

THE CITY INSIDE THE SHIPYARD: CONNECTING AGENCIES AND CONTEXTS THROUGH THE INVESTIGATION OF *DWORKERS* AND *ARTIFACEMENTS*

By *Francesco Bertucelli**

Abstract

The present paper illustrates a theoretical and methodological framework designed to describe and connect environmental and economic concerns related to an alleged situation, the yachting industry. Adapting the methodological sensibility of Actor-Network Theory, the site is treated as an entity yet to be formed, *keeping the landscape flat* and following actors' ontological pluralism across levels. In fact, it is argued that an ecological perspective can be assumed only by dismissing hierarchical frameworks based on the distinction between micro and macro dimensions, or idiosyncratic agencies and structural context. Thus, the separation between theory and practice is overcome as well, since conditions and possibilities of such reflections are inseparable from the analytical assessment of the peculiarity of shipyards manufacture taken in exam, which refer to a situated knowledge revolving around the ship, and which is treated as a complex and heterogeneous *matter of concern*: a controversial entity capable of formatting and interesting both workers and urban dwellers. This is achieved by researcher following different *modes of existence* through the work of problematization of contents provided by informants. Which are collected and assembled by the former, and consequently turned into a manageable and addressable territory tied to a specific public and its interests.

Keywords

Actor-Network, Ontonorm, Transcality, Shipyards

* FRANCESCO BERTUCELLI is a PhD. Student at University of Pisa.

Email: francesco.bertucelli@phd.unipi.it

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What do you love in others? – My hopes.
F. Nietzsche, *The Gay Science*

1. INTRODUCTION

In contemporary social theory and research, it is widely accepted that two distinct – but interconnected – time-space articulations of society exist: namely, micro and macro dimensions. Moreover, also that these observation points retain the same importance for understanding society from different fruitful perspectives, which correspond to opposed and long-standing paradigms and methodologies in the discipline of sociology (Cetina, Cicourel, 1981).

Thus, the local and idiosyncratic event, on the one hand, is supposed to be dialectically matched with the global and systemic phenomena on the other. In the same way, the scientific method prescribes to reconcile the particular observation and the general rule, or the private trouble and the public issue. So that the change produced by *life* is always adequately consolidated and understood through adequate *form* (Simmel, 1912, ed. 1925).

Despite the conciliation agreement between the two frameworks, the compromise achieved, in functionalist terms of individual agencies inserted in structural contexts, always seems to lack the capacity to provide complete representations, as it maintains the dualism. Indeed, micro entities, which are just a manifestation or an example of a broader unit, necessarily require some *generalizability* to conserve their significance. On the contrary, macro platforms, run the risk of excessive abstractness and a-historicity if they cannot be successfully *applied* to individual cases. In this way, a contradiction arises when the due attention of researcher to value-laden case scenario and informants' experiences are downplayed by necessity of contextualization required by academic standards for the interest and legitimacy of a research.

On the contrary, in this article it is argued that through a radical overcoming of such dualisms, moving towards a fully monist perspective, is it possible to propose a way to read patterns of behavior and the *material setting* where they occur, without necessarily having to oppose one against the other – as it is when hypostatizing *metaphorical contexts*.

For example, what should be addressed empirically, if we assumed them being an urban territory and its economic activity? It may seem obvious, since in our daily lives we are constantly confronted with the city we live in, we are directed to, or we are leaving from; as well as

with the job we do, we would like to do, or rather would like to abandon, as if they were relative stable allusions: that is, space and actions that occur *in* it. Subjects confronting objects. But if we tried to question what these entities *are made of*, we would hesitate doubtfully uncertain deciding what kind of discrete unit should be appropriate to take as a starting element, what should be considered the *primum mobile* with the task of regulating the others.

Or, if preferred, what is the general, achieved, or natural vessel and what are the particular, disputable, or addressable elements instead. Not only, but we would see that the two dimensions also blur the boundaries of their definitions: namely, can we say that a city is made of neighborhoods and industrial zones? Or maybe, would be more appropriate to speak of streets and buildings? Perhaps, plots and assets? Possibly, but what ensures their coherence and unity? What assures that a series of facilities and their affordances have a common *recipient*, and they are not isolated elements? What is *genius loci* made of? Of course, is the use we make of them, the administrative action, that is, politics and economic activity, but what are these latter in return composed of and directed to? Clearly the same material structures and goods inform, sustain, and direct the action, in order that, ambiguously, we could say that action while it takes, it also *makes* place.

The argument is trivial, and absurd, if compared to the micro-macro syllogistic relationship, but still surprising: in the end, if we remained adherent to the *materiality* – in a literal sense – of our empirical base, we could not say once and for all which one, agency or setting, is the *container*, and which one is the *content*. They are tautologically interlocked and constantly overlapping, and any attempt of essential hierarchization is doomed to fail. We are all like tilers placing tiles: the clue lies into choosing the right size to determine the whole pattern.

More formally, it is to biologist Jacob Von Uexküll that must be recognized the *transcalar* idea that the living being must also virtually include in his constitution the actual conditions of his environment in order to exist (Sloterdijk, 2005; see also Jaque, 2019).

The consequences in this sensible shift in observation are remarkable, and lead to further considerations concerning epistemology and the objectives of scientific inquiry, especially in regard with politics. For example, what social science must aim to, once we are delivered from the possibility of reaching an “outside general sphere” from where to observe peculiar phenomena, that is, from where to exert a critical view (Latour, 1999; 2004)? Where can we find a “handle”, that is, a starting point to establish patterns of cause and effect

to describe and explain events and make prescriptions given that no “context” is given once and for all, and everything seems temporary and unstable? Where our freedom lies, since in this framework every actor potentially gains agency on everything, while at the same time he remains subjected to all the rest? How can we deal with a world made of manifold units, human and non-human, constantly exchanging their parts?

