Humans, Water and Stones.
Relationship and Semi-Domestication

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1. Foreword

The here-presented text describes a peculiar case of relation among human subjects, Piave River’s water and mineral world of river stones. By the collected ethnographic data, during this field research with stone gatherers, within the course of Piave River – North-East of Italy – an original form of relation among humans, mineral world and water’s one arose, which we can interpret, nowadays, by a new and pertinent way and as a semi-domestication form. The latter is produced by the performed bodily relation, among subjects of the several natural kingdoms, here put in relation among them, although, traditionally considered, by the naturalistic vision, as separate worlds.

The here-presented ethnographic case outlines an unusual deconstruction of traditional categories of domestication and of natural worlds’ classification. It highlights some absolutely alternative in-action logics, in comparison to the naturalistic one, as, for instance, the vitalistic, animistic and fuzzy logic.

Agency of the several encountered actors is highlighted, as all active subjects, within the flow of Piave River. Since a few years, the concept of domestication is submitted to revision, together with the categories of domestic/wild and their philosophic implications. An on-going processing and relational vision has substituted a substantial and static vision of domestication, which previously resulted in the consequential alignment of hunting-gatherers, herders and farmers.

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1 This ethnographic fieldwork has been done during 2002-2003, with interviews and talks, field visiting into Piave river, materials’ collection. Many interviews have been done with the collaboration of anthropologist Barbara De Luca. The complete report of this research is in Breda (2003).


3 Harlan underlines, for instance, the weak difference between intensive gathering and cultivation. This author also stresses the deep botanical and ecological knowledge of gathering peoples (Harlan, 1987, pp. 58-62). Barrau offers a vision on human evolution, in terms that are more complex and as a continuum between two poles, for considering, as not sufficient, the mere demographic or climate explanations, in order to argue out the transition to agriculture (Barrau, 1978).
The concept of domestication, as a genetic and morphological modification of an organism’s characters, has extended to comprehend a very wide series of processes coming alongside, making it possible, preceding and influencing it. Rather than about domestication, it, thus, began to be discussed the concept of kinship, of human/animal or human/plants relation, of pre-domestication cultivation and of semi-domestication (Harris, 1996, p. 446). Researchers have therefore focused – rather than on domestication – on complex behaviours, subtending it and making it possible, activating and still keeping it active, nowadays. Domestication did not take place by the creation of the dependence of species from the human being, but it is an important part of our contemporaneity: it is a matter of human relation with the nature (Stepanoff, Vigne, 2018).

The complexity of human relations with plants and animals has therefore highlighted a series of continuities, instead of ruptures, as well as, a set of even very long-term ties, rather than oppositions, among the several activities. The concept of domestication has also undergone an extension, in time: activations forms of domestication processes have been identified since the Palaeolithic.

Fig. 1 – The Piave River.

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4 Behaviours like the relation of predation, facilitating of a species instead of another, proximity among species, and selection. An analysis of these relation modalities can be retrieved in Harris D.R. 1996. See also Breda 2000.
Therefore, it is a matter of relations established between human beings and natural world, instead of results, which reveal to be essential for the activation of environmental manipulation processes.

The here-presented text shares this critic revision process and intends to bring it farther, by showing that domestication, as human and non-human relation, impacts on mineral and water worlds, too. It goes therefore beyond the already acknowledged and discussed animal and vegetal worlds.

2. **Humanity, marginality**

This field research has been carried out in a particular stony island of the mid-course of Piave River, named “le grave”, which, from a biogeographical point of view, is a biotope, made up of gravel and sandy sediments. This is characterized by a morphology defined “of braided channels”, with a desert and steppe microclimate (Bondesan *et al.*, 2000, p. 131). The nature-culture context that I will try to outline, is a context of historical marginality, which I could deepen, during my ethnographic research with stone gatherers (locally called *cariòti*), in the bed of the Piave River. It deals about men of hunting, fishing and gathering economy, without a private property, often homeless. They based their subsistence on gathering activity of nature’s parts: Piave’s stones, which they sold to the limekilns, in the surrounding villages. The environmental history of Piave grave island is the history of an increasing privatization process, agricultural industrialization and of territory transformation towards scarcely sustainable trajectories. Nowadays, it is almost totally reduced to an agricultural landscape, fed by fertilizers, chemistry and irrigation, crossed by asphalted roads and new bridges, occupied by irrigated vineyards, luxurious mansions, restaurants, bars, etc. Nevertheless, this grave island was, instead, until the second post-war, a hunting and gathering territory, belonging to a primitive, aleatory, marginal and alternate agriculture, also shared with the activities of pasture, haymaking, hunting and gathering of spontaneous products. This island was suitable for it and often crossed by stone gatherers, boatmen, hunters, fishers, plants, wood and shrubs gatherers, shepherds, marginal peasants.

