QUICKSILVER : CLOSED CIRCUIT CURRENCIES

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2023. ALONG THE ADRIATIC SEA

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Lat. salis is used in religion "to be saved" and for illness "to be cured"

1. FISH — ADRIATIC SEA — FISHING — HEAVY METALS

I encounter the territory of the Adriatic with heavy feelings. Recalling moments of my childhood and youth, observing how the environment and relationship to this environment have changed over time is what I find difficult to navigate. I migrated to Western Europe in hope for a new life, in hope for a place where I would be accepted and respected for what I value in life and the direction I wish to take. Croatia still suffers from the war that happened in the nineties.

Migration has been present in my family, and its underlying relationship to war, the search for a better future, is what I recall vividly in my mind through reflecting upon conversations over lunchtime. To give context, my mother's side of the family, my grandfather, originated from the far east side that was heavily affected by war. My grandparents separately migrated to France early in their lives and met in the small city of Clermont Ferrand, where my mother was born. After several years of hard working in French companies they decided to migrate back to Croatia, to the bordering city of my grandfathers' origins. When the war started, my mother had just started her studies in the capital. After realising that it may be time to leave the bordering city, my grandfather and grandmother decided to separately leave for the region, Istria, where my grandmother was from. I remember my grandfather's stories from his journeys as a bus driver, my grandmother's stories as a nurse in the hospital highly affected by war. They didn't pause their life because of the war, but they had to continue it elsewhere, my grandfather on continuous journeys either for military purposes or regular bus transfers in the territory of former Yugoslavia, and my grandmother as a caretaker in Italy. They built a new life. My mother decided to settle there after her studies in the capital, and after meeting my father. My father, originating from the southern coastal part of Croatia, lived a part of his youth in Germany, as his family hoped to find luck and prosperity outside of our home country. However, they have returned to Croatia, to Istria, to the city I was born in.
I remember my father saying to me when I was leaving, you can find happiness and satisfaction from life abroad, but you can never deny your true belonging, your true origins. I didn't believe him, yet I realise now, after migrating to Italy, how proximity of home, proximity of the landscapes I witnessed through my formative years, makes me feel grounded and at peace.

I find the heaviness every time I go back. Witnessing lack of change or change for the worse, where politics of war, national belonging are felt in the thick air that you can almost cut with the knife. Where being of certain nationality sometimes speaks before the person's own identity.
I find it difficult to belong here, that's why I chose to leave. I am aware this is not the solution.

I come from a prosperous land. However, I feel this land is dying due to the political situation, where survival sometimes compromises relationship to larger society, where nepotism compromises stability of democracy. This is what I question when I think of democracy. Having lived in countries where political and media influences speak of high level of migrants from other continents, I wonder how, potentially, will they ever be able to find their place in Croatian system that fails its own people.
This question arises in my mind as I witnessed their presence in recent trips back home, as "our" territory became a part of their settlement, not solely a place of transit. It is not unlikely to hear of another factory or branch of industry to close down. This us/them a rhetoric should be challenged - thinking "our" land in terms of property - a land is mine and you are simply a guest?[1]

In my city, we have recently faced closing of a century long shipyard, leading to thousands of

[1] Laura Lo Presti

people losing their jobs. It is also not uncommon to utilise these former industry as future touristic resorts, transforming and focusing economic stability solely on profits coming from tourism. This is why I question, as a nation with a long history of craftsmanship, eg. fishing, ship building, chemical industry etc., where can we position ourself in the framework of our country's policies. How does this direction transform with current environmental discourse? How can we even compete with our dying crafts and industry on the international market?

I spent a few days in November on the boat with my father. This moment has a special place in my heart, because I realised sometimes to get closer to others I need to abandon my own routine and enter theirs. Entering his space meant entering a fragment of his mind. I find it difficult to navigate unfamiliar situations, yet I force myself to do so because it leaves me with humbleness. We woke up at the same time, 4:30 am, got ready at our own pace and left the house to the nearby town where his boat is situated. The crew is simpler than what most people imagine, tow workers and my dad. I knew these people almost my whole life, and I felt at home, because I realised that even though they did not fully understand what it is I am seeking to find, they allowed me to enter their space, their conversations. I found simplicity of communication, simple sharing of feelings and knowledge. I had to dare to ask what I didn't know, and I realised how much of ingrained knowledge these men had.

I realised it takes a specific type of effort to do this job, to be in this routine and simple presence without distractions, to experience the time in the length of the fish net. The comments of disappointment when the net was empty or filled with seaweed, rocks, bycatch that doesn't sell. I rarely cry, but I reached a breaking point of breaking when after four hours the nets were more empty than full, meaning that no profit could be made, that the sea might be dying, the fish migrating, someone getting a bigger piece of the cake.

I learned how protective each of the fishermen were to their positions, their personal maps, because this specific geolocation was the place where they could catch the most, where fish that would feed their family and other people are most densely concentrated. Every boat is almost fighting the other. It felt like entering a new sphere of time, where your longterm observations, marking and knowing, being one with the sea was the only way to ensure your survival in the capitalistic model. Simply understating the other, the sea currents, seasons, sea bed constitution and migration patterns. My fathers knowledge differed from the one I encountered through scientific research, it is knowledge passed on to him by those generations of fishing in the area as well as adaptation to the change in the environment.

The relationship to fishing in these three men was different than what I imagined. On the one hand you need it so much, you treasure all the information and quantity about it, while on the other you forget it is a living being. Bycatch is thrown into the sea as an undesirable piece, as a t-shirt with holes that lost its value, but this bycatch may still be edible. I realise how capitalist market directs our relationship to consumption of food, of goods, and anything else that doesn't fulfil our standards is considered as undesired and non-relevant. This to me seems like a paradox as in the global shortage of fish and food in general, in an overfishing reality, the standards are rapidly increasing, instead of focusing the attention on what the nature has to offer and adapting to it.

My father adapts to the lack of fish by switching to another position of positioning nets, or changing their type in order to catch the other species. But the story of the standard stays the same. Different fish, different nets, different bycatch.

Fish migrates in the sea facing its left eye towards the shore. This means that when entering the Adriatic, it enters the sea following the Italian coastline, turns itself in the northern gulf and continues its travel downstream the Croatian coast. In a parallel to human migration, is astonishing to see how different are these two kinds of migration, one desired, the other scorned; one goes from richer countries to lesser, the other follows the reverse route.[2]

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[2]Laura Lo Presti

In the past my father would take long journeys following the migration line from north to south in order to make the most out of high concentrations of specific species that migrate at certain times. It was a journey of lurking for the precious silver bodies that would be sold in the closest port. I don't recall the specific moments of his absence when I was a child, or specific periods, but I recall his general absence from my life. This feeling is still here with me, and it is the motif I wish to explore by coming closer to his world. I understand now how time flows differently in his orbit and I understand the tired body and mind I often recall in a memory of him. I realise we are similar, we seek for concreteness in spaces of uncertainty and greater forces.