Fortunately, as Gregory Bateson taught us, «logic is a poor model of cause and effect» (1979: 54-55), which means that if we remained too faithful to what “good sense” tells us to believe, we would miss the experience of many entities going on and interacting each other, *making sense* historically, beyond what logic states.

In other words, to become aware of phenomena and events occurring before us, and to respect their ontological dignity, one must combine theory and empirical research, transforming and diverting them from their canonical dualist connotation, so that one would reflect the other, like the movement of the hand on the skin and the gesture of caress.

Namely, this involves the collection of observations and reflections recognizing them as emerging statements from the empirical research field, and inseparable from it. Where actors play their role affirming their willingness in their own languages and dispositions, taken as indeterminate sets of heterogeneous concatenations; which include material entities enrolled for such *scalable* compositions.

So, it is in this spirit that here is declined the idea of *theorizing from the margins* (Krause, 2023): via the conservation of exigence of respect of idiosyncrasies, and the recognition that *the global is necessarily somewhere in particular*. That is, with a theorization *for* the margins. Then, to avoid any pre-assumed (and, consequently, already established) functionalism, while still making necessary what is unnecessary, one could start by focusing on a research object deeply inscribed in his or her interests, biographical trajectory, principal's requests – academic or private –, people and places that affect his or her constitution as an intellectual; that is, being *reflexive* (Suchman, 2011) on the engendering processes and possibilities of research disposition and being sensible to shifting values, intended *rhizomatically* as the affirmation of differences.

Thus, despite we have been taught to overcome our personal bias doing science (Weber, 1917, ed. 2011)¹, such as in public life private interests should be disregarded (Haraway, 1988; Marres, 2005; 2012), it is worth recognizing that feelings, opinions, partial knowledge, resources and relationships count in formatting profiles as scholars, which are always committed to a specific field of observation, «the social world, the only one known to us *from the inside*» (Tarde, 1895, ed. 2012: 37), as this inform and direct the attention of a person, a situated bodily apparatus *with questions*.

Therefore, given that it is always about what we care of, and it is always about making public what we care of (Law, 2022), I have found suitable to develop my situated theoretical reflections by referring to yachting shipyards, which insist in a specific zone, the city of Viareggio (Italy) and the vast surrounding coastal area.

For the purposes of the argument, the interest in this peculiar industry, addressed to wealthy and cosmopolitical people, stems from being located in a relatively small provincial town tied to it. Which means that it allows to look at “global” and “local” situations together, or to conduct both a “restricted” and “comprehensive” research. It is tailored for a specific (but general) urban public as a picture, and for a general (but specific) academic one as a frame, and vice versa.

The research design is thus focused on exploring how the economic activity impact – and it is formatted in return – by modifying, such “where”, in a way that is mostly unchallenged by the inhabitants. That is, the intention is precisely to enact – to ontologize – a scale for the development of a public sphere coinciding with processes of place making (Oppenheim, 2020). To put it simply, to foster description through a normative commitment. Which Puig de la Bellacasa calls *knowledge politics* (2011).

This can be achieved by putting to the test alleged benefits of such industry, adopting as a point of observation that of a person who lives in the place but knows little or nothing about it. As if the context had not already been prepared, but as if it was necessary to build it piece by piece. Which means an exploration of the detail moving from our common experience of alienation from our own land, and the need for *landing* in an uncharted place (Latour, 2015; 2021), too hastily dismissed as “local”.

¹ However, as illustrated by Michael Burawoy (2013), it is unfair in respect to Max Weber to attribute him such a simplistic view. Rather the notion of “*Wertfreiheit*” has been used beyond the intentions of the author as a pseudo pretext to legitimize the idea of a “neutral” science, whatever that means, that he never endorsed.

In fact, the idea is precisely to oscillate between these two sets of reference maintaining ambiguity and thus, on the one side, to get rid of such insignificant distinctions, that would do nothing but delegitimize such inquiry from the beginning – «what is the interest of investigating this city, *for other places?*» –, and, on the other, to act as if the margins were the center, to give them back due attention – «the interest lies in describing finally *somewhere for someone*, and not going *nowhere else for nobody*».

In addition, in a more practical way, the setting is adequately explorable in depth, with a dedicated analysis of fundamental detailed elements – as shown below –, without having to renounce to the extension, addressing nearly all multiple agents involved, from firms and workers to politics and civil society.

But finally, the main aspect in exam is the special element produced by this industry: the ship, an entity sufficiently compact to be sold as a finished, black-boxed, *item*, which could be transferred from facilities, assembled in shipyards and moved to the docks, and big enough to be opened up and examined as a *working environment*, as a setting for social action: a set of materials, devices, norms and codes for workers formation and wellbeing, technical innovation stimulus, and production organization and relative conflicts.

Such paradigmatic ambiguity of the ship is the matrix to start looking at things in this field as if they were constantly transforming from one aspect to another, from the role of container to the content, from details to wider aspects.

The intention then, is to move back and forth across levels in a *heterarchical* way, to make an account of multiple points of view, dispositions, trajectories, places, and effects about who and what is implied in its formation. And, as I'll show further in more detail, even to empirically assess the potential fortuity, disorganization, asymmetries, inefficiencies, and controversies that lie *on the side* the powerful images of linear development, trickle down benefits, and high-quality refinement of yachting economy: tropes that usurp the role of causes, whereas they're just questionable effects. But which, nonetheless, affect the appearance of the city and the lives of people who dwell and work there.