They all were men of the Piave grave, called *gravaròi*. They have concretely been men from a culture of historical marginality that anthropology defines as “hunting and gathering society” (Godelier, 1977; Geremeck, 1978; Arioti, 1980; Sanga, 1995), constituted by all those social subjects who did not fit in the proletarization process.

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3 A video about a *cariòto*, whom I could interview, in San Michele di Piave (TV), is available, at link: https://www.youtube.com/watch?v=FHCTvO_FOns, From “Restituzioni visive. Intervista a Sigirfredo Masier, *cariòto della Piave*”, by Nicola Mattarollo, Nadia Breda, Eriberto Eulisse, Andrea Mattarollo, CICA, Centro della Civiltà dell’Acqua, recorded in S. Michele di Piave, Treviso, 11-04-2011. Part of this video, with English subtitles, is deposited in the international website of the new network of Musei dell’Acqua “Global Network of Water Museums”, as a specific witness of immaterial patrimony regarding water. See https://www.watermuseums.net.

4 The process of environmental transformation of the Piave grave is also accompanied by a radical drying up of this river, on which it exists a strong debate, see. Bondesan A., Caniato G., Vallerani F., Zanetti M., (Eds.), 2000; see also the review of the CICA Centro Internazionale Civiltà dell’Acqua, *Silis. Annali di Civiltà dell’Acqua*; Franzin 2006.
The grave signified, thus, the last expressions of an oppositional, invisibles, non-worker and non-industrialized culture. One of its characteristics was a very close proximity with the natural environment in which it developed. This whole text will be a demonstration of it, as a case of semi-domestication like the here-described one could only have developed in a very close performative\textsuperscript{7} braiding among humans and environment.

3. Stones, gatherers, knowledge

In the Piave area of this research, there were 13 stones gatherers (cariòti), in total, according to the memories of the last two cariòti, whom I could meet. They did not own a land; they were generally poor, living in modest dwellings, often located within the levees of Piave River. They only owned a cart and a trawl animal. Often, they had not even a stable for their animals. They went gathering stones in the Piave River shore, by the typical modalities and contractual ways of paleo-worker and preindustrial work and they transported them to the limekilns in the surroundings, by a continuous going back and forth, every day, all year round, sometimes, performing 3 trips in a morning, while transporting a 25 quintals load, per trip.

All Piave stones are known, named and evaluated by their gatherers. They classified them, according to their colours, forms, dimensions, composition, similarities and mineral mix. They are clustered by these principal modalities of identification\textsuperscript{8}:

- By colour: turquoise, brown, white, pink, red, green, dark colours;
- By metaphor: \textit{pan fracà} (light colour stone, flat, like a flat bread), \textit{scòrtha de bis} (similar to the colours of a grass snake’s skin colour), \textit{testa de bis} (similar to the colours of a grass snake’s head), \textit{sangue de por-thèl} (similar to the colour of pig’s blood), \textit{mandoà} (stone looking like full of almonds), \textit{barbagigio} (stone looking like full of peanuts), \textit{venature di carne} (stone with veins), \textit{pestasàl} (pestle);
- By the modality identifying forms: spotted stones, striped stones.

Nevertheless, the most pervading and weighty classification is the one distinguishing all stones in mad or good.

“Good stones” (calcium carbonate) are those producing lime. In this category, it can be included the majority of white stones, prototype of stones for lime (see fig. 2). Light blue, violet and pink ones are also good.

