# Mediterranean winds: Transversal dialogue in turbulent times

Lucy Sabin and Jorge Olcina Cantos

> [I]magine stepping into the nonsensical middle of a *rosa de los vientos*, a compass, featuring the winds of the Mediterranean. Arms outstretch, fingertips comb the sea breeze, in a gesture of becoming-open to the ever-changing conditions of immersion: air–wind–algae–dust–breath. (Sabin and Olcina Cantos, 2024, 1052-3).

This chapter takes the form of a transdisciplinary dialogue on contemporary experiences and historical narratives of Mediterranean winds, focussing mainly on the western portion of the Mediterranean basin. As two researchers who are equally fascinated by atmospheric phenomena, we have approached the writing of this chapter as an experimental, dialogic inquiry across our respective disciplines. Jorge Olcina Cantos (JO) speaks on climatology in times of climate change and Lucy Sabin (LS) draws on cultural studies within postcolonial contexts. Moments in the dialogue where our displinary boundaries become more porous and our concerns conflate can be attributed to the interrelatedness of cultures and climates. It is hard, perhaps impossible, to understand climatic forces without cultural narratives and vice versa. Notably, we draw attention to power relations and biases in meteorological sciences and cultural perceptions of weather. Our dialogue thus contributes to broader debates on ways in which societal narratives and weather patterns co-emerge in turbulent times (e.g., Berland 1994; Neimanis and Hamilton 2018; Mahony 2021).

The dialogue itself is a vehicle for our mutual curiosity, with the objective of opening up discourses on climate change beyond disciplinary siloes and dominant narratives. That said, we do not strive for a unified voice here. The dialogic format allows us to arrive at shared insights without necessarily attempting to establish a conceptual or authorial synthesis, which would in any case be artificial (Barry and Maslin 2016). And so we embrace the complexity and liminality of transdisciplinary work. Poetically speaking, an open-ended dialogue also speaks to the transversality of the wind as a medium of mobility and communication. The wind attunes us to the heterogeneity and impermanence of the atmosphere with its variable temperatures potentiating the movement of air masses and suspended matters over long and short distances, with no definite end or outside. We write

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with an awareness of our own intra-relations within airs and winds, immersed within the atmosphere (which can never be known in its totality).

An unprecedented case in point occured during the co-writing of this dialogue over email, when the subject of Mediterranean winds transformed from theoretical exercise into a violent and overwhelming lived experience in Southwest Europe. Our email exchanges were put on hold on October 29, 2024, when news broke of the historical flash floods in Valencia and surrounding areas, where Jorge is based. It is believed that record high sea temperatures led to extreme levels of water evaporation and increased wind speed during the storms, causing torrential rains, flash floods and destruction of floodable areas (Figure 1). Jorge responded to queries from local and national news media as an expert source during the ensuing weeks. We eventually resumed our dialogue with a heightened sense of the stakes involved and a newfound wariness towards the *levante* wind. Mediterranean winds can be romanticised, as per the opening quote. But their power to engulf means that they are also a cultural and climatological force to be reckoned with.