In the first place, is therefore illustrated the theoretical framework adopted according to these reflections, especially stressing the differences with other canonical sociological approaches, and in particular their different object of research. Secondly, the research design is traced, calling into question the empirical elements aroused

by/ have inspired theoretical reflections, with two key examples. Third, a particular methodology is developed following these premises, which lead to confront with traditional approaches in qualitative methods, proposing some key variations that will be discussed, to adapt them for this specific empirical research field, and to support the potential effectiveness of presented research design. Finally, partial conclusions are drawn, paving the way for further questions.

2. SOCIAL METAPHYSICS AND IRRATIONAL THINKING

It may help to start this paragraph with a quote:

To exist is to differ; difference is, in a sense, the truly substantial side of things; it is at once their ownmost possession and that which they hold most in common. This must be our starting point, and we must refrain from further explaining this principle, since all things come back to it—including identity, which is more usually, but mistakenly, taken as the point of departure (Tarde, 1895, ed. 2012: 40).

Such argumentation from Tarde expresses a clearly radical position towards other philosophical and sociological paradigms. By focusing on *difference* as the substantial side of things, he stands in stark contrast with idealism and positivism, since these latter, as the author explains, by referring respectively to dialectics and reductionism, would not be able to give credit to the pluralism of the world and the historicity of the existing, since these elements are inevitably suffocated by the unity and necessity of “reason” or “organic totality”. This means that in contrast with Marxism and Functionalism, that both hypostatize a general rule for social change (which actually never changes), for Tarde, scientific inquiry must be calibrated with the recognition of idiosyncrasies and indeterminateness of the events: things which *could have been otherwise*.

That is, a *thought style* (Fleck, 1935, ed. 1979) based on the task of understanding how associations, regularity in behavior, and coalescence are possible *as results* from elements that retain their own independent, irregular, and even irrational, agency. Which also means an existentialist science respectful of the world’s becoming. That is, which «explores and proves nothing» (Bateson, 1979: 25).

But exactly, what should be the item of research then? At first glance, Tarde’s view doesn’t look very dissimilar from Weber’s, or Simmel’s, comprehensive sociology since they share many common inspiring principles. However, the incompatibility is set through the

radical adherence to ontological pluralism of the former, which sees the *actor* as a multiple unit, pragmatically (from the Greek *pragma*, that is, “transaction”, but also, “embarrassment”, or “difficulty”) and heterogeneously composed from human and non-human entities in the course of action, whereas the latter still retain an intellectualistic preconception, leading them to limit agency to the sphere of “sense”, intended as an exclusively cultural dimension: a set of connected ideas and concepts proper of human beings confronting an inanimate series of appropriable objects, that is, nature.

On the contrary, with Tarde (and other like-minded authors), for the first time in the history of modern systems of thought, comes the idea of dissolving the unity and self-direction of the subject, that will become central in post-structuralism. More broadly, for Bruno Latour, Tarde was a forerunner of the particular approach, or methodological sensibility, that he and other authors have named Actor-Network Theory (2002; 2005a)². Where the most important part in the name is precisely the hyphen. *Networked actors*, indeed, stands for the observation of compositions of “humans” and “objects” together, mutually exchanging schemes, roles, and capabilities³. That is, appreciable properties only as *relational* elements proper of incomplete terms, which require a connection with a form of otherness to exist by definition (Schinkel, 2007).

Thus, the divergence from comprehensive or phenomenological sociology to this radical empiricism, can be summarized saying oddly that *the social is not made of “social”*. Which means that, to avoid category errors, like believing to a gas grid made out of gas, inevitable if one tries to talk about *culture* as a series of related concepts or ideas, that is, homogeneous directly linked entities made of the same substance, we have to focus to the multiple *mediators* that connect, by transformation, the elements following and preceding them in the extensive concatenation which allows them to exist. Or, in other words, associating entities by enhancing differences they have in common.

Thus, according to ANT (Law, 2017; 2023), and for the topic addressed here, in exploring the setting of a city and its features fundamentally we are facing contingent and heterogeneous semiotic-

² From here on abbreviated as ANT.

³ Latour’s use of word “actor” differs significantly from sociological canonical term: for the author, the actor is what is made the source of action in a network populated by actants (anything that acts), which elicit and format its action program (agency). This is why intentionality for him is not given in advance, but it can be assumed in the form of an actorialized network.

material *agencements* (i.e., assemblages) (Deleuze, Guattari, 1980), which elicit and distribute agencies, forms of knowledge and interests: that is, we must investigate precisely how a centralization of material infrastructures through practices contribute to the arrangement of situations for production, consumption and distribution of goods and services for urban dwellers (Latour, Hermant, 2006; Fariás, 2011; Blok, Fariás, 2016).

Therefore, according to this approach we must conceive the city as an *infrastructuring process* in the making: in this sense, the organization of space in his physicality is an eventual entanglement which enacts political and economic interests (and it's not, coversely, just an epiphenomenon in respect to them, as it is for critical urban studies), defining and inscribing actors, roles and actions by deployment of the networks of associations between human and non-human entities.

Despite it is well accustomed in urban sociology not to treat space as a mere vessel, the point with ANT is the sensible ecological shift for a new paradigm that no longer see it as ontologically different from "social facts": overcoming the bifurcation between *nature* and *culture* (Latour, 1991; 2013), implies assuming that space is an extension of society, that humans entertain a transactional relation with their environment and that dwelling has to be seen as a way of world-making.