The Adriatic Sea is a basin or gulf of the Mediterranean Sea. A very narrow and semi-enclosed sea flowing in SE-NW direction. It is divided into 3 zones - northern, central and southern Adriatic. The sea is rather shallow, on the west coast of Istria the average depth is 30 m, while the deepest parts do not exceed 50 m in depth, while on the east coast, and in the southern parts of the northern Adriatic, the depth can reach almost 100 m. It is known as a very rich area due to large production of all trophic levels. The main reason is the extremely large influence of the river, especially the large Italian river Po. The consequences of the increased supply of nutrients by rivers can lead to marine blooms, and toxic marine blooms can also occur. As an end result, all of this can cause a decline in biodiversity in a certain area.[3]

Following trends of fish migration in the Northern Adriatic became more and more difficult. Looking at the overall statistics, the amount of registered fisherman in Croatia is following a positive trend, however it does not imply the positive development of this branch, as the amount of fish caught for personal needs falls under the same category as commercial. This implies that government-provided statistics can paint a picture of a country's development, while the reality is drastically different. Comparing the Croatian commercial fishing industry to other Mediterranean countries, especially neighbouring Italy shows lack of development on our side. Croatian boats are overpowered by technical and technological tools.

" (...) it is not uncommon for Italian trawlers to take advantage of the obsolescence of the commercial fishing fleet in Croatia in order to take the lead. In commercial fishing yields, due to the overfishing of the fish stock on the Italian side of the Adriatic, allied fishermen often fish in Croatian territory, mostly with trawlers, which have an unfavorable impact on the maintenance of sustainable development in the sea, and thus local fishermen are put in an unfavorable position" [4]

In the discussion I had with my father prior to starting my project, what drew my attention was specifically the use of trawlers. My father mentioned the difference he noticed while fishing near the sea border of Italy and Croatia. Trawlers use specific types of nets that catch everything that is present on the seabed (fish, crabs, shells, algae), as the net is being pulled on the seabed by the force of a ship. This type of fishing is lawfully limited due to the impoverishment of fish settlements and seabed.

He mentioned a significant difference in the look of nets when they are freshly pulled out of the sea. I witnessed the immense amount of algae, shells, rocks, basically undesirable, unusable catch on our trips close to Croatian coast. Near the border, the nets came much more clear, implying that the constitution of the seabed is already heavily impoverished. This is due to extreme use of this technique by Italian fishermen.

Even considering the existing regulations on use of these nets, it is important to note that small-scale fishing that is happening in the Croatian part of the Adriatic can be observed as more respectful to the environment itself, mostly due to lack of large fleets and underdevelopment. Therefore, a clear link between industrial, technological and technical development when it comes to commercial fishing can be drawn to industrial effect on the environment. This is where I question, is staying disadvantaged and closer to original craftsmanship a solution for a healthy environment?

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[3] (Alen Draščić; Seasonal dynamics of catches with gill nets along the coast of Istria; Zagreb, 2018.)

[4] (Alen Draščić; Seasonal dynamics of catches with gill nets along the coast of Istria; Zagreb, 2018.)

Witnessing emptier nets implies that fishing efforts from Croatian fishermen stand in contrast to smaller fish stock. A greater number of working months affected only a greater number of working days, while it had a much smaller effect on the amount of catch. The working months have decreased due to the suspension of fishing in the summer months and the shift to tourism. Such a trend is increasingly popular among fishermen who fish with gill nets. Which is another proof that the state of the fish stock is bad, for the reason that in the summer months the prices of fish increase twice as much as in other periods of the year[5]

I simply wonder, is there a future? The impact of nets on the seabed and non-target organisms sometimes overpowers the amount of profit made by fishing. While I stare at the rising sun on our trip, I question the efforts, my father, who has lived off sea his whole life, I feel is losing hope as well, and just as in the food chain, I can sense he feels like he is being eaten by the larger fish. I find my respect to keep going, to keep this craft going and I understand how much the approach to food we eat, to fish you catch on a small scale, transforms your view of food as a product, food as something separate from the environment. I recognise the feeling of alienation in the western world, where the environment is the other, it is outside our bodies, but we forget we are nurtured by it, and a relevant part of its homeostasis.

To clarify, I do not want to point fingers, I am aware of needs, progress and policies, histories, differences in the national territories I mention. Their proximity and border, their shared ownership of the body of water is what I approach for observing contrasting trends and behaviours that affect this massive flowing state. Furthermore, I question the labour that is put out in the maintenance of this type of industry, as clearly, it is getting more and more heavily affected by environmental changes. The instability of workers' position, their ability to sustain themselves and their families, is a motivation to keep adapting to the new reality, but where do these people draw a line, when do they question their efforts in comparison to large scale markets and industry indirectly managed by governments?

[5] (Alen Draščić; Seasonal dynamics of catches with gill nets along the coast of Istria; Zagreb, 2018.)

2. *AUTOIMMUNITY*

When science transfigures immunity in the 1880s and 1890s by equating it with defense, defense is acknowledged for the first time as a capacity of the living organism. This acknowledgment radically changes not just how we imagine our bodies as living organisms but also how we imagine what it means to be an organism living among other organisms and what it means to be a human living among other humans. Moreover, immunity's new incarnation emerges as the avatar of a scientific practice that profoundly transforms how we conceive and address both illness and healing. Indeed, immunity's acceptance as a robust biological concept fundamentally changes the embodiment of these essential human experiences."

I have approached the topic of autoimmunity through exploration of diseases and conditions qualifying under the adjective autoimmune. Autoimmune disease (AD) affects approximately 3% of the population. An autoimmune disease is a condition that results from malfunctioning of the [4] immune system, resulting in it targeting and working against healthy, functioning parts of the body as if they were foreign, undesirable organisms. It is estimated that there are more than 80 recognized autoimmune diseases, with recent scientific evidence suggesting the existence of potentially more than 100 distinct conditions in which nearly any body part can be involved.

each condition is a condition of the individual body, autoimmune diseases still stand in the muddy waters when it comes to our knowledge about how to treat them. Of course, certain conclusions and possible connecting points can be drawn from studies and long-term observation derived from different subjects. However, with significant array of symptoms and possibility of these conditions to be manifested in any part of the body, it is difficult to systematise them coherently and applicably for a vast range of subjects.

To give a short introduction to the discourse on autoimmune disorders, it is important to understand the language used to describe the immune system and its processes. The immune system is a complex network of organs, cells and proteins that *defends* the body against infection, whilst *protecting* the body's own cells. Among a vast array, its most important players are white blood cells, which travel through the whole body detecting undesirable particles/ organisms/ microbes that enter the body through its exposure to the environment.

There are two subtypes of immune systems present in the majority of species, innate and adaptive immune system. Immune system responds to the pathogens through employing several different methods, be it physical, chemical, biochemical barriers.

Being ill appears to be a de facto resistance to the established social order, to capitalist production and subsequently to the engendering of material relations between humans

Some of the most common diseases that are generally categorized as autoimmune include celiac disease, type 1 diabetes, Graves' disease, inflammatory bowel diseases (such as Crohn's disease and ulcerative colitis), multiple sclerosis, spot baldness, Addison's disease, pernicious anemia, psoriasis, rheumatoid arthritis, and systemic lupus erythematosus.