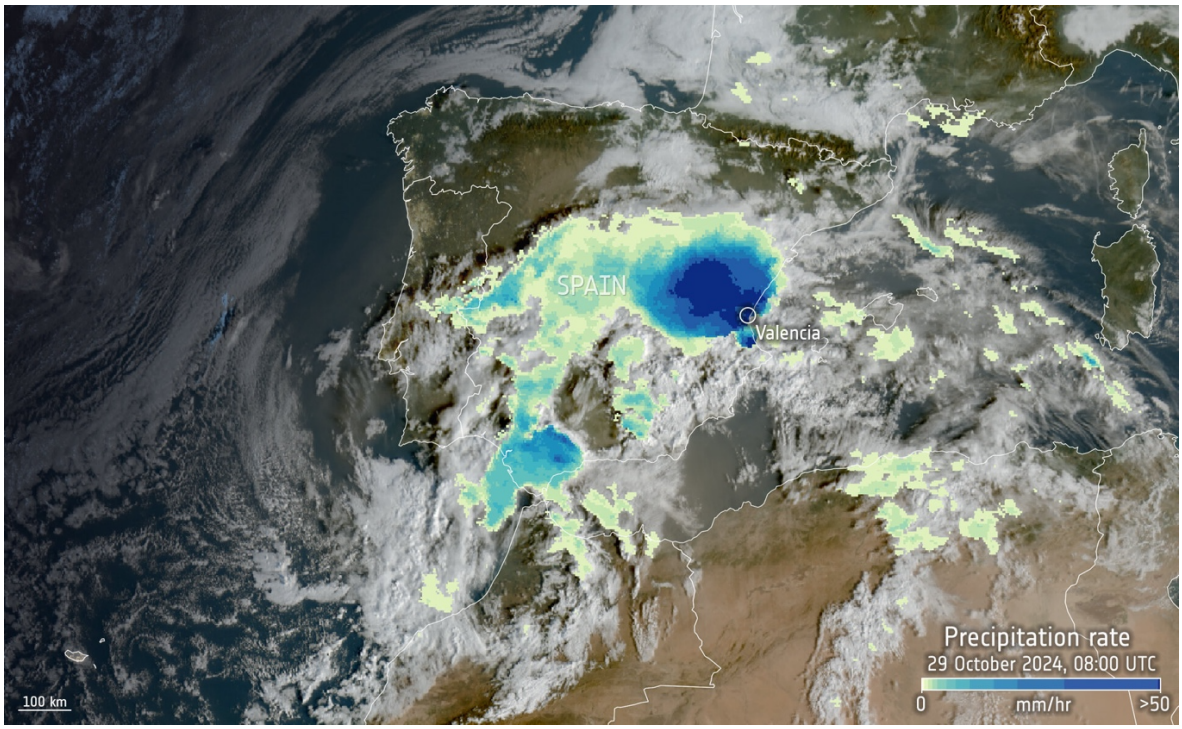


Figure 1. Precipitation rate map over Spain, October 29, 2024. Credit: Eumetsat 2024.

## Dialogue

**JO:** As we know, the Mediterranean region is a 'hotspot' of climate change worldwide, due to its peculiar geographical and marine conditions. The Mediterranean Sea stores a lot of energy, which is manifested when unstable atmospheric conditions develop (rain and wind) or when the night-time heat ('tropical nights') is maintained during the summer months. Ocean temperatures have increased in the last 30 years and this is provoking climatic instability and intensity. One only need remember the effects of the last DANA in Valencia.[1] The amount of water that fell in a short amount of time was a European record of 177 litres per metre squared just one hour (the previous record was 145). If the Mediterranean has been a geographical context where the wind and weather have played an important role throughout history, it is now in a climatic situation in which gales are expected to become more frequent and intense in the coming decades.

Historically, the wind has long had a strong cultural presence in the countries and regions of the Mediterranean. Its blowing has been linked to the development of historical events such as wars and also diseases. (There has moreover been a resurgence of interest in the relationships between diseases and climate, especially in the context of climate change.) The development of the Phoenicians as a martime civilization in the Levant region of the Mediterranean from around 800 BC can be largely attributed to the winds and their mastery of the cardinal directions in which air travels across oceans. They followed on from the so-called "Sea Peoples" of 1200 BC in the Late Bronze Age who migrated to the Near East. They were seafaring peoples who developed their life along the eastern coast of the Mediterranean and attacked the Egyptian empire.

The Middle Ages and modern times in the Mediterranean saw voyages between the two shores of the basin through maritime navigation favored by the winds. The contemporary age allowed the connection, for commercial purposes, of resource exploitation, between the north and the south of the Mediterranean basin. Fernand Braudel showed us a "Mediterranean" way of understanding the history of this region (1976, 1802; 1998, 348). The geographer Pierre Deffontaines highlighted the influence of the natural environment on the history of the populations of the Mediterranean in his masterful essay on the Mediterranean (1972, 220). For Orlando Ribeiro, "Mediterranean Europe" and "Atlantic Europe" are significant factors in shaping the culture of South and North Portugal respectively (1945). Lastly, Norwich (2008, 663) describes the Mediterranean as a

[1] DANA is an acronym for 'high-altitude isolated depression' in Spanish.

geographical “miracle” with a sea and climate like nowhere else on our planet that allowed the birth of three major civilizations.

All this shows that the cultural vision of the climatic elements is fundamental to understand the imprint that the features of the natural environment have left, and continue to leave, on the populations of this geographical space throughout history. Among them, the wind has arguably been the atmospheric element that has given the most character to the peoples of the Mediterranean basin, the one that has allowed the construction and destruction of civilizations, the one that has brought together different social and cultural realities, the one that has brought together ways and means of transforming territories. In short, the history of the populations on the shores of the Mediterranean Sea cannot be understood without the effect of the Mediterranean winds.

Figure 2. The palm tree, which has evolved to bend in the wind, is often planted as a windbreak or to create a cooling microclimate. The direction of its fronds tells us which way the wind is blowing.

**LS**: There is indeed a rich tapestry of cultural artefacts, systems of knowledge, and mobilities that testify to the Mediterranean and its winds as a unique and historical example of how societies *become with* weather over time. You referred to several accounts from the mid and late 1900s of how the natural environment and climates of the Mediterranean basin have had an ‘imprint’ on societies and ultimately the development of civilisations in this region. I think

this point is really important for our dialogue because it gets at the intersection between culture and climate. Although I am not sure if the word 'imprint' provides enough of a sense of complexity in conveying societal relations with weather and atmosphere over time and space.