To put it simply, we can make a comparison with the animal world, thinking about ants and their anthill: the nest is built relying on colony demography as a pile of soil and pebbles, sometimes sculpted with saliva and organic material, so that it will be pointless to say that they *belong* to an independent "habitat", it is up to them to create it⁴.

Therefore, as discussed above in the introduction, we must completely dismiss the ordinary logic that puts phenomena *in* a given context, framing the world as a series of nested russian dolls, but rather we have to look at how activities unfold *alongside* the city. Or, in other words, to look at economy, politics and even culture as composed of material assemblages that no longer take place in a distanced abstract

⁴ One might even say that this is an element of divergence from the thought of Gregory Bateson mentioned earlier (*ibidem*). Since the latter has perfected its systemic approach by adhering to the Whitehead-Russell logic types theory, according to which a set of elements belong to a *higher and different level* from that to which its elements belong. Rather, in this article, the opposite is precisely argued, following Tarde's counterintuitive conception (but just for analytical philosophy) of the "whole as always smaller than its parts" (Latour *et al.*, 2012).

sphere but are enacted *through* urban and working material infrastructures as one of their dimensions.

In fact, if for Latour one cannot comprehend society by referring only to humans and social/symbolic interactions, as they must be consolidated via delegation to a whole series of non-human entities (1996), it is also true that “objects” themselves can no longer have their common connotation. Now that we are assuming they are caught in a network of relationships with human partners, that they have gained agency, they can no longer be considered helpless and available *matters of fact*. Actually,

ethnologists, anthropologists, folklorists, economists, engineers, consumers, and users, never see objects. They see only plans, actions, behaviors, arrangements, habits, heuristics, abilities, collections of practices of which certain portions seem a little more durable and others a little more transient, though one can never say which one, steel or memory, things or words, stones or laws, guarantees the longer duration (2000: 10).

As Henri Bergson would say, the only thing we can say about these collections of practices is that they are formed by «the habit of getting into the habit», that is, they are formed through the dynamic remodeling of human and non-human combinations as *matters of concern*: multiple units formed as dispersed assemblages, into constructions that ultimately lead to overcoming the very distinction between human and non-human itself (Latour, 2004; 2005b).

Eventually, this network of mutual relations for Latour is the item at the core of his approach, which, incidentally, proposes as a sociology of *associations*, distinguishing from the canonical sociology of the *social* (cfr. *supra*). That is, as an anti-essentialist perspective based on an *experimental metaphysics*.

In fact, in a disruptive and provocative manner, the author argues that it is worth assuming that society does not exist at first, and that it must be obtained as a fragile composition through the passing of trials of strength: instead of positioning ourselves *a priori* in global capitalism, or in a similar ready-made *macro dimension*, opposed to a *micro* and *local* one, it is much more *realistic* and accurate to make a punctual and uncompromising account of all the *means* necessary to articulate and extend relationships among elements and relative power asymmetries. However difficult and complex it may seem, the benefit of *flattening the landscape* and avoiding transcendent leaps, lies in the possibility of disavowing defeatism, and into making the powerful pay the cost of the means for the exercise of power without discounts. And

mostly, into returning paths for action unreleased and therefore new possibilities for life.

3. RESEARCH DESIGN: «EVERYTHING IS THE MEASURE OF ALL THINGS»

But then, how can we translate this framework into operational terms? With what intention these associations should they be investigated? And where to start?

As anticipated, in this text the objective is to avoid abstract theorizing trying to draw a lesson from the study of the relationship between a port city and the shipyards industry, where the former is not conceived as the “context” of such economic activity, but the most visible and publicly shared (that is, disputed) part of it. More formally, what is taken as the subject of investigation is a series of *images*, «more than *representations* and less than *things*» (Deleuze, 1983; 1985), which are reflected with each other, articulating from the most important that lies at the heart of this system, namely that of the ship.

In other words, as yachting is not made out of “yachting”⁵, to speak of a description of the port and shipyards is adapting a metonym, for the very object of such inquiry would be a wide variety of questionable entities, assembled to form different interconnected environments (Law, 1984): such as, unusual requests of shipowners for customized vessels, which are formatted by brokers and marketing operators to meet shipyards’ manufacturing capability, but which nonetheless condition an unpredictable market and feed a flexible work demand (Callon, 2021); the docks and their bound use as state property subdivisions managed by local harbor authority (where corporate social and environmental responsibility is required by law), and the shipyards buildings that insist on them (Marletto, 2009; Tei, 2011); viaducts and logistics solutions planned by local government to reach their site from other workshops and production facilities, modifying the urban structure (Faccioli, 2007); yachts getting bigger and bigger, facing the sandy shallow seabed with the necessary dredging, which is due to bad design of water dams, that also causes erosion along the coast nearby

⁵ There are not many works dedicated to the recreational boating manufacture from an objective – i. e., non-enthusiast – perspective, especially focusing on industrial and labour aspects (themes related to tourism are often prioritized instead). This article owes much of its inspiration to a recent work on craft industries, with which it shares many findings, although it aims to propose an alternative methodology that attempts to situate shipbuilding within a broader ecology of practices (Inno *et al.*, 2022). I thank one of the anonymous reviewers for inviting me to emphasize this point.

(Bargellini, 2002); citizens' environmental protests for the impact of concreting and expansion of the constructed, that threatens the surrounding green areas⁶; and so on.

In addition to all this, we must consider the “inner” articulation of an industry that is anything but a homogeneous system, given that many different actors are *enrolled*, based on different levels of technical complexity involved in the construction of a single ship: from “small and local” companies employing craftsmen with a low-medium specialization and added value, to “big and global” corporations, providing highly advanced devices, to be installed as (relatively) black-boxed items.

