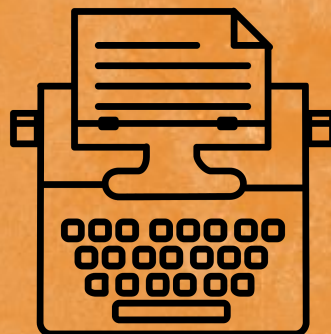


Title:

Author:

Occupy Climate Change (OCC!)

*Creative story
entry*



FORMAS



2200, Rome

Cordella Martina

The sound of water draining from the air conditioner is getting louder and louder. Today is one of the days when the hellish heat makes the air devoid of oxygen. The thermometer outside reads 54 degrees. The sun's rays have become so strong that they burn your skin even early in the morning. Putting on sunscreen is no longer enough to protect your skin: severe sunburns are the order of the day, and almost the entire population has developed polymorphous solar dermatitis. The only way to get from one point to another in the city during the summer is to travel through underground tunnels that have been dug specifically to cope with heat waves. The "Rome-Underground" project was developed as part of the plan to adapt to the climate crisis: health problems and deaths due to excessive heat had increased considerably, for which the municipality had to find a solution that resulted in a network of underground roads. Initially, it was planned to widen the subway lines, but citizens protested that it would be too dangerous to pass by the trains and, moreover, they would be too narrow to allow transit for all the people moving around. So, they decided to build a network of exclusively pedestrian-only underground passageways, but still connected to public transportation stops. They were the saving grace for all those who do jobs that cannot be done in smart work, blue collar workers and shopkeepers in particular.

Life takes place mainly either underground or at night. During the day the streets, at least the secondary ones, of Rome are deserted, not only because not a single person can be seen walking: green areas are extremely rare, rather dry, and often incidents flare up due to drought. Automatic sprinklers are in operation during all daylight hours and manage to mitigate the problem, but this applies only to the more central areas. In the suburbs, most parks are becoming infertile sand pools. This has happened because they have become agglomerations of heat islands: old metal structures and cars still persist in the poorest parts of the city, almost all of which have been turned into dumps of artifacts from Old Rome, the pre-climate collapse one. But adaptation strategies have been varied, and many areas of the city have been preserved and made environmentally sustainable. Main streets and ancient ruins have been shielded by a few clear glass domes and climate-controlled to preserve historic monuments from extreme events.

This is how surface sections can be walked during the scorching summer. My favorite route is the one that starts from Piazza Venezia and runs all the way down Via Dei Fori Imperiali to the Colosseum. Keeping to the left, there is a gate that marks the entrance to Colle Oppio, also maintained under a dome. It is one of the few green areas in Rome that has remained as such and virtually unchanged. The entrance to the park is marked by an asphalt slope flanked on both sides by strips of green lawn. At the end of it, on the left, is a fountain that, put back into operation after a long time, has become home to some freshwater aquatic species now extinct in the wild. It is part of the Urban Biodiversity Conservation project, which sees the collaboration of the fields of biology and cultural heritage. In this way, ecological education has been made an everyday subject and within reach of everyone. At the same time, however,

the Ministry of Culture makes sure that important historical architectural elements are not damaged.

Going back to my air conditioner, it has been on long enough to cool the house and fill the second canister. I can turn it off and prepare a new canister for drainage. The already full canisters I put outside the house. They will be picked up to take them to the re-mineralization center, so the water that will be used for irrigation will be recycled. Nothing should be wasted, least of all such a precious commodity as water. I open the refrigerator with the aim of preparing a fresh salad and a spinach for lunch, but I realize that I do not have all the necessary ingredients. I go downstairs again, this time to reach the condominium greenhouse. I pick up an avocado, a couple of cucumbers, and some cherry tomatoes to compose my salad. For my spinach spinner I choose instead an apple, a carrot, an orange, and some fennel to make it a bit cooler. The greenhouse is composed on the model of agroforestry: fruit trees coexist with a good variety of crops. The former are permanent inhabitants of the greenhouses, planted during the reconstruction of the building, while planting is decided every four months during a condominium meeting so as to ensure some variability in diet and crop. To date, the houses are all built in this way, as if they were small urban ecosystems: each building has its own shared greenhouse that all condominiums must take care of, cooperating with artificial pollinating insects. The facades are covered with ivy and climbing plants that can withstand severe temperature changes, especially the extreme heat typical of Roman summers. In this way the city manages to keep the air breathable. This is a model of Eco-Building designed for climate adaptation and which, together with implemented public mobility powered by solar electricity, keeps pollution under control. Private cars are rare to see around: they have made them electric yes, but also hyper-expensive so as to discourage their purchase and prevent the whole city from falling victim to heat islands as happened to the suburbs.