It is important to consider relations with weather via multiple perspectives and spatiotemporal scales, not just thinking retrospectively about imprints or traces the weather has left behind, but focussing on present experiences and possible futures. So perhaps we could develop a more open conceptual framing to centre our dialogue on the ways in which cultures and climates intersect with relevance for contemporary and emerging contexts. In doing so, we might take inspiration from eco-feminist work on weather, identity, and power during these times of climate instability. Astrida Neimanis and Jennifer Hamilton, for instance, have put forward the concept of "weathering" to describe how the effects of climate chaos are disproportionately "weathered" across "socially, culturally, politically and materially differentiated bodies" (Neimanis and Hamilton 2018, 80-81).

Weathering is not just something that happens to bodies; it is also a practice of sensing and adapting (Hamilton and Neimanis 2018). In other words, bodies are not passive in receiving weather but they are agents that engage in weathering. We can think about agential weathering on local and bodily spatiotemporal scales, as a way of being and becoming in the world. Encounters with weather are mediated by atmospheric forces, individual agencies, mobilities, urban architecture, ventilation, weather reporting, and daily rituals (see Figure 2). So we could say that climates and cultures co-emerge or compose one another through complex and multi-directional accumulations of social and material forces. Meanwhile, climate change testifies to human influence on weather across a much larger scale whereby an accumulation of anthroogenic pollution is destablising planetary boundaries past tipping points. In other words, late industrial societies are implicated – to varying degrees – in producing not only weather stories but also reinscribing the material and energetic qualities of the Earth's entire atmosphere.

Inspired by feminist weathering, we might then think less in terms of the imprints that are left behind and more in terms of co-emergence – a process of what might be called *becoming with wind*. This orientation I am suggesting is exploratory and epistemologically humble (see Haraway 1988), inviting broader and ongoing questions of subjectivity and futurity. Put simply, *becoming with* Mediterranean winds has an openness and uncertainty as to *who* will become *what* and *how*. As such, it presents an antithesis to legacies of climatic and environmental determinism emerging from the 18th and 19th Century European

philosophies on human nature. As we know, said theories were complicit in attempts to justify colonial projects by attributing the innate characteristics of local peoples (often perjorative) to elements of their environment including, of course, weather and climate, a prominent example being the portrayals of Africa and its peoples as an arid and dark continent (Meché 2022).

The practice of dialogue itself provides an open-ended means of exploring and expanding upon received understandings of the weather. We may question how bodies are weathered and how they also weather, what it means to become with Mediterranean winds, and how anthropogenic climate change is manifesting itself in the changing winds. Even the way in which we define wind is culturally-mediated and has varying connotations over space and time. A simplified definition of wind, adapted from the Oxford English Dictionary, is that wind is a perceptible natural movement of air and also a breathy bodily vessel-y relationship with air (Jackson and Fannin 2011, 438). Yet this definition is not fixed and if we start to explore the depth and breadth of definitions and etymological accounts then we will already start to have some precedents for thinking at the intersection of cultural and climatological realms.

**JO:** Yes, meteorologically speaking, wind is a current of air but the way in which wind is perceived is often steeped in local culture. The noun ‘wind’ derives from the Latin word “ventus” which means “window” through which a flow of air enters. There are two aspects that stand out in the definition of wind: its permanence in the air, not on the ground, and the sense of freedom that is linked to the word wind. In fact, the term comes from the Proto-Indo-European root ‘we’ which means to blow and this from the Sanskrit ‘nirvana’ which represents the liberation of the human being from ignorance of earthly matters. In Greek *ἄνεμος* means wind and is the root of the name of the device used to measure wind speed (anemometer). But pneuma – *πνεῦμα* – is also used to refer to a faint, light movement of the wind, like human breathing. Added to this is the fact that the main winds were regarded as deities in their own mythological pantheon.

Local naming conventions for each breeze portray the complex ways in which weather is embedded in a sense of place and local environmental relations. In the Mediterranean, the winds are conventionally named after the cardinal point from which they come. And conversely, the name of a wind can also designate a geographical feature (cape, mountain) that is frequently hit by its blow. Just as humans have attributed names and powers to the wind, the wind itself is also language, a vehicle for communication or lack of

communication, depending on its strength, its persistence. The sounds transmitted by the wind have allowed societies to know about natural disasters and invasions along the coasts of the Mediterranean, with the simple blow of a conch shell and the resulting sound transmitted thanks to the Mediterranean breezes. As you mentioned, weathering is not just something that happens to bodies. It is a plethora of practices.