In fact, the shipyards, which are companies that orchestrate the processing of yachts as a series of contracts, on the one hand, they rely extensively on the former, outsourcing to them an important part of the work (for example the production of hulls), whereas they remain lightweight being based almost exclusively on management and design divisions; and on the other, they negotiate the demand and the effective definition and implementation of technical devices, especially designed for this nautical sector (or even for a single boat) with the latter (Del Corto, 2008; CNA Nautica, 2019).

In this sense, by prefiguring the *imploded histories* of different objects, that is, by following the many threads (economic, technical, political, organic, historical, mythic, and textual) from which they are made, it is possible to de-essentialize them and start seeing solid, irremovable things as questionable constructions (Dumit, 2014).

And the only way to gain a more comprehensive and expansive perspective is by delving into the details. Details are essential in this field, forming the foundation upon which the entire industry is built. This is where the challenge arises: the yachting industry, operating within the luxury and *Made in Italy* market, derives its uniqueness and value from exceptional craftsmanship and high-quality production.

In fact, the main feature of handcrafted work lies in the ability to translate architects' drawings and renderings, often lacking specific details, into the actual construction of the vessel, ensuring that the finishes achieve an high level of aesthetic perfection. Thus, leading to the inevitable amount of continue planning and experimentation in each

⁶ See the article “Viareggio, il no degli ambientalisti alla strada per gli yacht”, published on *Il Tirreno* website, on 15/10/23:

<https://www.iltirreno.it/versilia/cronaca/2023/10/15/news/asse-il-no-degli-ambientalisti-alla-strada-destinata-alle-barche-1.100402197>

phase, which is never absolute improvisation, but a construction based on the experience gained by the people who work on it.

This is what differentiates these yachts from any other ship, or any other manufacture of means of transport: the process remains almost entirely «manual» (that is, using analogical tools), being poorly automated and automatable, and many of the devices developed are openly discussed in their formation by contractors, engineers, marketing experts and installers. So, everyone has their own vision of things, and engages in controversies to assert it, as well as to retain their competence and job position.

An example can clarify this argument: more recently a certain device has established itself universally in the industry, the Fitlock. This patented object has been developed by an important company operating in interiors design and construction, and it consists simply in two interlocking inserts that allow to fix the ceiling and wall panels to the structure of the vessel – in a perfectly geometric manner – while allowing them to be removed as needed to access the processing of the rear systems⁷.

Super-patent this one. Even though it's very simple: this movement... [shows the Fitlock movement], instead of...the movement, it stays attached, so it always has the same force, but it can still move. So, since the boat is moving, right? It's not like it stays... the glue allowed for this movement, while a fixed object would tear it: bam! Instead, this one was an invention that combined two elements, the movement and the clip, and obviously, we can say this is revolutionary. (Excerpt from an interview with a marine industry manager)

In fact, one cannot use screws, because, due to the oscillations of the ship, the panels cannot be rigid and need to be allowed a certain movement, which would be possible only with glue, but which has the defect of being difficult to remove. In other words, by combining removability of screws and mobility of glue, Fitlock makes possible to arrange the workmanship on board so that it was not possible to think when using exclusively glue, according to two main ways. First, removable panels allow to overlap processes via escamotages, since interior joiners should not wait for electricians or plumbers to finish their work, greatly reducing the processing time and redefining the geography of the workings in the on board boatyard (and therefore creating the alibi for this to happen); secondly, singular removable

⁷ Cfr. The website of the company for further details: <https://www.fitlock.it/>

panels allow to modify wrong or incongruous pieces modularly, that is, independently from an entire section. Thus, significantly lowering the cost of a realization according to the high standards of quality, and therefore the specialization required by the installer, which can be more conveniently replaced by a CNC woodcarving machine (indeed, absurdly, this innovation, by redefining downwards workers' skills, could hinder the development of further innovation).

In other words, in this sector there is an antagonistic cohabitation between two kind of design projects and relative human and non-human assemblages, that is set as a trade-off: on one side, there is *craft design*, which seeks for uniqueness, by special dedication to every single element in the form of a prototype, and, consequently, which requires intensive and continuous manufacturing done by properly trained personnel, sharing an horizontal and distributed knowledge with designers, and which must necessarily be transmitted across generations of carpenters and therefore rooted in a certain place where the institutions responsible for this are located (Parolin, Mattozzi, 2013; 2014); whereas, on the other, there is *serial design*, which seeks for modular components and working processes, thus aiming at restricting the distribution of expertise, including through the development of digitalization, in order to facilitate the replacement and transfer of low-skilled labour (which is always necessary, even if not adequately trained, thus causing a decrease in the quality of the works made), which thus becomes more freely exempted from a specific place and time.

So that one aspect tends to agglomerate the territory, concentrating a series of interdependent collectives, while the other to disaggregate it. Actually, this tends to contradict the common vision on post-industrial era/globalization analysis: in fact, the sector requires *both* a mixture of offshoring and social dumping expansion-oriented, with the related logistics systems *and*, conversely, or paradoxically, of localization, sector cooperation, investments in training, collaboration with politics, networking and outsourcing relying on trust-based relationships with craft businesses and cultivated expertise: what was once called an *industrial district* (Becattini, 2015).

The point is that one cannot say which one of the two designs prevails, or will prevail over the other as a general rule, rather the imbalance from one to the other is referred to the definition of the

quality standard demanded and achieved, which acts as an *ontonorm* (Mol, 2012) for industry organization⁸.