I finish my salad and my spinner and put the dirty dishes in the dishwasher. I take in enough vitamins and minerals - the average amount given in the government's heat wave guidelines - to make it out of my apartment. I slip on my sunscreen poncho, dark glasses and head to the nearest underpass. I can feel the heat of the asphalt through my shoes. Fortunately, it takes me a few steps to take shelter in the tunnel underground. I slip off my poncho and put it in my backpack. Underground Rome is teeming with people strolling through the wide, brightly lit corridors. In some places, looking up, you can see shielded skylights that allow you to see the sky, the real one, not the reproduction projected on the ceiling of the underpasses to make them more acceptable and less claustrophobic. As proof that life in summer has moved underground, they have opened some stores and clubs: so people can sip cold coffee under the city. My destination today, however, is no coffee shop. I have an appointment with my friend Iris to see the ancient ruins of Ostia Antica. They reopened the archaeological site a few weeks ago, after years of renovation and adaptation to the new climate regime. They say it is a sight never seen before, that it is an almost fairy-tale experience. We could not miss this event.

I have an appointment with Iris at the Eur pond. Before the collapse it was an artificial pool where a few mallards and mallards lived. They used to give rowing lessons there. After it evaporated, it was included in the Aquatic Recovery and Conservation Project, and now, enclosed under a glass bubble, it is a fully developed ecosystem: it is a reproduction of an asiaco lake, with colorful mandarin ducks, carp, tuna and salmon jumping out of the water and huge goldfish swimming just below the surface of the water, decorated with fallen cherry blossoms.

"Marguerite look!" the voice of Iris comes ringing from behind me. She rests a hand on my back and brings my attention to the tree where I was resting. A nightingale from Japan, its feathers fading from yellow to bright red, rests on a small branch and, shaking it slightly, drops several flowers. The petals rain down over our heads like pinkish snowflakes, light and delicate. For a moment we forget about the terrible summer heat waves gripping the city. For a few minutes we forget that we live in Rome. Together we head for the subway. A few stops and we will have arrived at our destination.

The carriage is half-empty and the air conditioning makes a sharp contrast with the temperature outside. Before we get off we put on our sunglasses and cape to protect us from the still very strong sun at four in the afternoon. Not exactly the best time to take a field trip, but the visit will last a few hours as the site is very large. We have to walk part of the way to the entrance and wait for the visit to begin.

As I mentioned earlier, the archaeological site of Ostia Antica has recently reopened to the public. This is because a hundred years ago it was the victim of a terrible flood. The Lido of Ostia no longer exists: it has been submerged for a hundred years now, due to rising sea levels caused by the melting of perennial ice. From year to year the tide rose higher and higher, until it reached its present level and submerged even the ancient ruins of Ostia Antica. It took years to restore it and proceed with its underwater restoration. It could have been lost forever, but instead the opportunity was taken to once again make it a tourist destination, this time through a tour conducted via underwater shuttles. Once again, culture and biology collaborate to create a unique cognitive and educational experience: one does not only move among the underwater ruins, but also together with various sea creatures.

We get in line to get on the shuttle. It is quite small, only a few people fit on it at a time. Just as well, we enjoy the visit more. Once we get in, we can finally take off our sun-protection cloaks and put them in our bags. I was expecting to be able to see outside only through relatively small portholes, but instead the right side of the small submarine is totally made of clear glass, so clean that it seems almost not to be there. For the descent, we are made to take our seats, sort of like they do on airplanes. Two beeps and a voice from the loudspeaker reads, "Kind passengers and passengers are asked and requested to take their seats for the dive. You will be notified and warned once the procedure is complete. Now please enjoy your descent." Two more beeps and the vehicle begins to move downward. With our eyes fixed on the glass, we see the water slowly rise and embrace the vehicle. It is a peculiar sight, a new experience

but at the same time a sense of anguish assails me. Iris must have noticed because she turns to me and asks, "Are you all right?"