What draw me to this line of research was a personal quest in understanding functionality of a individual body, understanding why this individual physicality is acting out against itself, why and how is capitalist society becoming a fertiliser for these conditions. Furthermore, as

Immune system engages in layered defence, where immune memory is employed to first provide an immediate, but non-specific response to the presence of foreign body through the innate immune system. Only if the memory does not recall past defence mechanisms for specific type of pathogen, the innate immune system employs an adaptive immune system, which has the ability to recognise and tailor response to previously encountered molecules, while simultaneously updating our body's response to the new pathogen.

Here is where I find a fascinating link to our body's capabilities and technology/data

management. The body utilises its system to memorise, employ and come up with new solutions of solving potential problems. Sounds similar to machine learning and AI?

Abnormalities of the immune system can lead to allergic diseases, immunodeficiencies and autoimmune disorders, it is a condition resulting from malfunction of the adaptive immune system.[6]

The critical factor in studying the prevalence of autoimmune diseases is the availability of a systematic and unbiased source of data that are representative of the general population.
Collection of data through population-based studies is the most suitable method for obtaining prevalence data without ascertainment problems, though these studies require considerable resources, in fact they are often based on self reported data.

However, in the case of autoimmune diseases, which include rare diseases and diseases with considerable clinical heterogeneity and complex case definitions, the collection of data through self reporting involves a high probability of referral bias. The few studies performed on the general population are based on laboratory screening and consequently focus only on autoimmune diseases detectable through laboratory tests. [7]

This is where I would like to point out a relevant discourse when it comes to biological and scientific concepts of immunity. Natural law characterizes the regularities of the physical world. Invoking the juridical paradigm of paradigms ("the law") to describe organismic processes suggests that "our nature" enacts the same kind of rationality that underwrites our social systems of regulation. Therefore, by applying normative constraints to the systems of molecular and cellular activities, to our aliveness, which consists of natural law, it presumes that all of our life processes unfold systematically and noncontradictory to the logic inscribed in human reason.

On the one hand, nature's reasons correspond to human reason as it allows us to analyze it, which is a consecutive part of science. By structuring the world through a principle of order, judgment, and systematic behaviors, modern science presents the world as knowable and understandable in human terms, reducing it to predictable, measurable, and universal processes. This assumption redefines the perception of nature, its processes, and allows the law to define nature's order.

Our bodies follow natural law through many physiological mechanisms ensuring the overall homeostasis of the organism. When the concept of immunity migrates from politics to science and medicine in the 19th century, it is equated with defense, acknowledging it as a capacity of the living organism. This moment has drastically changed the way we perceive our biological body in relation to other living organisms, our relationship to illness, and the body's ability to naturally regulate itself.

The implementation of human logic and law through scientific analysis, standards, concepts, and methods has disallowed biological immunity to be observed as co-adaptation, coexistence with other organisms, and declared a constant fight against non-regulated, unpredictable others. Autoimmunity is a scientific and political paradox; it observes the organism's consecutive parts, its cells, as dangerous parts of the whole. Autoimmunity does not follow the laws; the regulated organism is deregulated by itself, applying the same laws that protect against violence from others on itself.

Through exploring several publicly available researches carried out on different autoimmune disorders, their presence in certain parts of the world, and analysis of provided data, it is determined that genetic predisposition as well

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[6] Wikipedia contributors. (2023, November 15). Immune system. In *Wikipedia, The Free Encyclopedia*. Retrieved 16:42, December 5, 2023,
from https://en.wikipedia.org/w/index.php?title=Immune_system&oldid=1185318421

[7] Wikipedia contributors. (2023, December 3). Autoimmune disease. In *Wikipedia, The Free Encyclopedia*. Retrieved 09:49, December 6, 2023,
from https://en.wikipedia.org/w/index.php?title=Autoimmune_disease&oldid=1188202382

as environmental assets heavily affect their prevalence in certain areas, and among certain people. Race, gender, nationality, lifestyle have an immense effect on the materialisation of certain conditions. However, what is important to note is that the amount of wealth does not necessarily imply a larger predisposition for any of the mentioned conditions. It is the disability to optimally adapt to the surroundings and the change in them. I would like to point out two scenarios that kept recurring.

Pollution in the environment due to industrial waste and failed monitoring in less developed areas is one of the relevant environmental factors working in favour of developing these conditions. On the contrary, developed areas are facing another issue, the hygiene hypothesis.

Hygiene hypothesis implies the lack of exposure of an individual's immune system to pathogens in the environment, due to increased focus on hygiene and cleanliness whose focus is to eliminate the unwanted, possibly dangerous organisms and compounds. The strive for cleanliness has led the bodies of developed world to turn towards themselves, their own cells, due to the lack of external dangers. This contrasting situations present agency in control of our surroundings, which is commonly embedded in policies and culture. Policies addressing the relationship between use of resources, industry and the environment as well as living standard is what plays a crucial role in determining possible development of these conditions. The ability to live in a relatively clean environment, consume food and water that do not contain pollutants comes with certain stability and prosperity.

Studies have shown that various immunological and autoimmune diseases are much less common in the developing world than the industrialized world and that immigrants to the industrialized world from the developing world increasingly develop immunological disorders in relation to the length of time since arrival in the industrialized world.

Simply, wealth in a developed world allows for more choices when it comes to food consumption, availability of medicine and clean living environment. By migrating from a less developed to an industrial area, our living and consumption habits change, often due to lack of accessibility products we were raised on. Socio-economical status either allows migrants to engage in the same patterns as their hosts, or they have to set for a lower standard of living, where quality of food and water as well as living conditions are compromised due to their migrant status. Therefore, hygiene hypothesis is much more than a personal strive for cleanliness, it is a struggle to maintain diversity in industrialised worlds where quantity and profit overpower quality, wellbeing, and equal access to all citizens.

Moving forwards, when it comes to observing environmental factors that play a role in developing autoimmune disorders, I have narrowed down my research on the line of effects of heavy metals on both environment, animals and humans.

3. *AUTOIMMUNITY - TOXICOLOGY - MIGRATION*

How food, consumption of food in regular food networks can lead to accumulation of heavy metals in people. Heavy metals as potential issue and cause of autoimmune disease .

Heavy metals find their way into the environment as industrial waste. They tend to accumulate in the aquatic environment because they cannot be degraded, their life span exceeds the life span of organic matter. The type of seabed is crucial when it comes to sedimentation of the hazardous metal, as fine, sand-like grounds are the ones that are the most suitable for its accumulation.

Heavy metals enter living organisms through water or food consumption. Metals bind with proteins, enzymes, consecutive parts of our cells and immune system. DNA molecules form harmful toxins that induce oxidative stress (causing damage of tissue and organs), DNA damage, and cell death processes while also impeding biochemical reactions and posing carcinogenic risks. Therefore, heavy metals are capable of altering the immune response, they have been implicated in influencing autoimmunity. In fact, they are usually inhibitory to immune cell proliferation and activation.. [8]

This is already proven by observing differences in fish development that have been living in high concentrations of heavy metals. The pollutants affected the growth and development of fish during early life stages because they were more sensitive during these stages than during mature stages.

