent time with Italian students trying to do much the same thing with my human orrery, I thought this would be the perfect place to reflect on the value and legacy of astronomy education, and the drive to share this cosmic viewpoint. Whether in Italy or elsewhere, my goal as an educator is to teach in a way that engages. I'm deeply gratified when I look into the eyes of students and see active thought and curiosity, especially when followed up by deep questions.

I am incredibly grateful for the opportunity to take part in the Experience in Italy program, made possible by the collective talents and collaborative work of Loris Ramponi and many other wonderful people. Before leaving my job, my next dream was to use this program as a model for creating a similar one bringing Latin American educators to California. This vision may morph into something similar or something altogether new. As I write this I am in a liminal, or in-between space, waiting to walk through the next door, yet unopened. I'm keeping in contact with Loris, a person overflowing with both ideas and the ability to see them to fruition. We have plans for further collaboration and my "Experience In Italy" will inspire me to pursue collaborations closer to home as well. I learned from my Italian colleagues and I will continue on that path. In this manner at least, the way forward is clear. We can learn so much from each other.

In spare moments throughout my time in Italy, I would check in with myself about how I was feeling. This is what came to me repeatedly: "il mio cuore è pieno." Translation: "My heart is full." And it still is.



Top, some of the inner workings of the central part of the oldest functioning orrery, the Eise Eisinga Planetarium in Franeker, The Netherlands. The clockworks and gears are located in an attic space.

Bottom: Looking up at the inner solar system as depicted by the orrery at the Eise Eisinga Planetarium. Now a museum, the solar system model is located in what was once the living room of its former owner.