**LS:** The etymological overview you provide certainly highlights a sensitivity towards winds (plural) as manifestations of the wind (singular), which in turn is co-extensive with the entire atmosphere. When I am walking by the sea, if I am going headfirst into the wind, I feel as though the atmosphere has suddenly become palpable. My senses are engulfed and I try to imagine swirls of gaseous exchange, pollination and mineral fertilisation: a respiratory metabolism on a planetary scale. As you started to mention, there are many examples of orientations towards wind premised on a state of multi-directional relationality and reciprocity with a greater whole. Belief systems or practical philosophies abound. In local contexts, cultural narratives are passed down through generations about this or that wind portending or signifying something. The *tramontana* for example, is named thus because it blows across the mountains and, as Gabriel García Márquez remarks in his short story set in Cadaqués, Catalonia, was believed to bring with it the seeds of madness (1994).

There's also a way of thinking about or rather with wind that I would like to weave into our discussion, which has been put forth by Jerry Zee, an anthropologist who investigates the political ecologies of dust storms in China (2021). I think Zee's idea that wind can be experienced as a form of *relationality* could help us to think with Mediterranean winds, and this relates to the communicative capacities of the wind that you mention. Specifically, Zee refers to how wind can become a performance of geopolitical relations where polluted airs or extreme weather events cross over national borders (2017). We see this in the case of transborder pollution across the Mediterranean where people downwind often point fingers at the Other (see Hecht 2019 on the Harmattan). Zee's attentiveness to dust storms in Asia highlights the possibility to think about that relationality of being *upwind* or *downwind* as a way of perceiving not just air and what it displaces (dust, pollutants, radioactive particles) but also how social relations co-emerge with weather patterns.

**JO**: Indeed, wind is a climatic factor that links territories and societies. The key is its nature as a mobile fluid, a fluid that can move across land and sea. And with this movement, the physical (temperature, humidity) and chemical characteristics of the air move. Wind is

fundamental in shaping the daily weather. And if it blows regularly over a territory, it becomes a significant element of the climatic variety of that territory. In its movement, wind diffuses, from a territorial point of view, the positive or negative qualities that it may have. It moves particles that can be fertilisers for the territory (loess, Saharan dust) or that can seriously affect vegetation (acid rain) or human health itself (atmospheric pollution). There is no geographical space on the planet that is not affected by one type of wind or another. They can be global winds (trade winds, westerly winds in mid-latitudes), regional winds (foehn, chinook, mistral, bora, etc.) or local winds (breeze).

At all times, the air, at one point or another in the world, is in motion. And even when the wind is calm, it constitutes a unique, momentary feature of the weather in a territory. The movement of the wind transfers temperatures and transfers the character that it imprints on the daily experience of a geographic space to other distant territories. The French climatologist, Pierre Pédelaborde (1957, 539; 1959, 150) pointed out that the climate as a set of daily times experienced during a period of time is "what is perceived and experienced by the human being". That is, there is a human, sensorial, perceptive component in the wind. When the wind, due to its frequency of appearance, confers its own characteristics on the climate of a territory, it momentarily transfers those characteristics to other territories in its movement.

**LS**: I like the idea that air can be perceived and experienced as an energetically charged fluid somewhere between upwind and downwind, always in transition. For a non-scientist like myself it prompts a shift in perception towards what political ecologist Timothy Choy calls "substantiating" air (2011), a sentiment that is palpable in our opening quote to this chapter. To substantiate air is to become aware of its material and affective properties as a medium within which we are irrevocably immersed (Horn 2018). The notion of a liquid or fluid atmosphere makes air and its qualities seem more tangible (Engelmann 2019). Sensing oneself in the thickness of air's fluidity or rather by way of wind attunes us to this state of immersion and reciprocity. Indeed, Timothy Ingold has suggested that in addition to being

'embodied' we might also talk about being 'enwinded' (2010).

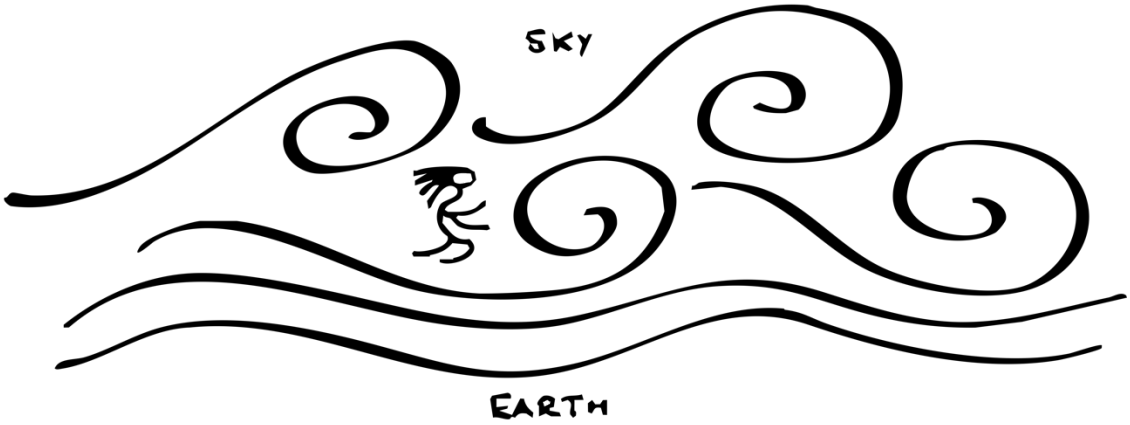


Figure 3. Bodies, earth, and sky are co-emergent processes. Source: digitally-enhanced detail from a diagram by anthropologist Tim Ingold (2007, S35).