“Mad stones”, instead, are those ones, which are not suitable for lime production. These are the ones that the cariòto does not gather (basalt, silicate, dolomite, sandstone, metamorphic mylonitic, siliceous chalk and volcanic glass, etc.). They are typically visible in the construction of stonewall houses, which are built by the so-said “stones for wall” (see fig. 3).

\textsuperscript{7} About performative paradigm deconstructing and substituting the representationalist one (based on language) and socio-constructivist, see. Karen Barad (2017).

\textsuperscript{8} Many other stone qualities were identified, which could be sound with sound, pure, non-perfect, not salted, or used to purify fishes, to play, to tell etc., but all these nuances cannot be referred in this text. To deepen this part, it can be consulted my long essay on research in Breda 2003.
The cariòti work, therefore, did not consist in an indiscriminate gathering, but implied a choice and, in order to select, it was necessary to know, which stones were “good”, i.e., suitable to become lime and to be brought to the limekilns. This is what allows us to define these subjects as “erudite”, because, by facing the technically simple work they performed, they could develop a series of highly sophisticated knowledge9 about the environment, where they lived. All this, taking into consideration that Piave’s shore, in the grave island, appears as mainly covered by white stones that could appear of highly difficult identification.

In order to find good stones to be gathered, the cariòto had to take into account the nuance game of selection made by water and of the unavoidable role of the river’s floods, by reading all the indications, given by the context, where he used to walk. We proceed, therefore, to deepen the relation between cariòto and water.

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9 About the thematic on knowledge of nature that cannot be developed here, see: Sanga and Ortalli 2003 and Breda 2000. On stone classification and knowledge of Piave River water see Breda 2003.
4. Water body

Among a varied existing local knowledge on water, dealt by my research, one that can be interesting to be mentioned for our reflexion is the representation of Piave water like “water falling in love”, as a local expression indicates (l’aqua la va in amór, in local language).

It happened during spring floods, after snow melting, up in the mountains. Piave water, at that time, used to produce a rise in the middle of the river. It received, as well, a proliferation of water plants in its bed that coloured water of green. By sticking to the stones, plants made the river’s bottom as slippery. It could be easy to explain this phenomenon, from a scientific point of view: we know that, in the middle of the river, water’s speed is higher and we can see a faster water flow. Nevertheless, the cariòti, the gatherers, could interpret it differently: in autumn, there are floods, too, but water runs “flat”, without producing a rise in the middle of the river, like in spring. According to their interpretation, in May, water was different, with other characteristics. It bloomed herbs, changed look, increased dimensions, got bigger at the middle. It was running faster, green, misleading and slippery (in fact, most experts in crossing Piave got misled, by May “water in love”, which was hiding, of water herbs, its crossing paths, essential to local men for reaching pieces of land, in or beyond Piave, when bridges did not exist).

By this metaphor, water was conceived like a big body, maybe animal, given the oestrus of the metaphor about water “in love”. Maybe, it had to do with a living feminine body, looking pregnant for its rise and fertile for the many water herbs and considering that local language defines river water using feminine gender “la Piave”. “Water falling in love” shows a strong attention for water as a body and body’s nuanced distinctions and categorisations. Water in love is a bit animal for its oestrus and a bit pregnant female, although pregnant of a plant world. Three kingdoms in water. Water world is like a lively body, making it possible the construction of a series of “kinships” and of approaching, among diverse worlds: animal, water and human ones.

At this strategy’s base, it exists a particular cultural attitude. In order to make a similar “kinship” as possible, people of grave island needed to “think as possible” that water world could “also” be like an animal one and that water could also be like a body, an animal living being, male and female, even with its oestrus, like water falling in love. The analogies of water world with the animal one presupposed a continuity and a partial similarity between the two. These two worlds are separate and non-separate, at the same time, in perfect line with the fuzzy logic.

It would be interesting to explore the possibility of an animistic interpretation of this ethnographic material, according with suggestions about relational ontologies (i.e. Bird-David, Nurit, 1999; Brightman, Grotti, Ulturgasheva, 2014; Descola, 2005; Ingold, 2011), but this will be possible only in another paper. I would also thank my peer-reviewers for this hint and for the revision of my text.

