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Exploring understandings of human-wild animal relationships in Rajasthan, India

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Declaration

I, Linda Zsemberovszky, declare that this thesis is a result of my research investigations and findings. Sources of information other than my own have been acknowledged and a reference list has been appended. This work has not been previously submitted to any other university for award of any type of academic degree.

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Abstract

India diverse human and wild animal populations share the place with each other for long time. Their relations are dynamic, ambiguous and complex, however it is often framed as conflict in a dualist perspective of separating ‘nature’ from ‘society’ as the dominant conservation discourse does. However, there might be other expressions of these relations in located histories and situated practices. Human-wild animal relations are usually embedded in relationships people have with their surroundings. Consequently, each place has specific histories of relations according to the dynamic and located political, economic, developmental, social and biophysical matters and discourses. I explored how relations between wildlife and people emerge and how they are influenced by different discourses, practices and politics in Mohammad Phalasiya village in Udaipur District, Rajasthan. For this task I applied material semiotics and conducted semi-structured interviews in the village, examined the regulatory framework regarding conservation of wildlife and tried to explore the history of human-wild animal relations. For historical changes can help to understand the relationship between people and wild animals in their dynamism. The interaction between wild animals and the participants in Mohammad Phalasiya is ambiguous and complex. Their relationship can be characterised by avoidance, tolerance, conflict, respect, fear and killing at the same time. This results from ‘historically situated animals in relations with situated humans’, the long time of sharing the same land and resources Wild animals shape human practices and perceptions as well as humans shape wild animals’ behaviour. This involves constants negotiations of resources and spaces which are part of their everyday life.

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Table of contents

"Encounters are, by their nature, indeterminate; we are unpredictably transformed" (Tsing 2015:46), they "prompt unexpected responses and improvised actions, as well as long term negotiations with unforeseen outcomes, including both violence and love" (Faier & Rofel 2014:364).

I. Introduction

Biodiversity decline has become a major issue in the world in the last decades. Conservation, as a proposed solution for curbing biodiversity loss, made protected areas and protected bodies (as endangered, vulnerable species) a standard worldwide. Some approaches even proposed to conserve half of Earth's area and great amounts of efforts and resources are devoted to the cause (Wilson 2016). However, despite of these, this approach does not seem to be effective, the news of biodiversity decline is lauder than ever (Mace et al. 2018). In addition, protecting spaces often entails drawing boundaries between 'nature' and 'society' and this can be problematic for several reasons. It can result for instance in the eviction and displacement of both local people and wildlife, in drawing a sharp line between expert and lay knowledge, and in abandoning biodiversity rich places outside of these areas.

Current conservation approach in human-wildlife interactions focuses on ecological and socio-economic dimensions and often reducing complexities to quantifiable terms, such as species distribution and density, abundance and extinction in classificatory measurements and cataloguing (Ingold 2002; Whatmore 2002). Wild animals only figure as objects of various human desires, for instance resource for research, property for nation states, commodity for wildlife tourism and symbol for wilderness (Whatmore 2002). Furthermore, relations between humans and wildlife are reduced to conflicts which ignores the subtleties of everyday worlds of peoples, plants, animals and their complex relations to one another (Dhee et al. 2019; Whatmore 2002).

India has very high diversity of flora and fauna as well as a great richness of cultural, linguistic and religious diversity of its human inhabitants. Human respect and tolerance for animals are considered higher here than in most countries elsewhere (Miller et al. 2017). Moreover, India's history shows "few sharp divides of nature and culture, the human and the animal" (Rangarajan 2013:111). Protected areas cover 5 % of the land area, however there is a high diversity of wild animals who share space with high human and domestic animal populations outside of these areas (Athreya et al. 2013). India's modern time conservation is also based on protected area establishments and the legal protection of species outside protected areas. This has its root in colonial times when British marked areas initially for timber extraction and later as wildlife reserves. However, both the social and ecological cost of top-down, controlling conservation approaches has been high. There are local extinctions

of species, habitat loss and severe impacts of development and conservation itself on local people. For instance, increasing socio-economic inequalities, displacements, loss of livelihood and cultural diversity and loss of dignity as well (Shanker et al. 2017).

Nevertheless, it is being recognised that humans and animals had and have been sharing space for very long time and that their relationships have many forms (Ingold 1994; Philo & Wilbert 2005). Anthropology, ethnography, environmental history and geography provide accounts of a great diversity of interactions, however they are rarely used when human-wildlife interactions are discussed within conservation (Dhee et al. 2019; Ghosal & Kjosavik 2015; Lescureux 2006; Rangarajan & Sivaramakrishnan 2012). Different communities relate differently to non-human beings, often in intersubjective ways towards each other (Bakels 2013; Dhee et al. 2019; Ingold 1994). And the 'non-modern' ways of learning about the world happen through practical interaction with it (Ingold 2002).