I am reminded of an illustration by the anthropologist (Figure 3) showing a windswept body nestled among contours of fluid air. Here Ingold is referring to the way that our bodies process air through breathing but also how the atmosphere acts upon us, permeating our corporeal-phenomenological experiences. Wind emplaces bodies in atmosphere while also connecting us with far off places and a sense of expansiveness. Earlier you referred to the tradition of naming Mediterranean winds after their origins but then also conferring these names to topological features created by these winds. Over there becomes here. Wind is indeed an orienteering element that can be read and harnessed. As we have seen, grassroots stories about the wind are fundamental to orientation techniques and cultural identities, especially in Mediterranean regions. One of the most famous orientation techniques or systems that we might talk about is the *rosa de los vientos*, or compass star.

**JO:** Yes indeed the current Mediterranean wind rose derives from the Romans, although it was preceded by the one used in the Greek thalassocracy, each of whose eight main winds was represented in the bas-relief that crowns the corresponding wall of the octagonal Tower of the Winds, in Athens (see Table 1). Of the names of these winds (Boreas, N; Kaikias, NE; Apeliotes, E; Euros, SE; Notos, S; Lios, SW; Cefiro, W; Esquiron, NW) some names have passed into Spanish and endure as cultured words, for poetic use; cases of boreas, euro, noto, zephyr and aquilon. As indicated, the terminology of the compass rose is Latin (tramontana, gregal, siroco, áfrico, africana or ábrego, mistral), with some later Arabic incorporation

(lebeche, from labaȳ, southwest, between west and ábrego; indistinctly, garbino, from garbī, western). The names of the winds bear the names of the regions where these winds blow regularly, based on the Romans' belief that the island of Crete represented a central position in the Mediterranean basin. Throughout the Mediterranean coastal strip, there are also unique names for winds in each country, region or locality with much linguistic variation.

| Dir. | Aristotle's *Meteorologica,* Book II. ~340 BC | Dir. | Pliny the Elder's *Natural History,* Book II, AD 77 | Dir. | Mediterr anean rose of the winds (nautical), current system |
|---|---|---|---|---|---|
| 0° | Boreas (*βορέας*) ó Aparctias (*ἀπαρκτίας*) | 0º | Septentrión (*Septentrio*) | 0º | Tramontama |
| 30º | Meses (*μέσης*) | 45º | Aquilón (*Aquilo*) | 45º | Gregal |
| 60º | Caicias (*καικίας*) o Hellespontios | | | | |
| 90° | Apeliotes (*ἀπηλιώτης*) | 90º | Subsolano (*Subsolanus*) | 90º | Levante |
| 120º | Eurus (*εὖρος*) ó Euronotus (*εὐρόνοτος*) | 135º | Vulturno (*Vulturnus*) | 135º | Siroco o Xaloc |
| 150º | Fenicias (φοίνισα) | | | | |
| 180° | Noto (*νότο*) | 180º | Austro (*Auster*) | 180º | Mediodía |
| 210º | M | 225º | Ábrego (*Africus*) | 225º | Lebeche |
| 240º | Lips (*λίψ*) | | | | |
| 270° | Zephyrus (*ζέφυρος*) | 270º | Favonio (*Favonius*) | 270º | Poniente |
| 300º | Argestes (*ἀργέστης*) | 315º | Coro (*Corus*) | 315º | Mistral |
| 330º | Thrascias (*θρασκίας*) | | | | |

Table 1. Names of the winds of the Mediterranean compass rose (Aristotle, Pliny the Elder and current / nautical). Source: own elaboration.

The sea breeze has allowed coastal navigation on the Mediterranean coast since ancient times. A theoretical explanation for the occurrence of sea breezes and land breezes occurred at the beginning of the 20th century, with the appearance of the first theorem by W. Bjerknes according to which, "if the pressure and temperature gradients have different directions, energy is created that forces the air to circulate in the direction that leads from the end of the pressure gradient vector to the temperature gradient vector, by the shortest path" (Thorpe, A. et al. 2003; Olcina and Azorín 2006). During the day, on islands and coasts, their surface is at a higher temperature than the sea, so the air in contact with them heats up and expands, losing density and rising, causing a relative vacuum that attracts the sea breeze, marinade or wind. However, at night the opposite occurs and the terral or land breeze blows (Figure 4).