For a wide reflection and exemplification on kinship theme of plant, animal and human world, see Breda 2000. This work also offers an example of fuzzy reading of nature, by wetland gatherers, which cannot be deepen, here.
5. *Relation, semi-domestication, ecology*

We can now proceed in connecting all the analysed aspects: people, stones, water. Further, it has to be added another fundamental reflection, elaborated by stone gatherers: stone gatherer did not take place with respect to a passive, unchangeable material. The stone world, that they gathered, constitutes a product, itself, and it is the result of several agencies.

Stones were found and could be gathered only if Piave River mixed them, by its floods, whirl, and strength. This elaboration is a conceptual step of great importance, in order to understand the relation that we are researching. According to an evolutional perspective, stone gathering’s work should fit in the big categories of hunting-gathering activities, therefore, prior to domestication and Neolithic. According to the *cariòto*, instead, it is, under all aspects, an activity foreseeing forms of close relation among all environment elements, always uncertain, to redo and to take under control. This relation implies a work of observation, selection, discard, care and repetition. It is a semi-domestication requiring long terms, ages, attempts and experimentations of the use modalities and generational transmission of knowledge. If a domestication does exists, who was the domesticator, in this case? Not the gatherer human being, but the Piave River. Good stones were provided by water, which mixed stones, also by hiding some “mad” elements and highlighting other “good” ones.

A stone was a product by Piave water, a product that could get unavailable and that could disappear if the water itself did not produce it or did not work to reproduce them. If Piave had no floods, putting in evidence – by all its strength – the good stones, the *cariòti*, would have gathered the good stones and then, there would have been nothing left to be gathered, except the mad stones.

In fact, the *cariòti* met during this research affirm that a cause of their lack of work depends from Piave River, which does not flow any longer, the floods are nowadays extremely scarce, and its bed is dry. Therefore, they could not find good stones for gathering, any longer.

The depicted river is thus an active, alive and powerful river, transforming the landscape and producing work. It is a river, with which the *cariòto* fully collaborates. A mere activity of passive stone gathering would not have been feasible, nor conceivable. One has to take care of stones: to select them, to gather them, but, then, mixed again, renewed, and overturned, too. In order to take out good stones, which men alone could not find, nor produce, it is needed the Piave action. In fact, *cariòti* say that Piave has to “throw the gravel”, “change it” and “mix it”.

Piave mixes stones, by domesticating them by its flow, rendering them recognisable and domestic to the human being. In this way, the *cariòto*-man domesticated them by its words, mentioning them. He recognises them and clusters them, by mixing words, colours, forms and metaphors. Piave water shows, through its work and by these *cariòti*’s narration, one of its most unknown and secret aspects, i.e., its domesticating power on mineral world.

The result cannot be defined, from a scientific point of view, as a domestication, in a traditional sense of this term, i.e., as the creation of diverse races.
or species from the wild ones, for anatomy, morphology, physiology and psychical attitude. These are all characteristics that, in addition, have to be hereditarily transmissible, in order to acknowledge a given domestication. Further, the domestication process is never completed, but it renews itself, continuously, in connection to each flood, achieving the wished result, but, then, starting again from the beginning, to each water flow. Here, it is a matter, thus, of semi-domestication.

The conclusion of a static and evolutional vision of domestication, generating the evolutionary interpretation of societies, according to the subsequence of hunting-gathering society → sheep-farming → agriculture’s one, finally opens to a processing vision of the relation with nature. This new vision highlights a large series of processes of intense relation between human being and his/her environment, which involves not only animal and plant kingdoms, usually considered in relation to the domestication process, but also, by the here-proposed case, the mineral and water ones, commonly considered as inert and passive not-alive worlds.

A non-constructivist vision of the nature/culture relation allows us to read a series of ethnographic data, in an accurate and innovative way. These data can show us that a diverse relation with nature historically existed and that it has been activated, socially and culturally, in western world, too, although embedded by naturalism and by a vision of nature, as an object world to be objectify. This relation, instead, is constituted by continuous nuances between human and non-human bodies, by the acknowledgement of the agency of nature’s elements and full vitality of water, as well as, by the horizontal acknowledgement of all environment’s subjects, created by the attribution and acknowledgement of a vital body of water world¹², too. It includes a specific attribution, of subjectivity, intentionality, ability and agency, to non-humans and to water, itself.