In this thesis, I attempt to understand how relations between wildlife and people emerge and how they are influenced by different discourses, practices and histories in Mohammad Phalasiya village in Udaipur District, Rajasthan and to critically examine contemporary wildlife conservation in India. For this task I turned to material semiotics to overcome the nature/society dualism with its emphasis on situated knowledges and on the extended notion of agency. I conducted semi-structured interviews with local people and with few forest department officials to explore narratives of relationships and interactions with wild animals, examined the regulatory framework and practices of wildlife conservation and tried to explore the history of human-wild animal relations.

In this context, I formulated my objectives as follows: (1) Discovering the elements of the web of practices; (2) Observing how these social and material elements weave together, overlap and influence each other; and (3) Understanding the history of relations.

The relationship between humans and non-human animals is often framed as conflict in a dualist worldview of separating 'nature' from 'society' as the dominant conservation discourse does. However, there are other expressions of these relations in located histories and situated practices in which conflict is only a subset within a wide range of other attitudes, such as co-adaptation, mutual avoidance and fear, and tolerance. The relations are dynamic, complex, unstable, and ambiguous.

I argue for more interdisciplinary approach and the acknowledgement of other-than scientific epistemologies and ontologies to understand historically located relationships between people and wild animals. I also argue for a conservation approach which is more inclusive and just with marginalised people and objectified wild animals.

To get a broader understanding, first, I will draw upon academic works on dualism, hybridity, knowledges, discursive and material practices and agency. Then, I will discuss my methodological choices of material semiotics and the related methods, before turning to the limitations of the study and the description of the study site of Mohammad Phalasiya in Udaipur District, Rajasthan. I describe then who count in this web of practices and discuss how these social and material elements weave together by exploring everyday relations, translations of conservation discourse and the complexities these entail. Finally, I take a rather general outlook to the history of relations between wild animals and people in India.

II. From reductionism to chaos?

The conventional understandings of nature and society, even if they are on the opposite sides, are based on the same ontological assumption of dualism. There have been attempts to understand the world by ways of separating things as 'natural' and things as 'social' along the dichotomy of 'nature as real' and 'nature as imagined'. This means on the one hand, that materialists and natural scientists argue that nature is a basic determinant of social action, that is, human behaviour is the adaptive responses to or expressions of basic environmental or genetic constraints. Thus 'nature shapes culture' (Descola & Pálsson 1996; Ingold 2002). On the other hand, within the social sciences, a trend to 'denaturalise' nature aimed to show that 'nature' is relative, a cultural category, an unstable concept that is changing depending on the historical and cultural context (Descola & Pálsson 1996; Roepstorff & Bubandt 2003). What is common though in realist and constructivist beliefs that occupy these opposite poles, that both are immersed in the reductionist nature-culture (or nature-society) dualism (Barad 2003; Descola & Pálsson 1996; Haraway 1991).

Besides this common base in dualism, Barad adds that both realist and constructivist 'worldviews' assume a sharp ontological distinction of representations and entities to be represented. This means a divide between subjects and objects: the knower and the known (Latimer & Miele 2013). As a result, scientific knowledge (the knower and subject) is considered to mediate our access to the material world, to nature (the known and object) (Barad 2003). Moreover, the nature-culture dichotomy is also the philosophical root of a series of typical, taken for granted Western binary oppositions and categorical contrasts, such as 'mind and body', 'mental and material', 'individual and society', 'global and local', 'intelligence and instinct', 'human and animal', 'genes and cultural norms', 'ontology and epistemology', 'domesticated and wild' or 'traditional and modern' (Castree 2013; Descola & Pálsson 1996; Ingold 2002).

Latour (1993) argues that blind opposition between nature and culture is 'modernity's basic organising framework. 'Modernity' acts as if reality can be rigidly divided into social and natural domains to which we are accustomed because it is built into scientific, policy, media and everyday practices on political, institutional and ideational levels (Roepstorff & Bubandt 2003; Whatmore 2002). Roepstorff and Bubandt (2003) claim that science and national ideologies of nature are central in the constitution of 'modernity' which has consequences on who has legitimate knowledge (and hence power) and also on bringing

about a certain ‘nature’. For example ‘nature’ as ‘a physical place to which you can go, or a treasure to fence in or to bank, or an essence to be saved or violated’ (Haraway 2008a:158) For this has political significance that results in the rules about who, when, how, and where can one use ‘nature’ (Adams & Hutton 2007).