In our opinion, yes, it is a quality that is decreasing. So, there are no more artisans...let's start from this premise. For many years now! [...] In this situation of, of, boom, regarding the market and therefore production, there are those who are trying to structure themselves with a network of enterprises, of which they have effectively taken ownership. Someone has undertaken this operation, which I consider forward-looking and industrially interesting, because it ensures control over costs, quality, and delivery times. But this operation has been carried out by only one shipyard, right?

Have they acquired the entire supply chain?

Yes, piece by piece, they are acquiring the entire supply chain. From the carpentry for hull construction, to the fiberglass molding for the hulls, to furniture makers for the interiors of the boats, to the electrical systems that, of course, need to be installed on the boats. The engine, however, is purchased externally and then simply installed. But someone has had this foresight, while all the others are continuing... more or less managing with what they can find available on the market, with the labor they can get, and also with the costs that then risk going out of control». (Excerpt from an interview with a trade unionist.)

Actually, this is achieved as an historic concatenation of patches and translations implemented by detailed elements, instead of a functional system (Tsing, 2015). Indeed, by the pragmatic determination of the quality canon, forms and functions of design projects are established, as well as the definition of roles and agencies of workers and firms' owners, the characteristics and dimensions of ships and therefore the requests of expansion of the port and the logistics of the city for exportation to be addressed to local authorities, and which affect the urban landscape.

In fact, according to the tardian motto stating, «everything is the measure of all things», is it possible to summarize saying that the best ship is in the hands of the best craftsman who knows how to build it,

⁸ Actually, every innovation, like the «revolutionary» Fitlock, and the new kind of interiors that it allows to realize, cannot be imposed because of their intrinsic strength. Because they are inserted in a network that includes at least their processing by demanding carpenters, their use by designers in aesthetically functioning projects and mostly the evaluation of buyers. A whole series of transformative steps that establish the success or failure of proposals.

and he can live and work in the territory that brings together the resources for his employment and training for such ship. It might help to rename these *quasi-subjects* and *quasi-objects* as *dworkers* (dwellers and workers) and *artifacements* (artifacts and environments), to maintain their ambiguity, and to evoke what Gilbert Simondon called the *associated milieu* of an entity (1958).

Obviously, if it is necessary to bear the burden of industrial sites, it is not the same to have a transfigured, and perhaps polluted, living environment together with the impoverishment of *dworkers*, compared to a more “sustainable” development of an economic sector for the benefit of all stakeholders: so the evaluation of the quality of the ships under construction, with all ensuing consequences, must be accompanied, or proportionate, by the judgement over desirability of one scenario over another. Otherwise, an excessive disconnection between the extraction of resources, their processing (including their waste), and the enjoyment of products (which are, in the end, for a small élite) would result in an unfair distribution of “goods” and “bads” (Beck, 1986, tr. it. 2000; Sassen, 2014; Schultz, 2020).

This is why is it possible to address the image of the ship as an *artifacement*, flattening the landscape and following actors along the deployment of *operational sequences* (the term from André Leroi-Gouhran, which connects technical acts to social acts), with a particular focus on their engagement with technical issues and controversies, because this makes possible to understand the negotiation of their role and agency in relation to quality standard demanded. And this allows us to look for continuity in the articulation of supply chain by focusing on artefacts and devices that *translate* and *format* the roles of people and objects involved, thus determining the *geography of delegation, responsibilities and knowledge*, which accounts for the evolution of the boundary between what is pre-scribed into the object and its re-scription by actants as a result of interactions (Akrich, 1992; Latour, 1990; 1992).

But still, following Latour’s methodological principle, which states that we don’t have to look above, below, inside or outside things, but *laterally*, undertaking a crab-like movement, the idea is to treat technology as a *mode of existence* among others (2013). In fact, exploiting the interchangeability of container and content, is it possible to link technical features with political, jurisprudential, organizational, environmental and even fictional concerns, prosecuting a deambulatory theory of truth in respect with a multifaceted ship, so as to enrich the

assembly of which it is composed by attaching additional entities not considered in the first place.

Figure 1: Carpenters welding the hull of a ship, and their working environment. Source: picture provided by a professional videomaker and photographer of the sector.



In other words, by recognizing *material agency*, we don't have to redirect the focus just on "objects" commonly understood, otherwise we would simply replace a new dualism to the previous one, where humans had priority and all the attentions, that cannot simply be transferred from one pole to another. This would also mean trying to hide our responsibilities to other beings. So, it is only by recognizing other modes of existence, such as, habits, law, politics, fiction, organization, attachment, morality, and so on, which more manifestly retain the human trace, despite they have independent existence from it, *next to* the technical objects, that we will adhere to an ontological pluralism focused on *machinic assemblages*, collection of practices, or *shared agency*, and not to a post-humanism without humans.

For example, what about a law on occupational safety, or a management model and their implementation by lawyers and physicians, in organizing the production of a ship? What about a strike, an industrial occupation or bargaining raised by trade unionists, in the determination of safety criteria in work activities and tools? What about the videos, photos, and reels on Instagram made by video makers and marketing experts to create the desirability and image, so the estimated value, of these luxury/high quality items and the figures of proud

craftsmen working on them? What about the collection of samples and evidence of coastal waters and ecosystems alteration by biologists and hydrologists, stimulated by civic associations concerned about port expansion? Eventually, is neither about “objects” nor “symbols”, but multiple and pragmatic associations.