Through analysis, liver, kidneys, gills and muscles have proven to have the highest amounts of metals present.
This is logical when we think of the function each of these parts has in the body, to remove toxins, filtering the water and breathing, storing energy. The amount of metal present in the body follows the food chain. The strongest, most powerful pieces contain the most as they nurture their bodies with other smaller species which have already accumulated a certain amount of the toxic elements. This is clear when we think of most commonly consumed big fish, tuna, sharks, salmon, as to nurture the large body, a larger amount of food is necessary in order to keep the organism moving. Diet is therefore a crucial factor that cannot be overlooked.

It is important to understand that presence of these metals in fish poses a great risk for humans, as we stand at the top of the food chain. The communities that depend heavily on fish as a source of food and protein are at greater risk of higher exposures. This trend is noticeably, but not solely, present in communities, whose relationship to food and its acquisition is reflecting our gatherer-ancestor's behaviours and habits.

National health services provide analysis allowing for the regulation of the food market and ensuring that the available food is healthy and uncontaminated. World Health Organization (WHO) and the Food and Agriculture Organization of the United Nations (FAO) provided recommendations on the maximum permissible amounts of toxicants in food, their total daily intake and weekly intake for adults, after which each country, according to its own studies and according to the recommendations of the WHO and FAO, adopts national regulations that prescribe the maximum permissible amounts of certain pollutants in food. The determined values in foodstuffs must be within the limits of the prescribed maximum permissible amounts in order to enter the market. Speaking of Mercury specifically, the recommended WHO weekly tolerable intake values for total mercury are 0.005 mg/kg body weight, so most countries have introduced limit values of 0.5-1.0 mg/kg total mercury.

Therefore, for a person weighing 68 kg, the reference number of mercury would be 0.0068 mg. An 85 g can of tuna contains 0.01071 mg of Mercury. This would imply that even a single

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[8] Detection of heavy metals in fish muscles of selected local fish varieties of the Shitalakshya River and probabilistic health risk assessment; G. M. M. Anwarul Hasan , Mohammed A. Satter , Anuj Kumer Das , Md. Asif

85g serving of canned tuna consumed in a day could exceed the maximum reference number provided by WHO. This means, if a person would consume a can, 0.01071 mg of Mercury, three times per week, by the end of the life (approx 80.yrs) the amount of mercury in a person's body would equal 0,1g. For a reference, one tooth wights around 0.6g.

When heavy metals find their way into the environment through industrial waste and induce autoimmune disorders, how do we speak of autoimmunity? We produce, regulate production, produce waste, dispose of waste, use the products, and the waste finds its way into our bodies. We act paradoxically; states apply standards and impose laws to manage the discharges, to keep the environment predictable and monitored. But the silent bodies of the state's citizens are those affected by small particles flowing through their digestive tract, and the law cannot apply to the biology of each person. Our states are becoming autoimmune.

AUTOIMMUNITY - MIGRATION IS THE ONLY WAY FURTHER, BORDERLINE.

Environment is toxic and it intoxifies the organisms living in it. The toxicity comes from somewhere else and it accumulates in the bottom. It makes its way to the individual bodies through breathing, blood, digestion and food. To survive in the environment we become one with its toxicity. We become toxic as well. We migrate, we contain the toxicity in ourselves, it is a marker of where we were and how we got to the place where we are at now. Our presence is what speaks of our toxicity, and it is the remaining of our past that creates a border for further implementation into the new environment. We become toxic to the other when we are consumed by them, or when our own bodies reproduce and our children are assimilated in their masses. It is a marker that is unable to be deleted and can be segregated from the body only by knowledge and information analysis, by trial and errors, by directing energy into the outburst of toxicity. Can this marker help us, can its toxicity be privatised and protect us as much as it works against us?

Observing and writing about migration from the point of immunology is how I wish to explore the connection between biological/natural aspects of body ownership and political conception of possessing a body.

"*For nearly two thousand years, immunity, a legal concept first conjured in ancient Rome, has functioned almost exclusively as a political and juridical term— and a profoundly important and historically overdetermined one at that. "Self-defense" also originates as a political concept, albeit a much newer one, emerging only 350 years ago in the course of the English Civil War, when Thomas Hobbes defines it as the first "natural right." One hundred and twenty five years ago, biomedicine fuses these two incredibly difficult, powerful, and yet very different (if not incongruous) political ideas into one, creating "immunity-as-defense." It then transplants this new biopolitical hybrid into the living human body. We have not been the same since.*"

I observe the toxicity of democracy through its uses of violence to prevent violence. It utilises violent methods, when speaking about migrants specifically, using force upon physical bodies, in order to prevent undesirable futures of accepting otherness. The concept of otherness fascinates me. It is deeply rooted in differentiating "us" from "them", but I simply wonder where does this separation come from, and how it entered the political framework we nowadays navigate.

The asymmetry in power relationship is central in the construction of otherness - the woman is the Other of the man, the black man is the Other of the white man, but the contrary is not true (cit. Simone De Beauvoir, The second sex). The self constructs him/herself through devaluing oppositions it is an anthropological constant, every group tends to hold a sense of worth for themselves while differentiating from others whom they may perceive as less valuable. It is about discursive power, and blatantly manifests with modernity.[9]

Autoimmunity is a paradox, it describes conditions in which the organism fails *to recognise parts* of itself as its consecutive parts, and therefore starts attacking its own cells. This behaviour of cells can be reflected in current state of politics; the law protects itself through practicing violence, prohibiting and validating behaviours, in order to keep a level of homeostasis, to prevent violence. Autoimmunity is a paradox that can teach us how engaging in self-defence mechanisms is an act of preventing co-existance of different bodies in the shared space and time.

Western thought, is deeply rootend in the principle of identity constructed through the law of noncontradiction (A is A and it cannot be B) since the time of Aristotle. Then, colonization allowed the West to export its values and have them acknowledged almost everywhere, especially through the universalist claims of religion and science. the onset of the attack occurs due to the presence of an actual pathogenic agent. However,

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autoimmunity is not an absolute ill or evil. It enables an exposure to the other, to what and who comes — which means that it must remain incalculable. Without autoimmunity, with absolute im munity, nothing would ever happen or arrive; we would no longer wait, await, or expect, no longer expect another, or expect any event..

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organism's reaction becomes exaggerated compared to the real threat (thus turning in a threat to its own organsism) – a phenomenon observed not only in biological responses but also mirrored in politics, where laws may amplify security concerns against a small menace and extend them to unrelated domains (e.g. after 9/11, after Covid-19...).[10]

Immunity to law allows exceptions to the law, and stabilises its role as a necessary guideline for society's functioning. The notion of political immunity has been documented throughout history, where certain groups, ex. Church, colonised lands,.. were excluded from certain obligations outlined by law in order to either gain something in return, such as prayers for new rulers, or ensure loyalty of new citizens. It is still present as some organs of power are not obliged to obey to law, or suspend it due to their level of power.