Water of cariòti, likewise water and its behaviour identified by G. Mangiameli (2010) is a full active partner, a subject with its intentionality, within a common environment.

The relation stones/water/person does not lead to a dependence of nature from human being. It remains the precariousness of this relation, to be constantly renewed, and it increases exponentially the role of water, as an active subject. Humans and non-humans are in a co-evolutional process, of cooperation in life processes of a shared environment: an environment of resonance between nature and cultures, as all active subjects.

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¹² This kind of relation has been referred and analysed also in my studies on Italian wetlands, see Breda 2000.
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Umanità, acqua e pietre. Relazioni e semi-domesticazione

Una nuova visione del rapporto natura/cultura, meno costruttivista e più attenta alle intra-azioni tra umani e non umani, ci permette di leggere in maniera accurata e innovativa una serie di dati etnografici relativi ai raccoglitori di sassi del greto del fiume Piave (Italia del Nordest). Questa ricerca mostra che un diverso rapporto con la natura è storicamente esistito, ed è stato socialmente attivato anche nel mondo occidentale impregnato di naturalismo e di visione della natura come oggetto passivo. Le relazioni tra i raccoglitori, i sassi e l’acqua, invece, sono fatte di continue sfumature tra i corpi umani e non umani, di riconoscimento dell’agency di tutti gli elementi della natura e della piena vitalità dell’acqua. Attraverso l’attribuzione di un corpo all’acqua e il riconoscimento dell’essere vitale, senziente, volitivo anche del mondo dell’acqua, tutti i soggetti dell’ambiente fluviale (raccoglitori, sassi, acqua) mostrano la loro soggettività, intenzionalità, abilità e agency. Così in questo contesto è l’acqua stessa a fungere da addomesticatore di un ambiente che il raccoglitore di sassi riconosce come il suo ambiente di lavoro. La semi-domesticazione (matereiale e discorsiva) che ne deriva, mostra che la domesticazione non è un avvenimento della storia dell’umanità avvenuto una volta per sempre nel Neolitico, ma è un processo di relazioni sempre attive tra umani e ambiente. Nel caso che viene presentato sono addirittura il mondo acquatico e quello minerale ad essere implicati, con gli umani, nel processo di semi-domesticazione.

Humains, eaux et cailloux. Relations et semi-domestication

Avec le soutien d’une nouvelle perspective sur le rapport nature/culture, qui surpasse le constructivisme en faveur d’une majeure attention aux « intra-actions » entre les humains et les non humains, nous pouvons aujourd’hui lire de façon précise et novatrice une série de données ethnographiques sur les cueilleurs des cailloux dans le lit de rivière de la fleuve Piave (nord-est de l’Italie). La recherche anthropologique qui est présentée ici, nous montre qu’une différente relation à la nature est historiquement existée et elle a été socialement activée dans le monde occidental naturaliste, qui est imprégné d’une vision de la nature comme d’un objet passif. Les relations entre cueilleurs, cailloux, et eaux, différemment, sont des relations où le corps des humains et des non humains sont continuellement flou, où l’agency de tous les éléments est reconnue, et où l’eau est pleinement vitale. Au moyen de l’attribution à l’eau d’un corps vital, sensible, doté d’une forte volonté, tous les sujets de l’environnement fluvial peuvent montrer leurs subjectivités, intentionnalité, habilité et agency. Avec ces caractéristiques, l’eau peut devenir l’agence de domestication qui crée l’environnement où les cueilleurs peuvent pratiquer leur travail. La semi-domestication (matériel et discursive) qui en dérive, nous montre que la domestication n’est pas un fait accompli une fois pour toutes dans le Néolithique, mais elle est une question de relations toujours actives entre humains et non humains. Dans le cas qui est ici présenté, avec les humains sont aussi impliqués, dans le procès de semi-domestication, le monde aquatique et le monde minéral.