It may be useful to introduce another example: to ensure the expansion of the sector, the municipality has decided to take advantage of the unused parcels of the port, and in particular the dredging of an area inside the outer dam has been established. This has the objective to realize docks for the small tourist boats, therefore promoting infrastructures and freeing spaces also for fishermen, and in this way obtaining ulterior surfaces – currently destined to the fishing – which can thus be granted to shipyards. The problem stems from the fact that this area, which can be described as a salt marsh (or *barena* in Italian), has been formed, and continuously replenished by silt transported by the canal connecting the port with the inland waters, going to form a rather large islet, where then different species of plants and animals have settled (Musetti, Voleri, 1989). In particular, two rare endangered species have also been sighted, the Kentish plover, a kind of wader, and the loggerhead sea turtle, who both have the habit of nesting in the sand. But, precisely because of its indeterminacy, which meant that no constraints of environmental protection could be imposed by law (like those provided by Natura 2000 network), this area was abandoned to pollution and clumsy attendance of passers-by. Who, treating it as such, have the degradation conditions of the area come true, preventing these protected animals from settling permanently, and thus allowing their “habitat” to be destroyed soon. Unless of course they make a new definitive appearance:

If this area was, let's say, completely enclosed, so that fishermen could not access it, would they come here to nest?

Of course! They have already nested here for several years, the small couriers. It's a wader, which, although not the same as the little ringed plover, is still somewhat less rare than it, but still quite noteworthy. It nests in areas along rivers, as well as on beaches. And once, I saw it, the little ringed plover attempted to nest here, but that was many years ago... and the area was entirely sandy because the little ringed plover prefers bare sand rather than grassy cover. However, the municipality later dredged the beach for Easter cleaning, and the nest was lost. I didn't even have time to report it! (Excerpt from an interview with an ornithologist on the specific site).

Figure 2: The marsh of the port of Viareggio in front of shipyards. Source: research archive photo.



4. METHODOLOGICAL FRAMEWORK: HOW TO «WRITE IN N-1»

Therefore, how to trace these connections? We have to say that ANT has a long and intricate relationship with ethnography, which starts from the early works of Latour and Woolgar in laboratories (1979) and has been successively developed and articulated through various authors, primarily of Science and Technology Studies (STS), and secondly in other fields (Baiocchi, Graizbord, Rodríguez-Muniz, 2013; Winthereik, 2020): essentially, what STS and ANT retain from anthropological ethnography is the general attitude towards the field of inquiry and informants, which are approached with naivety and inductive spirit, that is, set out for the observation of practices and experience without the influx of previous assumption as a starting point, and for the progressive elaboration of conceptualization through an emerging process done in collaboration with the informants.

However, what is different in ANT's ethnographic accounts is the tendency to avoid *thick descriptions* (Geertz, 1973), which stems from a different evaluation of the empirical, since in Latour's terms the researcher doesn't have to look for any representation of a "culture" (as a logical and linguistic system distinguished from matters of facts) but, as theoretically argued, he must aim to give an account of transformations between words and things following a *flat ontology*.

That is, maintaining concepts and theory at the same level of practices (1999). In other words, the ANT disposition focuses on *networks* and *infrastructures* (black boxes still to be opened and displayed as networks too) to understand how bodies and things interact in a concatenation to achieve an effect in the course of action (its semiotics), and thus form a *collective*, more or less consolidated.

It is to Michel Callon, precisely in a couple of articles, that the methodology to investigate operatively heterogeneous associations must be traced back (1984; 1987). For the author such assemblages consist of a series of *free associations* of animate and inanimate entities (to treat symmetrically), each of which is irreducible to a compact unity, but can always be decomposed in other networks potentially *ad infinitum* (like a fractal). What gives them a “handle” to be grasped is the *definition of the situation*: this process is called *problematization* and it is operated by some *actants*, through the operation of *simplification* and *juxtaposition* (reducing variables from infinite to a finite number, thus turning complexity into complicatedness), that permits to give actors an identity and interests to perform in connection with others.

The *interessement* of the actants/actors is accomplished winning *trials of strength* against other alternative problematizations, that is by deploying *interessement devices* to consolidate the problematization proposed, thus, to *translate* actors giving a stable and accepted role to accomplish. Which at this point act as legitimate representatives of the entities that compose their subnetworks (Pelizza, 2021).

In fact, *translation* means that people and things become different after they met. On one side, it is considered that objects constrain humans in their use and towards each other, on the other, the latter, through a redefinition of their competence, reshape and adapt the former.

But it must be stressed, detecting problematizations is never a matter of *direct observation* by the researcher: Callon didn’t dive to observe scallops’ behavior after all. He carefully read scientific articles and conducted interviews with scientists, fishermen and political figures involved. He had to avoid wasting informants experience and to trust them as spokespersons of the entities these people were accounting for: yes, inanimate matter, plants and animals have agency and can speak, but to understand their voice, and to return it into textual scientific account for human purposes, it is through humans *as mediators* of other entities that we must deal with.

So, to write an account of such relationships for the case presented here, the “ethnographic”⁹ interview (Spradley, 1979; Van Maanen, 1988) seems to be the most adapt methodological tool instead. In fact, following Latour’s example in the work on *Aramis* (1993), interviews allow to rely on and to grasp informants experience in interaction with other elements during their work to reconstruct their dispositions. Together with conducting a field analysis, which is a city yet to be assembled, and to deepen the description of their knowledge as an historical *stream of practices* (Beaulieu, 2010).

Anyway, such method of inquiry must be revisited in according to ANT principles, divided into three elements (Yaneva, 2009; 2017; Yaneva, Mommersteeg, 2020).

In the first place, as the matter of the inquiry is that of composing contexts, starting from dispersed practices and sites to be reconnected, there will be multiple places to investigate, as well as different types of actors to interview (unlike standard ethnography which is focused on a single site and a coherent social group inhabiting it, so, ironically interviews end up being more “comprehensive” than ethnography, since they allow to collect more portions of space, and to travel across multiple times thanks to the narrative format of experiences reconstructions).