When observing notions of immunity and autoimmunity in the context of migration, I zoom out, I approach individual cells as individual people. If we think of a democratic state as a unified body consisting of several organs, and individuals as its cells, then toxic compounds, or cells that interfere with the regular functioning of this body can be observed as migrants. Therefore, autoimmunity becomes a notion of observing how nation-states treat and defend themselves from toxic cells, toxic compounds, toxic bodies of otherness, in order to ensure their current state of affairs. The discourse around autoimmunity entails questioning identity and body. Is identity immediately assigned when a body is created. But, what even is a body?

Body names CAPACITY not OBJECT. [11]

Thinking of body as a singular place in time that is occupied by an identity is problematic, illusory. When thinking of a singular body we think of it as something that is not the other. We constitute the definition of self by defining what others are not. But, this singularity shows us that in order to be defined we need the other, that opposes a positively connotated Self and a negatively-connoted Other.

Furthermore, observing the hierarchical constitution of a body, its cells forming tissues that later form muscles, organs, bones, bacteria in our guts, we realise each singular part depends on the functioning of others. Therefore, our body is not a singular space, it consists in itself of different conceptions and uses of space and time in order to create a homogenous system. This is where adopting autoimmunity in discourse that aims to define a body comes into place. *"(...), what if we were to recognise that ''the problem'' which autoimmunity reveals is not that "I" can mistake my "self" for an "other," but rather that my embodied self always already is other?"*[12]

An interesting hypothesis emerged from reading one of Cohen's texts, and I will try to summarise them shortly. By observing individual organisms as enclosed systems whose boundaries are protected by the layers of skin, and defining the reactions taken by this physical space to react aggressively, to defend itself from the other, biomedical immunity equaled the body's responses to the politics of war. Cohen proposed rethinking of immunity and use of community as its etymological opposite, allowing us to redefine dynamics of living among others based on coexistence, rather than on fear-reaction response.

How differently might we live in the world imagining that our "commune systems" mediated our living relations with and in the world? How might we experience ourselves as organisms, if we

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[10] Laura Lo Presti

[11] A body worth defending (pg.72); E Cohen

[12] My self as an other: on autoimmunity and ''other" paradoxes; E Cohen

imagined that coexistence rather than self-defense provides the basis for our well-being? How might we have organized our care for the ill and our systems of healing, or indeed our entire political and economic relations, if we imagined that our ability to respond to corporeal challenge represents an aspect of our ability to commune with others? Might biological community have enabled us to perceive healing not just as a biomolecular phenomenon but also as a political, ethical, and material value? Might it encourage us to ask along with Thabo Mbeki: "Is there more that all of us should do together, assuming that in a world driven by a value system based on financial profit and individual material reward, the notion of solidarity remains a valid precept governing human behavior?"[13]

This is especially relevant in the context of migration, and here I am focusing solely on the European Migration *crisis*. Firstly, terminology used in describing "inflow of people" as crisis is problematic. The crisis implicates negative correlation to the basic human right of moving a body through space and time.

Humanity has migrated from its beginnings in search for better living conditions, more food, more appropriate climate conditions. Seeing history as a linear progress, the development of civilisations, industry, agriculture, has allowed for construction of settlements.[14] On the other hand, when colonialism occurred, expanding the stability that was achieved over a certain territory and acquiring more land, people, resources instilled and nurtured further emergence of power. The borders migrated, the violence migrated. That the danger to stability manifested with the creation of the territorial state and the nation-state.[15]

The difference between stability, safety, abundance of resources, and instability, political violence, and colonial narratives immersed in politics and war is what makes it much more complex reasoning for choosing to migrate one's body over masses of land and water. The safe, secure, the coherent is the host, and the burdened, politically, socially, economically exhausted is the unwanted organism posing a risk.

Just 3% of the world population actually migrates at an international level...the idea of a critical mass, a flow, a horde is exactly the rhetoric that need to be deconstructed.[16]

Terminology present in political discourses has created a metaphorical and delicate relationship between human body and political body. Political body is perceived as a living, biological body whose health is at risk. Introducing the figure of autoimmunity into ethico-political discourse has allowed us to rethink the political body, and perceive it as a body that is composed of muscles, tissues, cells. Understanding the principle of autoimmunity in political context therefore imposes that political bodies, states, democracies have the ability of their own undoing, by allowing natural processes of its insides to emerge unconditionally, unlimited by law or culture.

I understand the difficulty of these thoughts, as they go against what we oblige to every day as citizens. It is important to note the difference between unconditionality and tolerance. Unconditional hospitality proposes inherent openness for the other, for possibilities to arrive, without political, economical, juridical calculations. Tolerance on the other hand is opposite, it compromises the supposed integrity of the other by limiting it through law. In the context of migration, asylums and detention centres, borders, permits of stay, documents, they allow us to tolerate, they embed the other in us. If we unconditionally welcome migration "flows", what would happen without the policies, surveillance, data mining, would other become one with us? Isn't that already the case? [17]

Being a nomadic European subject means to be in transit within different identity formations, but

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[13] Immune Communities, Common Immunities; E Cohen

[14] Laura Lo Presti

[15] Laura Lo Presti

[16] Laura Lo Presti

[17] J. Derrida : Politics of Autoimmunity

also to be sufficiently anchored to a historical position so as to accept responsibility for the location one occupies. [18]

Migration is subjective. Subjectivity is nomadic. Each of us is not a solid isolated entity. As we move through space the locations and power-relations shift. Therefore, migration implies a constant shift and multi-locality of our identity. We belong to the past and the present, the identity is not abandoned, it is suppressed and rewritten. Acknowledging subjectivity that is present in migration subjects allows us to understand the need for nomadism, the struggle of re-writing and identify suppressors of singular identities, and a potential to rework the network provided by suppressors to embrace multi-locationality, multilayered bodies and identities.[19]

The Mediterranean is not a border, has no centre. It is a language. It is a history. The need for a centre is close to the need for an identity. The idea of an identity, the Mediterranean has not lost it, it's there, beginning to speak again. The sea is also a space that accommodates unspeakable dreams and hopes(...) [20]

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[18] BECOMING- WORLD A New Perspective on European Citizenship; Ross Braidotti

[19] Laura Lo Presti

[20] Thus Waves Come in Pairs, A conversation with Etel Adnan and Simone Fattal

5. *HEAVY METALS — EXTRACTION BY USE OF ALGAE*

I follow the money line.

Sea and land need to be constantly narrated as coming in pairs.[21]

I recall travels to the port of Trieste as I was a child. My parents and I used to go there every month, or two, just for a day. I recall the smell that overpowered my nostrils as we entered the city, the sight of large, smoky, monstrous industrial buildings. The smell, it made my breath so heavy, like ashes entered my lungs and would not escape.

The land and the sea are heavily interconnected. As most of the industry happens on land, we rarely perceive the relevance of sea and waters in the processes of maintenance. The vastness of the sea is incomprehensible to human perception and reason. The borderless masses of waves and tides contrast the limits of human movement, temporality. It is as if the sea is a well we keep filling. The resignation of limits the sea implies clearly exemplifies the connectedness of all waters in the world. Therefore, when a river enters the sea, it merges the story of the land it travelled to the salty waves.