Nature, however, is neither real nor constructed, there is no choice between them, it is both. It defies the exclusive assigning either to the purely constructed domain or to the really real because it is a hybrid (Roepstorff & Bubandt 2003). In these hybrids the material effects and social conventions are inextricably mixed as the reality of nature is both constantly reproduced and constructed as a category and at the same time nature shapes, affects and constrains human beings and doings in a constantly shifting, dynamic manner (Descola & Pálsson 1996; Roepstorff & Bubandt 2003). The ‘diverse bodies and meanings coshape one another’ as they ‘come together with all the force of lived reality’ (Haraway 2008b). And this reality is actual practice, matters of doings and actions in which the separation of things ‘social’ and things ‘natural’ collapse.

Practice means the processes of the variety of human relations to ‘nature’, processes of doing and being in their heterogeneity and contextuality. A dynamic practice perspective, can allow understanding how ‘nature’ emerges as human perception and practice at the same time which is shaped by peoples’ history of engagement with ‘nature’ (Roepstorff & Bubandt 2003). Along the same line, Barad talks about ‘practices of knowing in being’ (Barad 2003), or as Ingold puts it the ‘ways of getting active in the environment, are also ways of perceiving it’ (Ingold 2002). Furthermore, practice might mean in Ingold’s understanding ‘how people develop their skills and sensitivities through histories of continuing involvement with human and non-human constituents of their environment’. He calls this involvement ‘organism-in-its-environment’ or the ‘dwelling’ perspective, a development within continually unfolding relationships in an attentive and multi-sensual engagement (Ingold 2002). Practice is both a material and discursive engagement. Social, economic, political and cultural practices shape the complex relationship between humans and their environment, which are both material and discursive (Roepstorff & Bubandt 2003).

Roepstorff & Bubandt (2003) use the methaphore of imagining in an active, processual form, as a particular practice. Such imagining is for instance nations’ idealised ‘nature’ image in which the notion of ‘nature’ often made to fit certain national ideologies. ‘Wilderness’ too is a construct of the modern spatial imaginary which is underpinned by a

mix of scientific, conservation, commercial and policy interests and rationales (Whatmore 2002). What belongs to the order of 'wilderness' 'is drawn together and properly assembled', named and accorded a place, thereby it tends to privilege some parts of nature at the expense of others (Cronon 1996; Mol & Law 2002). According to Ingold the world as 'nature' which is often equated with 'wilderness' can only exist for a being that does not belong there and that can look upon it from the outside (Ingold 2002). This 'above' or 'outside' view is reflected in the vocabulary of contemporary conservation science and militaristic rhetoric of eco-warriors whose mission is to defend the big 'outside'. In addition, the fear of the 'end of nature' is also embedded in this dualism in contemporary environmental politics (Whatmore 2002). However, Cronon (1996) argues that this discourse gets us back to the wrong nature because it merely reproduces categorical binaries between society and nature.

Furthermore, 'wilderness' is both an imagined place without human presence and a place without history. This seemingly untouched, pristine place however, has been created in a particular time, it is the 'grandchild of romanticism'(Cronon 1996). Adams (2003) traces wilderness' root in England or more broadly in Europe, in the romantic longing for the wild, for a precious wonderland far away from industrialisation and urbanisation. According to Cronon this utopia of our longings and desires for freedom, to escape from the 'civilised' urban life's troubles and debilitating effects comes from urban elites who benefitted most from the urban-industrial capitalism, but in turn never themselves had to work the land for a living. Hence 'wilderness' emerged as an urban fantasy of an unworked natural landscape, a privileged choice for recreational consumption without people, not as a site for productive labour and permanent home (Cronon 1996). This has also consequences for conservation today in the commercial marketing of pristine, 'humanless' nature (Robbins 2012). Thus, it leaves no place to human beings who make their living from the land (Cronon 1996; Kothari et al. 1995).

As a consequence, 'wilderness' ideology tends to devalue productive labour and the concrete knowledge of working the land. Robbins (2012) points out the role of European elite who created 'Eden' by removing people traditionally living there. Thereby the discourse erases the history of the earlier inhabitants who were kept out by force and it redefines earlier uses of the land as inappropriate or illegal (Cronon 1996). Whatmore observes that this erasure of history is the very evidence for its constructedness. Hence it entails a peculiar double measure in the access of 'wilderness': on the one hand local people are and were idealised as either 'noble savages' until they do or did something 'unnatural' or as irrational

and greedy destroyers of ‘nature’. On the other hand, tourists and scientists are allowed into ‘nature’ and conservationist are seen as heroes in the fight for ‘threatened nature’ (Adams & Hutton 2007). According to Ingold (2002) the division between humanity and nature, but also within humanity between ‘native’ or ‘indigenous’ people and enlightened Westerners (i.e. between tradition and modernity) are at the heart of most of Western thought and science.