"Yes," I reply. "Yes, everything is fine. It's just that I was thinking how traumatic it must be to experience the flood. Until the last century it was an area of Rome like any other. I mean, it was emerged, inhabited. So many people saw their homes as they were swallowed up by the sea. It must have been terrible."

"I hadn't thought about that. I guess I did. Now that you've pointed it out, a sense of uneasiness has come over me."

"Yeah, forgive me. That was not my intention."

"Let's not think about it now. What happened cannot be changed now. Let's enjoy what is good that has been left to us."

Again the two beeps bring your attention back to the speaker: "The descent is over. In the drawer below your seats you will find audio guides. You may get up from your seats and approach the glass. We hope that what you will see will leave you speechless. Enjoy the ride."

We put on our headphones and approach the huge window overlooking the sea floor. Seeing ancient Roman ruins is truly a unique sight. That melancholy feeling that grips you when you think of the civilizations that lived before us becomes even more pronounced. At the same time, however, it feels like being in another dimension. I see a school of mosaic fish moving fast among the reddish earthen niches, if they stop swimming they almost blend in. I turn on the guidebook and select the item "Mosaic Fish and Ancient Roman Houses." "The Mosaic Fish, also known as Gurami perla, was a species bred for sale in aquariums. Typically tropical, with rising temperatures it first reached the Mediterranean and then moved here to the Tyrrhenian Sea, becoming endemic. In the submarine renovation of the ancient city of Ancient Ostia, some aquatic plants such as *Hydrocotyle leucocephala* and Tiger lotus, favored as hiding places by the mosaic fish, were included in some of the old Roman insulae." I see them for the last time as they hide in a burrow.

My attention is caught by the remains of an old temple slightly in the distance, from which I see a white cloud rising. Thanks to the guide, I discover that it is the Capitolium, the main temple of the ancient city dedicated to the three Roman gods Jupiter, Juno and Minerva. The white cloud, however, was a school of jellyfish whose bloom is difficult to keep track of. This is because it is a highly invasive species attracted by the increasingly warm waters of our sea. Algae and corals of all kinds, finally, had colonized every available column, making the underwater ways even more unique.

After about three and a half hours the visit is over and we proceed to the ascent. Putting our capes back on to protect us from the still bright and high sun at eight o'clock in the evening, we walk on the footbridge back to the mainland. Iris and I say goodbye with a promise to see each other again as soon as this scorching summer is over.

As I head toward the subway to go home I see smoke in the distance. It is strange to see it around here. Nothing but the Pine Grove could catch fire, but this one is protected in the domes. I get on the subway to go home. Part of the route passes right by there, so I decide to keep my eyes out the window to try to catch a glimpse of something. And that is exactly what happens. The glass of the dome must have been badly damaged and the fiery sun rays have reached the vegetation, starting the burning process. I can't see anything else in the few seconds the train passes by there, the only thing I can do is hope they can contain the damage. The Pine Forest is the lung of the city, the only entirely green spot left and made pristine. Access to the reserve has been banned precisely to prevent pollution and damage to the only place that can provide oxygen in a Rome victimized by heat and drought.

I get home in time for the special edition of the news: "Breaking news: a fire has broken out in the Castel Fusano pine forest. According to initial investigations, the origin of the flames is said to be attributed to sunlight that penetrated due to a fracture in the protective dome. It is not yet known how the glass could have shattered. Meanwhile, firefighters are keeping the flames at bay, and specialists are on their way to the scene to conduct analysis and investigation. More updates will be given in tomorrow morning's edition." Images of the reserve fire victim scroll across the screen at the conclusion of the report.