The river tells of the dams, the inability to move freely, it tells of a mill using its power to produce flour, it speaks of animals drinking from its veins. It tells of monstrous, smoky buildings whose reflections modify its colour from green to grey, it speaks of these buildings in fever, it speaks of them as an ill child seeking for a mother's hand. It trespasses these buildings, but it is not the same.

Polluted water can be defined as water that contains excessive hazardous contaminants that make it unsuitable for drinking, cooking, bathing and other uses. Water pollution generally results from human activity, and the pollutants released mostly come from industrial dumps, sewage leakages, oil spillages, heavy metals, animal wastes, chemical wastes, eroded sediments, deforestation, littering, fertilizers, herbicides, pesticides, etc. These sectors consume around onethird of renewable freshwater that is available and the pollutants released by them contain various synthetic and natural chemical contaminants. [22]

The vastness of the sea is compromised once we realise it is not giving us what we are used to, when its resources start running out. It is human misuse that compromised the wellbeing of this massive wave. Now, when our policies are not enough to protect the massive wave, we start digging for answers in nature to find a cure for our wrongdoing.

Bioremediation is a technique for removing/ converting harmful contaminants like heavy metals into less harmful substances; and/or removing toxic elements from the contaminated environment; or degrading organic substances and ultimate mineralization of organic substances into carbon dioxide, water, nitrogen gas, etc., employing dead or alive biomass. As noted, heavy 15 metals find their way into the waters because of human activities, as well as through natural processes of erosion and leaching. Algae, especially micro algae, has a great potential.

Algal cell structure is rich in lipids (fat), and carbohydrates which acts as a perfect binding material for heavy metal ions floating in the water. Furthermore, algae can grow in extreme conditions amid heavy metal presence, harsh temperatures and salinity levels. Its adaptiveness to the extremity of the environment can even stimulate algae's growth and expansion in the site. The principle on which algae is able to connect to the metal ions is based on chemical reactions where the membrane transports certain dissolved ions, while blocking other ions or neutral molecules. Transport is a simple principle of osmosis, a biological principle keeping us alive.

Simple experiment of placing one potato cube in salty water and another in regular water can illustrate this process. The potato placed in salty

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[21] Thus Waves Come in Pairs, A conversation with Etel Adnan and Simone Fattal

[22] CHAPTER 1: Industrial Wastewater and Its Toxic Effects; Jebin Ahmed, Abhijeet Thakur, Arun Goyal

water will become flexible, as salt enters its body. Water will move from an area of less salt to more salt (more water to less water), and so when the potato is placed in the saltwater, all the water that is inside the potato moves out by osmosis. The one simply placed in water will become rigid, as it absorbs water. The same way, ions from surrounding water pass the algae membrane and ions enter the algae body.

Nature cures nature.

I would like to focus on applications of Microalgae on the polluted site itself, to elaborate on potential benefit it could bring to the burdened environment.

Microalgae are simple to cultivate, cost-effective, less nutritional requirements, do not produce hazardous sludge with a relatively large particular surface area. They can also be cultivated in wastewater using the nutrients present there, grow through photosynthesis, and take in heavy metals and other pollutants. In addition, microalgae are a key eco-friendly tool for reducing carbon dioxide from the atmosphere, and removing nitrogen and phosphorus from the aquatic environment. Microalgae have the necessary adsorption capabilities and the potential to be used as adsorbents to remove heavy metals from industrial wastewater. Additionally, the metal that has been adsorbed to the microalgal biomass can be removed allowing the biomass to be used again in additional sorption–desorption cycles [23]

There are two ways to go about it. The process operates by cultivating the algae in the presence of a metal ion which has to be removed.

Biosorption is the process where heavy metals bind to the cell wall of algae, reducing the amount of pollutants in the water. This is carried by dead or alive algae, following the process of osmosis outlined earlier. It is a reversible, fast process.

Bioaccumulation is an active process which requires living algae. Part of the absorbed material accumulates inside the algae body which enables the biomass to increase and bind greater amounts of metal ions. This is on the other hand irreversible and much slower, as it alters the metabolic state of the algae, posing a risk to harming the small organism. [24]

The process has been slowly flowing into commercial waters, however, the design, materials, and research is still growing. Algal biomass harvested from wastewater treatment plants can be used as a resource to produce biofuels and can also be used to generate bio-hydrogen and in biogas facilities. Thus, algal biomass could contribute to the circular economy and help the environment, the economy, and society. [25]

I think behaviour is a language. (...) Everything has to be learned. We have to be modest. We have to be attentive. We have to stop thinking we are the centre of the world, because we are not. [26] Realising the powerful forces of natural processes is where we are able to use our knowledge, science, technology and civilisation's advancements. The life has existed on Earth before our emergence as a species, and it exists on levels that we are unable to comprehend.

To observe the knowledges of the others, requires thinking with the others, respectfully and morally, with awareness of the bias present in human reason. Only then we will be able to work with, and become collaborators rather than pollutants.

The most polluted coastlines of the Mediterranean, according to the WWF, are in Europe: Barcelona, Valencia, Croatia, Italy,

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[23] Microalgae-based green approach for effective chromium removal from tannery effluent: A review; Shashanka Shekhar Sarker MS, Taslima Akter, Sahana Parveen, Md. Tushar Uddin, Ajoy Kanti Mondal, S. M. Asaduzzaman Sujan

[24] Biosorption and bioaccumulation – the prospects for practical applications; Katarzyna Chojnacka

[25] Microalgae-based green approach for effective chromium removal from tannery effluent: A review;

[26] Thus Waves Come in Pairs; A conversation between Etel Adnan and Simone Fattal

Greece, Crete. Then comes Turkey, and finally Tel Aviv. The occupation of Palestine is not only killing Palestinians but also the sea. [27] No action is isolated, its effects are felt on the whole of the society, nature. The minds and bodies of those who are greatly suffering are with us with every decision we make, or cease to make, with waters and lands whose suffering we realise once it endangers our health and safety.

When it comes to treating the environment respectfully and carefully, it is difficult to draw the line between profit and actual goodwill. Living in the current state of our society has become more complex than ever. Where politics dictates everyday lives, regulations and legislation is the way to create order, but when we take a closer look, we are able to see that politics is a hidden dance of those in power.

Environmental state is a compromise achieved by state legislation, environmental actors and industries that are crucial for maintenance of economic prosperity of the state. Therefore, as with any compromise where power and money are at stake, fragility of environment is at stake, as industries have a say in setting standards prescribed by the governments and legislation. The influence of industry on politics and environmental regulation standards creates a bias in public perception. I am sure some of the readers will think of recent conflict of interest at United Nations Climate Change Conference, whose president is at the same time the chief executive of the United Arab Emirates' state oil company.

The political strength and privatisation of industry is a crucial factor when observing state relationship to the environment. In state orders where economic acceleration and social recovery based on democratic system is taking place, the industrial power is generally weak, political system is unbalanced, and building the economic foundation is the radically exclusive reality nations, private investors and politicians choose.

