

---

# SOIL

19 January 2019

---

## THE FIRST DROP OF RAIN

The moment the first drops of rain strike a dry soil surface and wetting begins, the activity of microorganisms in the soil peaks. They wake when they see water – and the smell they release is that fragrance. Geosmin. Petrichor. What we call the scent of earth is in fact the cry of joy of billions of living creatures.

"The way you treat the soil, it treats you the same way, friends. When you treat it negatively, even unconsciously, it gives you nothing in return, it treats you negatively."

Soil is not an inert substrate – it is a living system, an organism with memory. It harbours billions of microorganisms in every gram, and these living things are far older, far more resilient than human beings. Commercial nitrogen fertilisers produce nitrogen oxides – a greenhouse gas 300 times more powerful than carbon dioxide. Repeated chemical fertiliser use accumulates salt compounds, lowering soil's water-retention capacity. Excessive irrigation dissolves soil nutrients, causing salinisation problems – exactly what is happening in the GAP region. Soil returns what is done to it: cared for, it becomes fertile; neglected, it becomes barren. This is not a metaphor but a biochemical reality. The human-soil relationship is the microcosm of all ecological relations.

A voice with over fifteen years of experience leading the Istanbul branch of the Chamber of Agricultural Engineers recounts a journey from ordinary citizen to trade union representative, to union management, to platform coordinator. This path was entered after witnessing how science is manipulated – after noticing that the tiniest things are flashily polished while certain truths are set aside. The anti-GMO platform has been an ongoing struggle since 2004 – militant resistance against corporate seed control. The platform against water commodification was founded after the 2009 World Water Forum, but the convergence of organisations with different funding sources and motivations made fragility inevitable. Farmer organisation is a prerequisite of agricultural emancipation in Turkey – but cooperatisation must address structural inequality and must not become an institutional façade.

The figures are painful: in the last fifteen to sixteen years, Turkish farmers have abandoned 32 million hectares of agricultural land – an area larger than Belgium. This is not only loss of land; every abandoned field carries away knowledge accumulated over generations. Yet Turkey has 40 million hectares of rain-fed arable land – an area the size of the Netherlands, holding food security potential but unused. Agricultural prices are set on global commodity markets: Chinese cotton undercuts Turkish cotton, the farm becomes unprofitable, the young population rejects the countryside – both from economic necessity and cultural drift. The chemical agriculture "revolution" of the 1960s promised yield increases – farmers became dependent on inputs they could not afford, and soil degradation deepened the dependency. Activists must choose what they fight – energy, water, seeds. Dispersing in all directions leads to platform fatigue and collapse – when political conditions change, that collapse accelerates.

Long-term organising requires emotional resilience and material security; without these even the best intentions dissolve.

---

## THERE IS NO ECOLOGY WITHOUT LABOUR

Research in ecological agriculture examines production but ignores labour conditions. If organic, sustainable production has meaning in a region while worker exploitation is rising, that sustainability is hollow – even deceptive.

Pesticide exposure directly affects workers' health, but the heaviest burden of that exposure is borne by workers in the lowest income bracket, the least protected. Labour justice is an ecological matter – and ecology is incomplete without labour justice.

"Why are seasonal agricultural workers from Cizre, Şırnak? Why there? Political-economic geography determines where ecological problems will emerge and become visible."

A sociologist born in Istanbul (2006, Istanbul University Sociology), who completed a master's at Boğaziçi Atatürk Institute, conducted extensive fieldwork from 2009 to 2015 in Adana, Mersin, Manisa, Bursa and Cizre – now in a joint doctorate at Boğaziçi and Paris 8 – works on rural transformation and migrant labour. Methodological reflexivity: political-economic geography determines where ecological problems will emerge and become visible.

Since the 1990s, rural transformation has unfolded at three levels: seasonal agricultural worker profiles have changed – from small farmers supplementing income to entirely landless, entirely vulnerable workers; producers have been transformed – they can no longer produce as they did under new conditions; the spatial geography has shifted – labour has been moved to different regions, different conditions. In agricultural labour there is an ethnic hierarchy: Turkish workers receive the highest wages, Kurdish workers middling – some rendered landless by the forced displacement of the 1990s –, Syrian refugees work for the lowest wages, sometimes none at all.