Bruun and Kalland (1995) say that nature-culture division is maybe less categorical in the east than in the west. The former tends to be more soft, dynamic and relational rather than dichotomous, universalist and absolute. It means that there is no sharp distinction between ‘nature’ and non-‘nature’, between men and other creatures. In addition, peoples’ treatment of ‘nature’ seems to be more particularistic and pragmatic in contrast to absolute terms (Bruun & Kalland 1995). Many traditional people believe in a personal relationship between humans and other living beings because people not only belong to the human community, but a greater community of all natural living beings (Berkes 2012). Some examples of written accounts of the knowledge of interconnectedness are the Crees of eastern James Bay, Mbuti Pygmies, the Batek Negritos of Malaysia or the Nayaka in Tamil Nadu, who have a relationship of interdependence with plants, animals, spirits and landscapes, an intimate relationship with the non-human environment (Berkes 2012; Ingold 2002). Thus local knowledge challenges duality in two ways: there is no duality of nature and society in practice, and agency is extended beyond humans.

Roepstorff and Bubandt cautions against drawing an opposition between the West and the Rest in the nature-culture question because alternative orders are possible even within the West. In the light of this, the political opposition between the romanticised ‘noble savage’ living in harmony with nature and the nature-exploiting West becomes also untenable (Roepstorff & Bubandt 2003). Yet, there are “hierarchical and positivist orderings of what can count as knowledge” (Haraway 1991:188) in which “not all narratives are born equal” (Haraway 2003:64). While one is dominantly surfacing, the other is more silently present (Ingold 2002:217) as local knowledge is usually less valuable than the general expressions of natural sciences (Philo & Wilbert 2005). The domination of certain knowledges over others entails the division between the experts or elites and the lay peoples or amateurs. And this has consequences for which understanding of nature and animals is legitimate.

The radical positions that strictly insist upon the separation of the ‘two worlds’: nature and humanity, are also challenged on academic ground. In the past decades, there is a

growing understanding of the consequences of dualism, for instance in material semiotics and multispecies ethnographies. Material semiotics includes Science and Technology Studies (STS) and feminist studies which attempt to unsettle the nature-society binary and to make the constructionist-realist opposition redundant (Whatmore 2002).

Within STS, sociologist-anthropologist Bruno Latour extends the meaning of social science as the 'science of the living together' and 'tracing of associations' (Latour 2005). Associations and living together entails a variety of entities, both social and natural in an assemblage. This is one of the core points of Actor Network Theory which questions the attribution of specific capacities to specific things, thus these are distributed much more widely and unpredictably across a broad range of different things/actors, humans and non-humans alike in large networks. The reality of 'nature and society' are not seen as easily distinguishable spheres and causes, rather as mostly stable and durable outcomes and effects of struggles, translations and processes of purifications (Philo & Wilbert 2005). Feminist theorist Karen Barad insists that the relationship between concepts and materiality is intimate in a sense that neither can be explained in terms of the other, neither has privileged status in determining the other, rather they are inextricably linked (Barad 2003).

Multispecies ethnography places emphasis on "subjectivity and the agency of organisms whose lives is entangled with humans" (Kirksey & Helmreich 2010:Abstract). It attempts to examine how organisms' "livelihoods shape and are shaped by political, economic and cultural forces" (Kirksey & Helmreich 2010:545). Multispecies ethnography examines how hybrid natural-social worlds are produced through multispecies encounters by looking at mutual dependences and influences of human and non-human actors. It examines how human and non-human lives and worlds are mutually emerge through their relationship, how beings, species and categories of nature/culture get made through multispecies engagements (Faier & Rofel 2014).

Actor Network Theory, feminist situated knowledges and intra-actions, and multispecies ethnographies deal with a question of agency, who count and how. Who and what counts as an actor is a closely related issue to the question of what counts as nature and what counts as culture and these matter 'for political, ethical and emotional action' (Haraway 2003:27). In the dominant discourse, 'nature' with all its constituents (animals, plants, landscapes, and certain indigenous peoples) is considered as an object (resource, commodity, thing), while (certain) humans as the subjects. Part of the overarching dualistic thinking is speciesism, or human exceptionalism as a fundamental hierarchy of power in discourse and

practice (Collard 2015; Corbey & Lanjouw 2013). In this narrative of human uniqueness, non-human animals has been excluded from conventional humanist notions of the subject (Whatmore 2002).