Very strange, this is shatterproof glass designed to withstand any kind of impact. Who knows what must have happened to cause it to crack. Strong an act of arson? But it would not have gone unnoticed, there are monitoring cameras everywhere in the area. Whatever the cause, I will find out tomorrow morning, but this uncertainty does not make me feel comfortable. This is one of the most important areas of Rome, much more than the Colosseum, the Trevi Fountain and all the monuments that have characterized the city for centuries. The Pineta is an extremely valuable asset, the only urban ecosystem that has remained intact over the past two hundred years. Over time it has become a source of pride and to lose it would be a blow to all Romans. I turn off the TV. Seeing those images makes me anxious. I try to divert my attention from this dramatic event by thinking about dinner, but I don't have much appetite, so I finish the fresh vegetables left over from lunch and get ready for bed. I put the timer on the air conditioner by selecting the anti-moisture mode. Living in a small studio apartment, it doesn't take long to cool the room. I turn off the lights, slip into bed and wait for tomorrow.

The sun's rays filter through the shutters and come directly to my face. Usually I like to wake up with their caresses and thanks to the natural light, with thoughts coming softly into my mind. This morning, however, my attention immediately focuses on the matter left unresolved the night before. I need to know what has happened at the Pine Grove, I need to know how she is doing. I turn on the television still with my pajamas on. The morning edition reassures all citizens that the fire has been tamed and extinguished overnight. There was damage, but nothing irrecoverable. This news already gives me relief, a feeling that is not likely to last. They found out how the dome was shattered: "From the analyses conducted during the night,

it was found that the cause of the glass breakage was attributed to the heat of the sun's rays. Accomplice to the temperature change inside the dome, pointing fixedly at the glass heated it so much that it exploded. Experts are already working to repair the damage and think of a solution that can cope with the increasing heat. One thing is certain: temperatures are rising again. We can only hope that the autumn equinox will arrive soon. We advise you to stay out of your homes for the remaining summer days."

I remain interjected. I thought we were able to tame the climate situation by now. The adaptation policies that have been implemented so far have always worked. News like this will send the population into a panic, and if the government does not find a solution soon, Rome will fall into silent chaos. As happened last time: unable to stay on the streets for too long because of the high temperatures, the protests took the form of a total strike. No one leaves the house, no one goes to the workplace, and those doing smart work do not turn on their PCs. The city comes to a total standstill. Perhaps the shutdown is already developing. But out of fear. I raise the blinds and see all the lights in the houses turned on. No one seems to have left the house, much less will I. I put my head back inside the apartment. I leave the TV on waiting for directions from the municipality, instructions that were not long in coming. All the channels are colonized by the mayor's face repeating the following words, "To all citizens and female citizens. Given the reasons that caused the rupture of the protective dome of the Pine Forest, an artificial rain will be induced in the coming hours with the aim of rebalancing the temperatures. This is an experimental technology, but given what we risk we have no choice. The underpasses will be closed and armored to prevent seepage and flooding. We strongly recommend that you do not leave your homes. We promise that by tomorrow everything will be back to normal."

Normality. I shudder to think that temperatures hovering between 50 and 61 degrees are normal, but in a way they are.

The report continues, "By now, the Earth's biogeochemical cycles have been changed, and the old balances can no longer be recovered. What we can do, and are doing, is to adapt to the new climate conditions that arise, relying on climate technology developed by our researchers. It is the only path we can take." The same message is repeated from emergency speakers placed in the streets. I hear it through the window: I look out and see the few people in the streets hurrying back to their homes. Now Rome is silent, a scorching asphalt desert.

I see a few drops of water settling on the road. The operation must have started. The rain is becoming more and more present, falling straight down to the ground until it bursts into a thunderstorm without lightning or thunder, controlled. usually the sound of falling drops relaxes me, but this is different: it's as if someone has turned on a giant sprinkler all over Rome at noon. The sun, in fact, is still high in a cloudless sky. It is a strange sight.

After a couple of hours my eye falls on the thermometer marking the outside temperature: it's 45 degrees. It's working. The rain first starts getting lighter and then stops. They can't keep it on for too many hours, otherwise they risk triggering an extreme weather event and Rome

would end up like Ostia Antica: it would end up submerged. It is about 6 p.m. when the loudspeakers go off again: "We are pleased to inform you that the operation has been successfully completed. The domes have returned to a temperature far from the breaking point. Localized rains in the areas most at risk will be activated in the coming days. Authorities are in the process of reopening the underground passages. You will soon be able to go out into the streets again. Rome is safe. You are safe."