We choose what we are familiar with. To take a road less travelled is to take more risks, and where hierarchy is at stake, to take risks for others is difficult. That is why approaching change as communities with equal responsibilities is a matter of taking risks together, for ourselves and for others, for our new, possible futures. It is crucial to start thinking with each other, with the environment, and instead of creating problems that then cost and produce money to fix, we can use what is there and work with it, create new jobs, generate prosperity in companion with the environment.

We will have to do concrete things that go beyond words. It's possible. We have the technology to clean the oceans, but we have to make the decision to do so, and pay the price for it. That is ecology for me, now. What should we do? That which is possible. Recent history has proven to us that when the authorities make a decision, it can be imposed. And we have to come to that. [28]

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[27] Water With No Center; Zeyn Joukhadar

[28] Thus Waves Come in Pairs; A conversation between Etel Adnan and Simone Fattal

6. DATA/ INTERPRETATION

The current utilisation of data and especially of personal medical records can be observed in efforts to trace our bodies. It is a paradoxical situation, as the more information the healthcare provider has about your previous conditions and general state of the body, the least amount of possible accidents, and the possibility to treat the body as a whole may open up.

But, the data shared to the health professional is not only reaching a singular person we stand in front, but a system of national/ continental/ worldwide medical and statistical databases. This is of course helpful, as it allows for advancement of medicine and science, pharmaceuticals, and most currently, the development of future AI systems, where governments are opening the possibilities for big tech industries to enter our medical health data in order to feed their AI systems with real time symptoms and information about our bodies.

I do not wish to enter the discourse around Google (if you are interested, check Project Nightingale), Facebook and the recent trials that have been taking place due to the privacy violations related to these companies. I simply want to pose a few questions.
How much of a say do we have in how the information about our body we want to share, and with who? How can we be treated as a whole, provide all the information but keep away from our body being a data currency in nationalistic and tech environments?

Security failures, system intrusion, collapses in data security, and other abuses of data and trust are some of the potential risks. Consequently, it is a major concern how personal records are treated when it comes to sharing of information between healthcare providers and other parties.

Public health surveillance can be defined as the ongoing systematic collection, analysis, and interpretation of health data, essential to the planning, implementation, and evaluation of public health practice, closely integrated to the dissemination of these data to those who need to know and linked to prevention and control. An important determinant of population health is the performance of national health systems.

Building privacy and security protections into technology products enhances their value by providing some assurance to users that the information is secure and will be used and disclosed only as approved or expected. Such protections are sometimes required by federal and state laws (ex. US system: HIPAA Privacy, Security, and Breach Notification Rules).
However, I wonder, how strong are the policies regulating our digital environments, and how different it is from policies regulating our physical environments, where states fail us.

Where pollution impacts human health, where states fail to protect its people from untreated wastewater, where inability to prevent health impoverishment by dripping toxic elements into water, soil, tactile matter, how can they protect us in the intangible world of binary codes? Where increased rates of cancer, autoimmune diseases, inflammations, diabetes are noted down in statistics of WHO, country by country, citizen is just a number showing the failure of un-politicising the environment for the sake of human well being. I am aware this can be seen as radical outlook on things, and I am aware that not all illnesses come from environmental factors, but I ask for your understanding in my approach of choosing to live with rather than protect from.

I am not in any way denying the advancement and prosperity the fields of science and medicine have brought to humanity. What I am questioning is involving politics and economic prosperity with these two fields. Pharma becomes an industry of advancement, of protecting humans from dangers of the world, and statistics and monitoring of citizens, their medical data is the information that can be used by power-hungry entities to successfully navigate the global market.

"Research" is any systematic investigation designed to develop or contribute to generalizable knowledge.[29]

This allows medical information to be used by scientific or medical community, without official 'individual's' authentication. The protected medical information can also be disclosed, without an individual's authorization, in case of danger to oneself, or to the community.
Therefore, privacy policies are simply policies of tolerance, protecting safety and stability of global/state order, they are autoimmune.

"Nothing about us without us." It stresses that no policy should be adopted without fully involving those who are affected by that policy. (...) "participation" has become a placeholder for inclusion, democracy, and horizontal decision-making processes. Yet, what does "participation" in a given system mean when the epistemic-political codes, the ability to maneuver, and the stakes of the participation are set in advance by the party in control? So-called "participatory programs," like surveys and other forms of data acquisition, have been used extensively by humanitarian agencies since the 1990s, and more recently have shifted into systems for practicing what I instead call "participatory confinement." In such systems, individuals are nudged and encouraged to actively participate in their own confinement and governmentality, "for their own good."[30]

Beautifully summarised by Martina Tazzioli, the notions of participation and its implications on soft violence practiced through different technologies of governmentally, have conditioned us to work for the system that is failing us. Extraction of knowledge and feedback by providing our own experiences, data, skills and network to NGO's, governments, big industries has entangled us into the position of dependance and disciplinary systems.

Our knowledge, experience and life are observed through several community development approaches, public campaigns, where the information we provide is used to ties us back to the market, to keep the consumption loop going. And while it seems like optionality is a choice, we are strictly dependant on following embedded rules and laws, because the notion of freedom is compromised by notions of prosperity. This has been proven over and over during the recent pandemic.

Superficially, corporate capital in the form of techno-giants, big pharma, and the surveillance industry has managed to do the unimaginable: extract, evade, and profiteer even more than before, enabled by governments and central banks —the same governments and central banks advocating for the resilience, self-reliance, and autonomy of welfare states, individuals, and real economies. All the while, in many countries, the mantra of "public health on the brink of collapse" echoed as the best and most insistent advertisement for private healthcare in decades. [31]

DATA IS THE NEW OIL. DATA IS TOXIC. Bodies are used to produce income.

Searching for a way to collectively grow and distribute the knowledge, to contribute for the sake of reaching collective autonomy, and independence is a way forward. Learning to co-exist is founded in collective well being and interdependence, learning to value the other and the living instead of profit or social conceptions of power.

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[29] Summary of the HIPAA Privacy Rule; The U.S. Department of Health and Human Services ("HHS")

[30] Martina Tazzioli and Oana Pârvan; Technologies of Control and Infrastructures of Redistribution

[31] Martina Tazzioli and Oana Pârvan; Technologies of Control and Infrastructures of Redistribution

7. TEETH — HEAVY METALS— AMALGAMS + TEETH PROCESSOR AS A CURE

Human body is a collection of many. Its ability to bring together different functions and tissues, different skills and knowledges, textures, temperatures, living forms, particles, to interpret the world and become one with it, to experience senses, to move and change through time. Instead of physically bordered entity, I choose to observe it as the sea, as an enormous, un-comprehended tempo-spatiality that lives with and changes. Every time I smile, I am reminded of my belonging. The small gap between my front teeth inherited from my parents, the jaw structure reminding me of my grandmother. I am a collection of others.

Teeth are 52 personal time capsules present in a person's mouth. Teeth incorporate the chemical elements from the food and water a person consumes while the teeth are developing. Once a tooth forms it does not change.

After the teeth form, the cells die, meaning that our teeth are made of the same material now as they were the day they were formed. This means the chemical signature of the environment and our development within it is locked into each of the 52 white capsules. Their inability to renew themselves, to fix themselves is contrary to the flexibility and progressive nature of our immune systems. Tooth is concrete, but it contains stories, it is a witness of time and space passing through oneself, it is fluid.