Secondly, the dynamic interviews allow for a complementary immersive observation. In fact, the researcher is not required just to sit in a face-to-face dialogue, but he/she is supposed to explore and wander around, pointing and touching things, to witness the setting of practices and its affordances, the objects and items of work (in material, drawing and textual form), and obviously to watch the work while it takes/makes place. The occasion allows also to take pictures, which are an essential source of data for accounting the processes examined.

And third, as anticipated before, the questions to be asked have less to do with a semantic/symbolic interpretation of *sense/meaning*, as a connected yet distinct faculty of mind or knowledge to practices (Blumer, 1969; *contra* Clarke, Frieze, Washburn, 2018). Instead, they must be calibrated on the site and the objects upon which patterns of actions are established, with a focus on stabilized daily routine, but especially on controversies and issues that emerge and put the former in discussion (e. g. «how this thing works?»; «how you make it work?»;

⁹ Since there is no intention to describe any “ethnos”, and the term “ontography” has been questioned by anthropologists in relation to ANT (Scarpelli, 2021), and it is also conceptually challenging, I suggest renaming them as “sociographical” interviews, remaining faithful to the etymologic meaning, that is, the writing of a society.

«what are you supposed to do if this situation arises...?»). Actually, to remain in the networks, questions have to deal with *sense/direction* assembled by humans and nonhumans indeed, which generates the worlds and the knowledge of how to act in these worlds.

Thus, the questions must aim to discover and account for (Latour, 2013):

- *Doubled action*: the “riddle” that actors put into action, since every action always involves more than one entity («who or what can *faire faire* something to the other?»)
- *Direction*: the ambiguity of action which stems from the actant to the actor, and vice versa it returns to the former («how then, the *homo faber* is turned into an *homo fabricatus* by the objects he interacts with?»)
- *Judgement*: the evaluation made of the pattern, in terms of good or bad sealing of networks, accounting for their quality. Revealing problems that persist and allowing exploration of alternatives. Since “well-functioning”, undisputed, networks remain hidden as black boxes (*amor fati*, the *ontonormative* dimension, «do you want this again and innumerable times again?»)

Thus, in a particular sense, it is by such account, in a written form of text, complete with schemes of *programs* and *anti-programs* and images, that the processes of world-making put into practice by informants are manifestly put into existence in their own terms. The idea is that the inquiry should act as contribution to world-making: by description of relationship of heterogeneous entities, translated into collectivities via the *infralanguage* of semiotic materiality, the scope of the research is to account, to return, to make room and articulate the networks of the actors, to learn how to talk *in the presence of* elements which have not been considered yet. To expand political opportunities and to put into question essentialized conditions of existence and path dependent narratives of development, which disregard the *ecology of practices* they're composed of (Stengers, 2013).

5. CONCLUSIONS: THE *CORPUS* OF RESEARCH(ER)

If the proposed methodology is successful, we will obtain a way to explore multiple spaces and times to return into a unitary image by assembling. The collection of different reports from heterogeneous

informants accounts for plurality of points of view from the city, which will be organized as vanishing lines to converge into the matter of concern at its core, the ship, thus describing its *associated milieu*. Fortunately, or unfortunately, there will be no universal, ahistorical knowledge to extract from the site and to locate “nowhere”, but all detailed information about what different entities have in common is the occasion for humans and non-humans addressed to expand their network of associations, to see the others illuminate the dark background of one’s monad. By such exploration indeed, is it possible to elaborate forms for gathering actors into public arenas, to land *somewhere*.

In this sense, scientific inquiry must be committed to being *representative* in its ambiguous double sense: on the one side, it must aim to represent all possible actors involved by an alleged situation, and on the other, it must strive representing their exigences in a compatible manner with other instances. In fact, being diplomatic has nothing to do with neutrality, rather it is a matter of not being sectarian. And in this there is only to gain, given that the more the research is representative, the more actors feel involved by its account, the more is legitimated, and the more the resulting assemblage is solid and truthful.

Actually, careful research is possible only if the principle of nonviolence is respected, that is, if the means and ends are equal, or if they constantly exchange with each other. We must ask people of their work *for* their work, ask of their environment *for* their environment. Thus, informants are deemed experts in this case, they don’t lack, or are unaware, about any knowledge of their worlds, to be returned by the prophetic researcher.

Rather, it is the latter who will find himself conducting the research, through the needs and conflicts that will test him physically and emotionally in the activity of diplomacy, through the sites where he will set foot and the roads to connect them that he will be able to travel. Public sociology, which is explicitly committed to a certain group of actors and their issues, immediately identifies the researcher as a member involved in their world, ridiculing the idea of anonymity as a guarantee of scientific reliability. Whereas the *view from nowhere* is adapt just for *blasé* intellectuals and uncritical topics, since general knowledge always affect nobody. «*La majorité c’est personne*» once said Deleuze.

There’s ambiguity in this sense over the research itself as a double-faced *artificement*: is it a manipulable content to be transmitted as an academic capital, or is it a context filled with meaningful relationships?

There is enough room in a disciplinary sector and editorial offices of journals to host even the relative reduced (but irreducible) complexity of a small town, represented by research that needs to treat economy, environment, politics, and so on, together, having therefore problems to define the container – i. e., the scientific sector – for its contents? How then is it possible to maintain the ambivalence, to be a translator of this «pluralistic universe», as William James would say, without becoming a traitor? The answers may come only through the practice of research, literally an *enactive sociology* (Wacquant, 2015) on the body of the researcher. In the end, the camp itself will make him a person linked to a territory, a *dworker* hopefully, that is, a networked actor.

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