Homo sapiens (and only them) are heterogeneous group of actors who have personhood, intentions, motivations, emotions, morals, consciousness and the capability of thinking, reasoning, speech and language (Bekoff 2013; Collard 2015; Ingold 1994). All the attributes we claim we uniquely have, nonhuman animals assumed to lack (Ingold 1994), so non-human animals are considered a homogenous group who are passive, automatic and mechanistic when acting, without individual character, subjectivity, experience, creativity, or history, as purely biological and instinctual entities (Collard 2015; Ghosal & Kjosavik 2015; Ingold 1994). The root of the limited meaning of agency however, is in a particular historical-geographical context, thus it does not mean it is universal. Several indigenous knowledges have less dualistic views about the differences between humans and animals as mentioned above and many worldviews reckon agency as much more widely distributed (Philo & Wilbert 2005).

Advocates of material semiotics also claim that the meaning of the social is much wider, so corals, ants, trees, whales are also social without the restricted definition of agency (Latour 2005). Latour calls this interrelated mix of humans and non-humans a 'collective' which is a process, a way how (human and non-human) entities are organised, practiced an imagined in a variety of settings (Roepstorff & Bubandt 2003). Thus agency is outcome of the emergence of social relationships, a relational and dynamic achievement which is emerging as an effect in a network of different materials (Ingold 1994; Roepstorff & Bubandt 2003). Thus, anything can have a power to act, both humans and non-humans, which denotes the symmetry of powers. This approach give non-humans and animals with it a role, a 'place', an ability to bring about changes, resist, namely the capacity for agency (Philo & Wilbert 2005; Whatmore 2002). Ingold considers agency as the mutual involvement of humans and non-humans in a continuous life process where they are fellow participants. And being fellow participants, both are persons which is a common view in non-Western thinking. Animals are conscious agents who act, feel and suffer, just like humans do (Ingold 1994).

Feminists reclaim and reframe the meaning of agency as well, as relational and situated intra-actions. Karen Barad's concept of 'intra-action' does not suppose the prior existence of independent entities with separately attributable properties (as opposed to

interaction), but rather as a mutual constitution of entangled agencies. In intra-actions the ability to act emerges from within the relationship (Barad 2003). In the relationship 'none of the partners (species of all kinds) pre-exist the relating or meeting, and the relating is never done once and for all' (Haraway 2003:12). According to Barad agency is not intentionality, nor subjectivity, it is 'not something that someone or something has'. Agency is rather an intra-acting, a "doing/being" in which particular possibilities exist for acting at every moment. This entails responsibility in 'becomings' in order to contest and rework what matters and what is excluded (Barad 2003:827). Haraway (1991:198) argues that "[s]ituated knowledges require that the object of knowledge be pictured as an agent" and by granting the status of agent to the 'objects', they emerge in many forms and becomes visible, not by discovery, but rather by conversation' (Haraway 1991:198).

Turning towards human-animal relations and assuming that social relations are not limited exclusively to humans it is not difficult to see how humans and animals have always been entangled in a variety of everyday situations. Some everyday examples of entanglements can be found within science, domestication and industry. This makes it difficult to see society as a 'pure' human society. In these mixing of humans and non-human elements technologies, animals, resources and other entities all participate actively (Philo & Wilbert 2005). The complex ways of human – non-human entanglements are shaped for instance by politics, state intervention, science, capitalism, imaginings, landscapes and the environment. These influences in turn are reflected in different relations with different characters and implications (Philo & Wilbert 2005). In addition, in human-animal relations both animals and humans shape each other, however it is often an asymmetrical power relation based on the animals' utility and adaptability (Collard 2015; Hovorka 2018; Philo & Wilbert 2005). In human-animal power relations domination, control and oppression of animals are present, but also trust and vulnerability (Ghosal 2013; Ingold 2002).

Relationship can be understood as a web of social connections in a 'collective' that is semiotic and material at the same time (Roepstorff & Bubandt 2003). Animals have been placed both into material/physical and into conceptual/discursive/imaginary places in different times (Philo & Wilbert 2005; Whatmore 2002). Conceptual places and related practices: are places and classifications particular animals have in human orderings. These depend on whose imagining, where and what kind of animals are concerned and it is influenced by the specific society. There are different knowledges about animals, and classificatory variations across localities. This also means that the lines between animals and

humans vary in different societies and has particular social, economic, political and cultural aspects (Philo & Wilbert 2005). Barad argues that discourse practices produce rather than just describe. They are 'boundary-making practices', hence they entail particular exclusions, but are open to contestation at the same time. The 'statement and subjects emerge from a field of possibilities' which are not static, but dynamic and contingent (Barad 2003).