Our consumption habits, relationship to food and the discourse around food triggers the mind. While migrating through different territories I realised it is one of the components of my personality that deeply reflects my belonging, my history. I recall the bland taste of mass-grown dutch tomatoes in my mouth, while my mother was rising every morning and picking the flavour bombs from our family garden.

Food production is reaching its top limits making it difficult to trace the food origins, while prioritising picture perfect mass grown fruits and vegetables, and disregarding the beautiful natural formations. We became exposed to flavours, or non-flavours, we have never witnessed in our close environment, and while the beauty of sharing and exchanging traditions, the development of health conditions such as allergies, autoimmune responses and digestion issues is what shows us that the wider does not necessarily mean the better. To prioritise time towards moving closer to the food sources stands in contrast to the always available grocery isles.

It takes time for our body to adapt, to accept the unknown, and it is possible, but it is important to question journeys that led to the moment of exchange. It is important to take agency into understanding, knowing and learning about these journeys.

As discussed in previous chapters, consumption of fish can lead to accumulation of heavy metals in our bodies, which can prove to pose health risks. Heavy metals as mercury have on the other hand been used in medical fields.

When the teeth decayed, mercury alagdams were used as fillings, they filled the teeth with a mixture of mercury and other metals. Dentistry stopped using Mercury because of toxicity of its vapours, that impact both the dentist and the patient. Passive inhalation of these vapours from amalgams in the mouth, can get a person slightly poisoned. Once it is placed, it is very difficult to remove it from the tooth because the whole procedure is complicated, for the same exposure reasons. Its handling and disposal are crucial from the side of the dentist. Shortly, mercury alagdam is a saviour turned into enemy. However, the progression of dentistry has led to development of non- toxic methods for treating the same conditions.

The tooth is taken as a constant system without changes, that can only deteriorate or be saved, be cured. The decay cannot be reversed, but it can seemingly be fixed.

TO BE SAVED = TO BE CURED

Democratic Autoimmunity outlines the role of justice and law practices in using violence prevented by the same jurisdiction. It is impossible to progress and accept a foreign body, even though that foreign body is already part of the same society anyway.

Does being cured actually equal safety, or does it simply outline our further dependence on the same system and its methods?

Erasure of stories, histories is happening every day, it has been happening through the whole of human civilisation. As bodies welcome change, can they welcome new forms of knowledge?
Migrants are part of society but they are positioned outside and treated as something external.

If i was a migrant my health data could become a point of information that displays my journey, I might be saved but what happens to the others entering the non-permitted land? My situation as a migrant would not be cured. I would always be seen as an other, external to the system. This is simply the failure of governance technologies. These technologies accumulate, store, observe, monitor, yet they fail to act

... it is considered a humanitarian approach to normalize refugees' confinement in Europe instead of recognizing their freedom of movement as a human right... [32]

Borders, confinement is not only physical. Accessibility and right to surpass the borders is, among many, to move freely, to have a safe home, to be treated by a medical professional, to be educated, to have the right to vote, to be employed, to become a part of socioeconomic textile of a state. By regulating, labelling and systematically displacing people, we are displacing their knowledges and their rights, their histories, their right to inhabit time and space. We are erasing their presence, and by that, erasing the ability to learn from each other and create interwoven worlds.

Socioeconomic and legal modes of destitution are mutually intertwined: women, men, and children seeking asylum are increasingly rejected as refugees and are thus turned into illegalized migrants by state formations. This rejected and legally invisible population without rights on the European territory encapsulates the effects of displacement and dispossession "that congeal in and as group-differentiated vulnerability to premature death," in the words of Ruth Wilson Gilmore. In actuality, even those who are recognized as "refugees" are increasingly treated as "migrants," meaning that they are in practice excluded or obstructed from accessing the mitigated welfare and rights that the former term might guarantee, even if in theory more than in practice.[33]

The question of displacement and belonging has led my research towards developing silent forms of resistance. I realised how vulnerable and powerless I feel, and how my inability to comprehend my own extensiveness, the reach of my actions, my information, my output is making me uncertain, multi-spatial, multi-temporal. It is making me controllable. A desire to catch all the loose threads, to tie them in a knot and hide them from the world, is a form of speculative future as act of silent resistance.

My act of resistance was to collect, to fight by means of providing agency in sharing, storing and utilising knowledge and skill for the betterment of one's life. Robbed of everything but our physical being, the cells of our bodies and its processes of sustaining the biological functions, body memory is the only private memory.

Can the bodies store the knowledge of their lives in them, preserve it and pass it on? Can the amalgdam be a place that will heal us?
I imagined a world where toxic metals could speak of our body. Where their presence is not observed as a threat, but as a potential, electronic potential. Because money is the driver of the world, I wondered what is it that everyone has, needs, that is stable enough to carry stories and remain neutral in the eyes of the power/profit hungry. Could it be a tooth, small enough to hide, many enough to choose from, present in all the humans, biologically stable?

Allowing our body, a tooth, to become a vessel of digital data, transferrable to the outside world only upon our physical presence and permission.

Can it fill this gap in knowledge, the erasure that has been happening, can the teeth speak where our mouth couldn't? What if a tooth becomes a vessel for private data?

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[32] Martina Tazzioli and Oana Pârvan; Technologies of Control and Infrastructures of Redistribution

[33] Martina Tazzioli and Oana Pârvan; Technologies of Control and Infrastructures of Redistribution

Developing a model of technologically altered tooth became a quest of searching for possibilities of giving agency to individual biological bodies. This speculation observes possibilities of applying the technological and scientific advancements to co-exist and work with, rather than work against humans. By understanding principles of application of metal amalgams, metal's electric capabilities and uses in technologies, I dared to imagine cohesion of the fields.

A tooth that has decayed, filled with an amalgam that is containing in itself properties of a small headless computer. This could allow for storing individual data, carrying it with a singular entity and updating it throughout life, with medical information, migration pathways, thoughts and emotions, sensorial input. It could be a possibility of extending one's life further, allowing for collecting stories that cannot be erased, that cannot be a subject of oppression.

This stories could be accessed only by our permission, only by our physicality, because to remove a data from its origin, is to remove agency and responsibility for its use. Would this tech crossover with biology and medicine allow us to live more private lives? What if placing data in teeth can heal data's toxicity? What if the data about us is used for, not agains us?

I have hope. I choose to work with the advancement of civilisation and use it for good.
The sea with its fluid and tempestuous custody of ebb and flow of histories we seek to know, frustrates our rationality. This maritime challenge suggests, beyond the more obvious Appel to the necessity of interdisciplinary and transnational analysis, the resignation of limits. [34]

We start our lives in the waters, it is time to go back and learn from it.
Like ripples on the water once a stone is reaches it surface. The waves of our being interact with the world around us, with seemingly "others", but actually parts of us. To become aware of the ripples we initiate can become a way of silent-resistance and transformation of the closed loops we inhabited from ignorant histories.

[34] A marine Thirst; Barbara Casavecchia