This is not coincidental but structural – the product of Turkish state policies (assimilation, land confiscation) and global refugee crises. Geo-spatial mapping of labour patterns and migration flows is carried out with QGIS. The concept of "rural ghetto" emerges – permanent tent settlements in Adana-Mersin for Syrian and displaced Kurdish populations. These are not temporary seasonal camps; they create trapped, exitless communities, people living there year-round. The Seasonal Worker Migration Communication Network has met twice a year since 2010 – researchers, activists and civil society workers from different disciplines.

The Rural Research Network and Migration Networks (Institute for Anatolian Studies) are newly founded. Child labour, gender wage gaps, dispossession – the vulnerability created by landlessness – these are the realities that ecological agriculture research ignores.

Ecology cannot be understood without labour, labour without ecology – these are not separate struggles.

The question remains open: how can we understand ecology without understanding labour?

## THE TRUST RELATION

A music teacher who rejected state or private sector employment, whose environmental consciousness was shaped by the hydroelectric resistance movement and the Alakır Valley experience – a journey evolved from a permaculture course to food community work. Kadıköy Cooperative: establishes a direct producer-consumer relationship. Not only environmental sustainability but relational justice is upheld – working conditions, refugee employment, gender dynamics in agricultural households are regularly monitored and evaluated. Ekorita: an interactive ecological map combining ecological spaces, forums, news and recommendations – an answer to information fragmentation. Zero Waste Platform: rejection of waste at the point of production, beyond recycling – consumption transformation, not merely waste management.

"There are many intentions but we are a little stagnant at the moment in the active part."

Food communities and cooperatives operate through horizontal organisation – consensus-based decision-making, no hierarchy, equal participation, transparency. Monthly physical meetings (Kadıköy shop) create solidarity, reduce carbon footprint, establish trust relations. Small-scale, distributed networks are more resilient and politically more meaningful than centralised NGOs. The trust relation – not a contract, but a face-to-face relationship – is the foundation of the alternative economy.

But volunteer burnout is real. Scaling up without compromising principles is difficult. The Ekorita project is currently stagnant due to resource constraints. Intentions are many, sustainable action is scarce – this is not only an individual but a structural problem. Volunteer-based sustainability is a structural weakness: people burn out, projects stop, restarting becomes a little harder each time. Without material conditions – time, space, income security – the ideal of horizontal organisation remains in the air.

The journey from music teaching to permaculture, from hydroelectric resistance to food cooperative, is the story of how individual transformation can evolve into social organisation. Meeting once a month in a shop in Kadıköy – such a simple act, carrying such deep meaning.

---

## THE GREATEST MICROBES

Born in Ordu – raised within the ecological richness of the Black Sea – settling in Ankara for university was an experience of displacement. This experience is the starting point of a soil art practice.

A master's research on soil art in Turkey in 2014, scientific illustration training, a doctorate on body-nature dialogue. Pelisiyar Contemporary Art Initiative (2013): interventions in abandoned and ecologically transformed historic spaces – the space itself becomes material and message. "The Greatest Microbes" – an ongoing performance/street art project. Inspired by a metaphor from a Chinese author: if microbes had hands and spray paint, they would write "The Greatest Microbes" everywhere. More than 350 locations in Paris, spreading to Istanbul, Ankara, Konya. Microbes are the ultimate survivors – they continue to live even after nuclear devastation.

We are transient, they are permanent.

"Even if humanity ceases to exist on this planet we inhabit, they will continue to live."

An evolution from seeing nature and art as separate, to understanding that art history has included land art (since the 1960s), to scientific illustration deepening the flora of Turkey, to performance becoming bodily ecology. The body is not an observer standing outside the landscape but a biological part of it. Most artists concerned with ecology do not deeply feel natural processes – one must approach with a farmer's perception: continuous observation, careful analysis, deep emotional connection.

The D8M project: environmental restoration collaboration with bulldozer operators in Istanbul – transforming the machine's destructive power into restorative power. Research on garden and landscape culture in Paris, academic teaching (in Konya, away from Ankara). Moving into action – a transition from hope-based activism to movement-based activism. One does not hope, one moves. Movements – not singular but plural, not linear but dynamic, not linear – continue. People speak of space colonisation, of farming on Mars – but even if humanity were to disappear from this planet, microbes would continue to live. Human exceptionalism may be the greatest obstacle to ecological thinking.