Physical or geographical orderings means the material practices of for example fixing animals into places, where 'they should be'. These are often separated from human domains, although with differentiation such as pets, domestic animals and wildlife ordered into different distances from humans. The material, embodied realities of animals are important because they resist, transgress and escape from the ordered and imposed places based on complex spatial expectations (Philo & Wilbert 2005).

According to Roepstorff and Bubandt (2003) both nature's constructedness and its realness can help to understand how nature is engaged in a variety of practices (material and discursive). For while the constructs (discourses or imaginings) can be traced in the reproduced, specific social and institutional contexts, nature's realness have a particular history (Roepstorff & Bubandt 2003). This guided my approach, research questions and methods as well.

III. Methodology

Since methodology is the foundation upon which a study is based I elaborate on my chosen method Actor Network Theory and more broadly on material semiotics.

1. Actor Network Theory

Actor Network Theory (ANT) despite of its name is rather a method than a theory. It aims to explore how practices are webbed together which are both semiotic and material. ANT is a social analytical approach, a guiding set of tools intended to overcome the nature/culture dichotomy and for analysing the realities that actors make. For reality of 'nature and society' are not easily distinguishable, but rather stable and durable outcomes and effects of struggles, translations and processes of purifications. This means that the webs of a broad range of different actors, humans and non-humans, are also fragile. They have to be held together repeatedly which is a process of how actors stabilize controversies and purify entities to either nature or to society (Latour 2005; Law 2019).

Inglis and Thorpe (2019) considers ANT as a provocation against standard ways of thinking in social science and it is a great way of getting rid of big concepts as Nature and Society. ANT denies an external force which manipulates actors and tries to provide detailed description instead of explanation. It attempts to avoid pre-fabricated concepts and prefer the bare vocabulary of the actors' practices as in ethnomethodology. But apart from ethnomethodology, actors can be non-humans who/what do things and act. The human is seen as only one element in the networks made up of diverse entities who are not special, privileged or unique (Inglis & Thorpe 2019).

I follow (in chapter V.) John Law's (2019) steps related to material semiotics. First by listing the elements of the web of practices and secondly by observing how these elements weave together, how the social and material overlap and influence each other. I attempt to trace how they pattern themselves in networks and to explore the consequences of their patterning, that is, how actors are shaped in the webs. There are many different webs that can be followed, but I chose to pay the attention to how power is done: a performative effect of a web of many things which together make a network of dominance (Law 2019). Thus, I attempt to move beyond the unidirectional dimension of power by applying ANT in order to understand how unequally positioned actors shape natural, social, cultural processes, but at the same time acknowledging that unequal histories and forms of difference have material and political effects. This means that power involves processes of unequal negotiations,

resistances, misunderstandings and through these processes inequality is produced rather than by uniform impositions (Faier & Rofel 2014).

Following this approach (or approaches) the social enquiry is contexted and situated, thus always partial (Law 2019). As I move between the voices and perspectives of different actors across different scales and attempt to understand how meaning and worlds emerge through their encounter, the juxtaposing of different views, practices and understandings is unavoidably situated and partial (Faier & Rofel 2014).

As every method (and theory), ANT is neither without flaws and critiques. For example, political ecologist Rebecca Lave (2015) critiques ANT on the ground that it categorically denies the structural inequalities of race, class, gender and ignores the realities of domination and that the symmetry between humans and non-humans has uncertain political implications. She argues that agency becomes dehumanised to the ability to make a difference in some other agent's action which does not support emancipatory support for humans who suffer oppression (Lave 2015). Here, a further critique also lies, in granting agency to non-living entities, such as ocean waves or fax machines (Ingold 2008). John Law's response to the 'scandal of non-human agency' is that it is an analytical stance, instead of an ethical position (Law 2019).

By attributing or rather acknowledging agency to animals, critiques often point to both anthropomorphism[1] and anthropocentrism[2] in it. Philo and Wilbert (2005) suggest a hesitant, reflected anthropomorphism in which animals are allowed to feel, perceive, or make decisions like a human. They claim that the critique of anthropomorphism assumes no continuities between humans and non-humans as if humans are 'sealed off from the rest of creation' (Philo & Wilbert 2005:18). Thus, it does not allow a more inclusive attitude, the acknowledgement and creation of shared spaces in which human and non-human species shape each other throughout the still ongoing story of evolution (Haraway 2003:29). While Philo and Wilbert (2005) refrain from anthropocentrism because of its human self-reference and exclusory nature in not paying attention to other-than-human scales, Ingold says that since 'we are human the world around us must necessarily be anthropocentric'. But that does not mean a lack of participation or a utilitarian attitude, the contrary is observable many non-Western cosmologies (Ingold 2002).