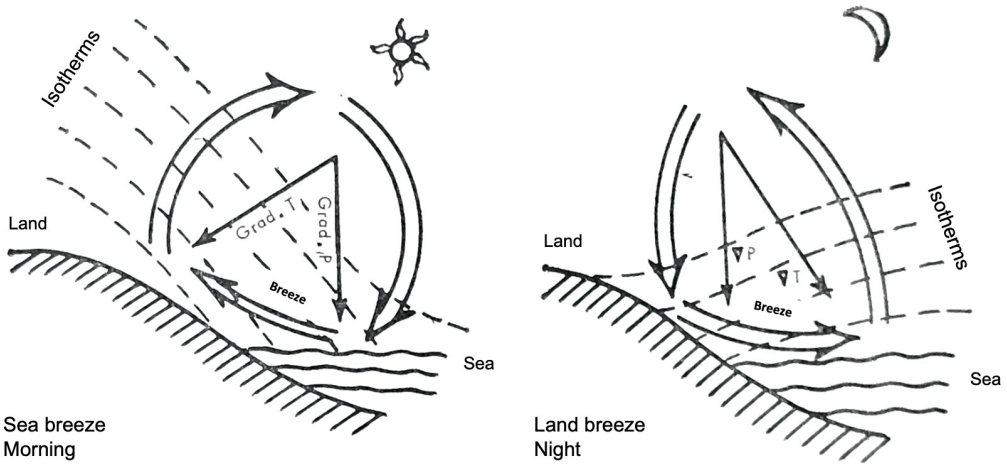


Figure 4. Sea breeze meteorological scheme. Adapted from Medina (1976, 320).

**LS**: It is interesting to think about how a longstanding system such as the compass rose varies over places and times. Ultimately, it goes to show that knowledge of the winds arises in local contexts according to situational needs and desires, including coastal navigation. The societal and economic perspective on Mediterranean history does not only enrich scientific perspectives on weather patterns. The two perspectives are fundamentally intertwined. Moreover, the scientific knowledge is not purified of politics but is itself a mechanism of power. You describe how the Romans developed the original compass to navigate and command what they called their sea (*Mare Nostrum* or *Nostrum Mare*). Knowledge of the winds shifted the balance of power. Winds were harnessed for expeditions and trade,

becoming known as trade winds. Today, we still see an entanglement of wind with geopolitical visions, returning to Zee's notion of downwind–upwind relations.

I am convinced that cultural understandings of climate, and conversely climatological understandings of culture, are essential to confronting ongoing inequities and environmental concerns in the Western Mediterranean. Matters of environmental monitoring and spatial governance are matters of justice here, from the disproportionate impact of climate change and air pollution on populations in tandem with unjust resource extraction in neo- or post-colonial territories. In a long history of extracting and exporting fuels and mineral resources from Africa to Europe, we now discern echoes of this history emerging in wind projects. Aeolian infrastructure installed in overseas territories is now projected to support EU regulations and economies in their 'circular' green transition, with subsea cables sending clean energy back to Europe rather than redistributing benefits locally (Haag 2022; Alkhalili et al., 2023). Innovations that might be taken for progress can become agents of colonial continuity in the space of the Mediterranean if they perpetuate accounts of African landscapes that still "rest solely on their exploitability" (Meché 2022, 67).

As sociologist Iain Chambers puts it, formerly colonized lands are at risk of being "transformed into a virtual space by EU legislation" (2008, 6), with the Mediterranean designating a mutable border of (in)convenience between North Africa and parts of Europe. A refusal of rights and resources can also be seen in the contemporary restriction of mobilities into Fortress Europe. In this instance, EU borders become harder, recoiling inwards. Rights and resources are refused to 'outsiders' through anti-immigration mechanisms, surveillance techniques, and dehumanising narratives about the Other, producing what might be called a "climate" of hostility and racialisation (Sharpe 2016, 15). The Mediterranean is thus transformed into a "zone of transmission" (İşleyen and El Qadim, 2023: 5) with the winds from the South featuring as a charged element of potentiation or contention for those who attempt the crossing in what are already harsh conditions (Sabin 2024, 99).

**JO**: A reminder of injustice certainly persists in the arrival of migrants into Europe who sail in fragile vessels that are frequently converted into mortuary boxes. Often there is a sense that no one is paying attention to this injustice, with the media using metaphorical language to dramatize the border transgression of these criminalised voyageurs without any mind to the humanitarian atrocity. What comes from the South, sometimes dragged along by sea breezes, has become a notorious problem for the European 'north' of the Mediterranean basin in more ways than one. Subsequently, certain winds in the Mediterranean basin can be perceived as a

nuisance by association, especially where I live in southeast Spain. For example, during each Saharan dust "intrusion" our "national and regional weather reporting becomes loaded with commentary on reduced air quality attributed to the influx of particulate matter, the origins and otherness of which are continuously reinscribed" (Sabin and Olcina Cantos 2023, 1037).