---

## PRODUCERS' MARKETS

A designer who graduated in architecture from Yıldız University, did a master's in digital tectonics (IaaC, Barcelona), teaches at Bilgi University and researches digital production methods at İTÜ – a design researcher focused on craft, tools, and learning through making. The Menderes Basin agricultural markets (Ödemiş, Tire, Nazilli, Karacasu) were examined as part of research for the 4th Design Biennial – together with Göher Gürcan Tan (architect, market researcher) and Tangör Tan (agricultural engineer, gastronome). Production-consumption networks constitute urban-rural relations – understanding these networks means understanding the food system.

Mapped in the 2017–2018 fieldwork: seasonal change and social function of producers' markets, supply chains, market stall aesthetics – coloured tarpaulins and coverings signalling product type –, producer profiles, intergenerational knowledge, infrastructure, profit margins.

Vildan Teyze in Tire: a 40-hour labour cycle — garden preparation, market setup, sales — for minimal profit margins. These 40 hours expose the hidden labour behind the discourse of "local food." How deep is our consciousness as consumers of local and organic food? The distance between the hand receiving the product and the hand that grew it is not only physical but epistemological. Neither a production-side nor a consumption-side analysis is sufficient — relational analysis is central. Markets are third spaces where producer skill (curatorship of abundance) meets the consumer's willingness to engage. Different scales reveal different relations: producer logic at field level is fundamentally different from market presentation.

Visual documentation on Instagram was deliberately used — to shift the conversation from "what is this?" to "where does it come from? do you know who grew it? under what conditions?" Coloured tarpaulins signal product type, seasonal variety reflects social function — the market is not merely a shopping place but a mechanism for knowledge exchange. The producer-consumer relation creates — or can create — a trust network beyond market logic.

## THE ARCHITECTURE OF SOIL

An architect born in Mardin, whose family extends to a thousand-year-old Qadiri Sufi tradition, who transitioned from madrasa education to formal schooling, and who grew up with his grandfather's agricultural knowledge and the landscape stewardship of the Sultan Şemus region (25 degrees against Mardin's 40; a rare green zone). Forced displacement during the Kurdish conflict of 1993 — the family moved from a rural village to urban Kızıltepe.

A witness to childhood friends becoming seasonal agricultural workers. A TÜBİTAK wind turbine acceleration project (secondary school), two patents on container housing, student activism, mathematics and chess competitions — a multifaceted mind. Now a doctorate on container housing design for seasonal agricultural workers in Sarıcakaya, Eskişehir — a micro-climate zone where Astragalus is cultivated — in collaboration with Istanbul Medipol University. A master's thesis on soil architecture and sustainable design. Analysing the spatial evolution of worker settlements between 2002 and 2017 with Google Earth — fifteen years of change, readable in satellite images. An earthen architecture proposal inspired by the malkaf (wind tower) passive cooling technique of the Harran house — mud brick, adobe, multi-layered systems using soil as the primary insulation material.

The master plan: shared cooking area, social spaces, permaculture integration — workers growing their own food (tomatoes, aubergines, peppers). Dignified housing, healthy living, organisational capacity — these are directly connected to architectural decisions.

"Local architecture — Mardin's spontaneously formed settlement patterns — carries ecological knowledge within it. Not inventing but multiplying; using soil as the primary insulation material; designing multi-layered systems."

Architecture is not separate from ecology. Housing design directly affects the dignity, health and organisational capacity of agricultural workers. Seasonal workers live in tents, barracks, containers — these spaces draw not only physical but social boundaries. A dignified living space is a prerequisite for organising.

The transition from hazelnut to kiwi — a transformation lived in Mardin — kiwi brought new harvest seasons, new recipes, new social practices, and changed the rhythms of community life. Has a kiwi culture formed? How long does culture take to form? When agricultural policy eliminates a crop, it also erases the culture and knowledge systems bound to that crop — the family economics of hazelnut picking, community rituals, seasonal order disappear. Crops are not economic units; they are cultural vectors, carriers of knowledge, embodied forms of social relations.

His grandfather's agricultural knowledge of the Sultan Şemus region — knowledge transmitted across generations, learned through living — was severed with the forced displacement of 1993. This severance is not only geographic but epistemological: when knowledge is displaced, like a seed torn from its soil, it dries up.