Some of these critiques might be addressed by accompanying ANT with feminist

[1] The thoughts and feelings are transplanted into animal minds that we recognise in ourselves (Ingold 1994).
[2] Restricted personhood to human beings (Ingold 1994).

material semiotics. Feminist insistence on multiple situated knowledges allows a critical enquiry of dominant claims as well as unexpected openings and new connections. Feminist scholars are known for critiquing hegemony, refusing binary dualisms and typological thinking by questioning classifications and categorisations. They also insist on processes, historicity, contingency, difference and on the multiplicity of local knowledges by acknowledging particular and specific embodiment (Haraway 1991; Haraway 2003; Hird & Roberts 2011). Furthermore, Haraway argues that all knowledge claims are situated (in contrast to a view from 'above') and these partial perspectives are able to create both 'promising and destructive monsters' (Haraway 1991:190). However, even though feminists emphasise the importance of subjugated experiences, Haraway claims that there is no 'innocent position', not even the repressed standpoints are exempt of critical enquiry. Yet, feminists prefer them because they promise "knowledge potent for constructing worlds less organised by axes of domination" (Haraway 1991:192) and also for "connections and unexpected openings situated knowledges make possible" (Haraway 1991:196).

I chose material semiotics (a combination and interaction of ANT and feminist material semiotics) because it questions essential differences, insists on the uncertain and performative character of relations and the entities constituted in those relations (Law 1999). It attempts to avoid meta-language of the researcher and takes all the actors seriously, who can be non-human animals as well. It analyses and demystifies the power of the powerful and point to the methods and materials that they deploy to generate themselves and it sees the effects of power as generated in a relational and distributed manner. This assumes that nothing is ever final and the ordering and its effects including power is contestable and often contested (Law 1992). Hence, it shows that the assumptions embedded in current arrangements could be otherwise if the webs were woven differently and it opens up for empirical and theoretical possibilities (Callon & Law 1995; Law 2019).

ANT has a varied afterlife and developments, and diverse applications within and across diverse fields (Blok et al. 2019; Law 1999; Law 2019). The concrete tools and methods of ANT are not set in stone. Studies using ANT employed diverse ways of tracing assemblages and following the actors in relationships. These included interviews, analyses of different texts, such as reports, scientific articles, conference briefings, tables and figures from a wide range of disciplines. For this study I employed interviewing accompanied with participant observation, photo elicitation, and examination of wildlife regulatory frameworks and histories of conservation, people and wildlife, and their relations.

2. Semi-structured interviews and their analysis

According to Kvale and Brinkmann (2009) interviews are knowledge productions through the interaction of interviewee and interviewer. In addition to this way of looking at interviews, I chose this method because the aim was to get to know peoples' experiences, stories, histories and perspectives related to their relationship to animals and to their environment. Semi-structured interviews were chosen since they are more open-ended and allow to gain the participants' perspectives (Bryman 2016). This method is flexible, have greater spontaneity and naturalness and more reflective to emerging topics or issues compared to structured interviews (Bryman 2016). Individual interview sessions often evolved into group interviews naturally as neighbours, family members and friends joined. Bryman (2016) argues that this could be more naturalistic since constructing meanings and making sense of phenomena do not happen in isolation.

I interviewed eleven persons (or rather groups) including the sarpanch (village panchayat leader) in Mohammad Phalasiya village in November 2019. The selecting criteria aimed for class, age and occupational diversity, a range of variation. Participants were selected in an on-going manner based on their relevance to the research topic and their availability. Furthermore, officials from the Forest Department were also asked, including forest guards, rangers, an ex-field director of a Tiger Reserve and an advocate from the Standing Counsel of Animal Welfare Board of India. No personal information is used in the study which could be used to trace the respondents. I was accompanied by a coordinator-translator from Jaipur and a local Bhil teacher who arranged the discussions. The discussions' time ranged from 30 minutes to 90 minutes. The conservations revolved around development in the village, encounters with different wild animals and changes in the environment. This was followed loosely with attention to additional emerging themes. After each interview I took notes about the settings, the interview atmosphere, who was present, interesting and relevant things to the research questions and about methodological concerns. I transcribed the interviews shortly after the interviews themselves. I analysed the content of the interviews thematically with a focus on descriptions of wild animals, practices related to wild animals, encounters and the perception of the environment.