If we are talking about the Southern winds, coming from North Africa (lebeches, siroccos), they can indeed cause heatwaves and dust storms which are particularly harmful for vulnerable populations, but that is no reason to play the blame game. Here in Alicante, the arrival of dust on Mediterranean winds leaves a residue on cars and streets, which local people often find irritating but the dust also plays an important ecological role as a natural fertiliser. There was also a case a few years ago when scientists discovered radioactive particles were blowing across Europe. Scientists dated the particles back to French nuclear test sites from the 1960s (ACRO 2021). People were suddenly concerned about health impacts even though, as you write in our previous dialogue, exposure would be more acute for generations who live further upwind, nearer to the source (Sabin and Olcina Cantos 2023, 1049).

As you mentioned earlier, *matters of environmental monitoring and spatial governance are matters of justice here.* We could say that the political and cultural formation of Europe across the last half century has emerged in parallel with a certain regard towards the Mediterranean in the atmospheric sciences. The preceding paradigm of the 'Atlantic outlook' was based on weather front theories from the early 1900s but the focus shifted towards the Mediterranean as studies began to validate a significant impact on European airspace from this other direction. Recent investiment in and implementation of meteorological surveillance networks and organisations in Europe testify to an increased interest in North African atmospheric dynamics as important processes in European meteorology, especially with climate change projections indicating "the growing influence of subtropical subsidence in European synoptic space" (Sabin and Olcina Cantos 2023, 238).

**LS**: The 'European outlook' in meteorology that you mentioned reflects what cultural historian Jody Berland has described as a "militarization of meteorological language" (1994, 102; Sabin 2024, 99). Berland is referring to the weather front theories you mention which coincided in Europe with World War One (Figure 5). Arguably, we see a persistence of geopoliticised fronts or frontiers in contemporary weather stories in which (certain) Mediterranean winds are portrayed as intrusions while the Mediterranean itself is painted as a zone of transmission. This then leads me to wonder how we might rethink Mediterranean

winds as atmospheric forms of relation from a decolonial feminist perspective of weathering. Perhaps, just as we may adopt a "critical humility" towards Eurocentric borders, so too might we view European meteorology with "a less rigid, more open comprehension of the making of a multiple Mediterranean" (Chambers 2008, 3). Fronts might be perceived more as interfacial zones where the fluid movements of air are exchanges and downwind-upwind relations, rather than presumed conflicts that serve to separate one territory from another.