---

## THE ROMAN GARDEN AND SEEDS

A materials engineer who worked five years in media, who experienced an "awakening" after Gezi – particularly after learning permaculture – and chose to leave corporate work to move towards urban food production and self-sufficiency. The Roman Garden – the community garden in Cihangir – is a reclamation of public space against the municipality's attempt to convert it into a commercial café, proof that urban agriculture is possible.

The legal battle was won, but the subsequent complacency demonstrates the necessity of sustained engagement. Soap-making – transforming personal consumption into natural home production. Seed guardianship – multiplying and distributing local seeds, a newly begun practice. Food community organisation through Yeryüzü Derneği (Earth Association). The permaculture framework: how can we meet our needs with minimum harm to nature and how can we convert outputs into inputs?

For an urban dweller, disconnection from production is not destiny – consumption dependency can be reduced through material knowledge, direct production and sharing networks. Making soap, saving seeds, setting up a garden – these seem like small acts but each is a point of disconnection from the system. The Roman Garden won through legal struggle, then came complacency – a reminder of the necessity of sustained engagement. Winning is not enough; what is won must be protected.

"Food is very important. Our local production has dropped incredibly. What can we do locally?"

This question is the question guiding the entire meeting.

---

## THE BREATH OF SOIL

This is the ninth and final meeting of birbuçuk's Solunum programme. Over more than two years, a journey from water to biodiversity, from metabolism to boundaries, from climate to mining, from gender to energy, to soil has been completed. Every meeting brought people from different disciplines to the same table – no hierarchy, equal time, personal narrative, formal structurelessness.

The soil meeting is both summary and examination of this journey. Seven presentations – food community organiser, agricultural activist, labour sociologist, food cooperative founder, soil artist, architect-researcher, soil architect – have touched the same matter from different paths. And in free discussion these voices have mingled, complemented one another, sometimes contradicted. But the fundamental consensus that emerges is clear: soil is a living system, labour cannot be separated from ecology, trust relations are the foundation of the alternative economy, knowledge systems are erased together with crops and soil practices.

The depoliticisation of ecology – "For Nature" concerts, sustainability branding – conceals systemic causes. Discussing climate change while smoking a cigarette is to avoid making the personal-political connection. Design and sustainability are widely discussed in academia but rarely translated into practice. Conversely, activist and practitioner knowledge rarely reaches academic contexts. Three-hour meetings are insufficient for sustained organising – follow-up workshops, small working groups, documentation are needed.

Dominant tensions: between urgency and patience – the slowness of relationship-building while the climate crisis accelerates. Between systemic critique and gradual change – how to stay motivated? Between disciplinary knowledge fragmentation and the need for a common framework. Scale: individual actions are insufficient, structural change is necessary but seems impossible.

Most projects work at intermediate scales: not global policy, not individual consumption, but neighbourhood and regional networks – markets, communities, collaborative workshops. Change arises from accumulated small practices and local organising – not from top-down implementation. Ahmet's fifteen-year commitment to agricultural organising, Rana's more than four years of struggle with the Roman Garden, Deniz's multi-year

ethnographic immersion – these time scales require emotional resilience and material security that most people lack.

But soil teaches us something: when the first drop of rain falls on the dry surface, microorganisms awaken. The conditions do not need to be perfect for awakening – one drop is enough. Movement – not singular but plural, not linear but rhizomatic, not centred but distributed – takes place simultaneously through many practices, at different scales, in different geographies. The Solunum programme has itself been this practice: it has created unexpected continuities and relations, people from different disciplines have learned to ask the same questions in different languages, participants have realised they will continue working in overlapping fields. From the community garden to the producers' market, from the seasonal worker tent to soil architecture, from the world of microbes to the food cooperative – all are node points of the same network.

Documentation, publication and future workshop series have been proposed – social evenings, raki, conversation, reception. Written outputs – article, aesthetic object, book. Newsletter, participants' current work. This meeting is not an ending but a node point in an ongoing network.

Socio-economic metabolism – how we as communities organise our surroundings, input from outside, processing inside, output to outside. Unity of knowledge – not remaining bound to a single discipline, looking at the whole. Rhizome – decentralised, horizontally multiplying, networks that continue even if broken. These three concepts are the core of birbuçuk's Solunum programme and in the soil meeting they were tested one final time, in their most concrete form. Like soil: cyclical, living, awakening with the first drop even when it looks dry.