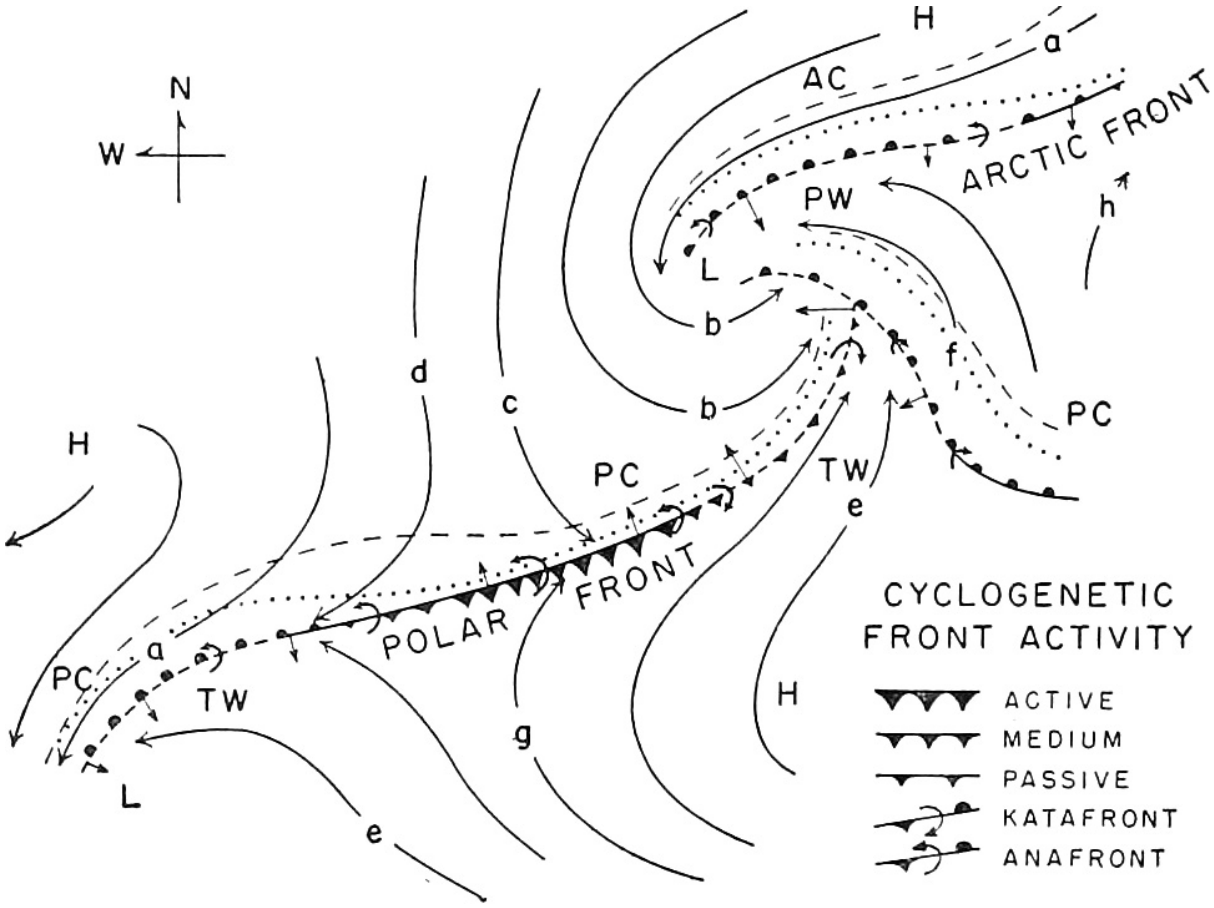


Figure 5. Frontal activity and passivity according to Bergeron and Bjerknes (Bundgaard 1951, 772).

As I mentioned earlier, an intentional dialogue across disciplines could be a vehicle for aspiring towards uncertainty, plurality of perspective, complexity, and critical humility in our studies of weather. I have been thinking furthermore that these conversations across disciplines can become a way to hold us and our disciplinary perspectives to account. I mean this as an ethical practice, which ties in with broader concerns about ensuring a just transition towards renewable energy sources and transoceanic relations, but also more generally the need for a social understanding of climate change or climate justice. We often hear climate change described as a 'wicked' problem due to its complex and interconnected social,

political, and environmental dimensions. Any attempts to address it are therefore partial and benefit from a transdisciplinary, polyvocal, and humble approaches. Added to this, dominant cultural and climatological narratives of weather must be regarded critically and transversally, that is, from multiple perspectives beyond dominant narratives (see Figure 6).

The transversality and processual nature of the wind might be best expressed through creative and transdisciplinary epistemologies, perhaps inspiring a multilogue of localised and alternate forms of knowledge. In this vein, we prefaced our dialogue with a speculative vignette of "becoming-open" (Choy and Zee 2015) to the winds of the Mediterranean from *the nonsensical middle of a rosa de los vientos… Arms outstretch, fingertips comb the sea breeze*, *in a gesture of becoming-open to the ever-changing conditions of immersion: air–wind–algae–dust–breath.* For when we are talking about Mediterranean winds, we are talking about a window (*ventus*) onto planetary breathing (Gumbs 2021, 21). We sense the wind on our cheek or across our entire bodies as a palpable manifestation of this breath, sustaining and interconnecting lives through respiration, but also potentiating the flow of pollinators, airborne minerals that enrich soils, and anthropogenic particles that invade bodies.

Figure 6. Alternative satellite image of the Western Mediterranean basin with south at the top. Source: Google Earth, December 27, 2024.

## Final reflections

In this dialogue, we explored the topic of becoming with wind in the Western Mediterranean as a significant regional factor in the co-emergence of cultures and climates. We referenced the unprecedented context of writing both before and after the DANA event that occurred in October-November 2024 in southeast Spain, which fragmented the linearity of this dialogue and led to a palimpsestic writing process resembling the sweeping transversality of the wind. Jorge thus drew attention to the Mediterranean as a hotspot for climate chaos, situating this climatic development within a broader history of Mediterranean peoples whose lives have been strongly influenced by their relations with winds. Lucy built on these observations by offering a framing of *becoming with wind* which she posited as an antithesis to climate determinism, aligned conceptually and ethically with the feminist theory and practice of weathering. The notion of becoming with wind was then imbued with tangible and material force in Jorge's description of wind as a continuous, fluid movement of air that shapes and emerges from elemental interfaces across land and sea.

Lucy responded to the scientific framework of wind having fluid dynamics with a phenomenological account of being and becoming in wind, with air as the amniotic fluid of the everyday. She argued that imagining the atmosphere as a fluid helps to substantiate air. The wind, in turn, substantiates our presence within it. We both commented on the ways in which the wind serves as an orientational device. Jorge gave an overview of how each breeze, depending on its direction, can be interpreted with the compass rose, which he compared to previous systems for reading the winds. Lucy continued that knowledge of the winds, including the compass and trade winds, does not derive from politically neutral circumstances but is characteristic of power relations across continents, persisting in contemporary perceptions of the Mediterranean as a zone of transmission, which both authors criticised. In sum, our transdisciplinary dialogue presents a means of holding one another to account, of remaining open and sensitive to shifting cultural-climatological conditions, informed by the wind itself as a window onto past, present, and future worlds.

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