3. Photo elicitation

In addition, or rather as part of the interviews, I employed photo elicitation in order to evoke feelings and memories. Photo elicitation means inserting a photo or photos into the interview.

According to Harper (2002) the parts of the brain that process visual information is evolutionary older than that of the verbal processing. Therefore images can evoke deeper elements of consciousness than words. Photo elicitation can also have the advantage for the interviewees to overcome the repetition of conventional interviews and furthermore the dialogue is based on the authority of the interviewee rather than the interviewer (Harper 2002). In each interview, but at varying points, I showed photos of animals which were chosen based on the 'Wild Animals Population Estimation by Waterhole Method for the Year-2018' in Udaipur forest division. I attempted to choose photos which do not hint either too much emotional appeal or overly aggressiveness, which showed the animals' flank, rather than the front side. In this choice I assumed that encounters or sightings happen more often as seeing the animals passing by than facing them.

4. Participant observation

The interviews were accompanied inevitably and naturally by participant observation, although without strategic focus. Living with a Bhil family in Jhadol, travelling to and spending time in Mohammad Phalasiya allowed me to observe people and few wild animals in their contexts as they did everyday activities. In addition, having studied ecology earlier and being subscribed to emails of Wildlife Conservation Network, Rewilding Europe and Political Ecology Network, I got familiar with some conservation discourses as well.

5. Examination of policy and historical texts

I examined wildlife policy frameworks in government publications of different acts, such as the Wildlife (Protection) Act and Forest Rights Act in order to understand the legal weave of translation. In addition, I explored few reports from colonial times and books on Tribal people, Bhils, wildlife and the environment as well to gain a historical perspective.

6. Limitations

One of the limitations of the study is the language barrier that means that the received and intended meaning may differ, can be hidden, unspoken or lost in translation (Sumner & Tribe 2008). Not speaking the local language however, gave me more time for observation and some funny situations could arise when I attempted to speak some words in the local language or in Hindi anyway. In addition, probably not only the difference in languages hindered deeper understanding, but the different cultural codes and norms too. Also, the coordinator-translator's position (a middle aged man from Jaipur) seemed similarly alien at

some situations to my foreignness. However the local coordinator, a trusted person in the area, ensured smooth entry to the homes and lands of participants and helped out the coordinator-translator when local expressions proved to be difficult to understand. My positionality as a young white educated women coming from a western university probably affected the data collection in some ways too.

Some important participants were not interviewed, like forest guards in the area, but a forest ranger were. Forest guards elsewhere (than the study site) were wary of talking about their work without notifying their superiors. This made interviews with them overly complicated and I also did not want to endanger their work in any way. In addition, I was unable to use wild animals themselves as informants as Ingold (1974) rightly notes. Philo and Wilbert suggests however, 'to exercise our imaginations in trying to gain a better sense of the implications that follow for wild animals when humans start changing their life-worlds (Philo & Wilbert 2005:19). Living in a common environment, in direct mutuality or intersubjective involvement with other beings can afford shared perceptions (Ingold 1994). No doubt a partial perspective, nevertheless these approaches initiate, rather than close off (Haraway 1991:190). As Haraway says these 'pictures' are "of elaborate specificity and difference and the loving care people might take to learn how to see faithfully from another's point of view" (Haraway 1991:190).

Other constraints on the study were the small sample size and the short time spent in Mohammad Phalasiya (less than a month). This proved to be too little to gain genuine trust from the participants and to get the people familiarised with my presence. Regarding the method of photo elicitation, at most occasions it had the effect of examination, or mere check listing whether the interviewees know the particular animal or not, or is present in the area or not. Perhaps allowing the participants to choose the pictures themselves (not being shown them one by one) might have resulted in more elaborated and free discussions. Further reflection on this method is that the sense of sight was over-dominated in it, however participants sometimes evoked other senses, namely hearing and smelling in their descriptions. Linked to the sight, some elderly participants had difficulties to see the photos well because of their deteriorated eyesight.

It might have been better to focus on only one wild animal species instead of many, thus the study would probably be more in depth. My insistence nevertheless on not excluding any occurring, relatively large sized animals from the study stems from my desire for

experimentation and novelty (following as many actors as possible as Latour suggests), and also from the more practical reason of the little (interview) data on each animal species alone. On the other end, I could have chosen more and other entities as well, for example: forests, cultivated crops, weather pattern and climate, international wildlife institutional bodies, basically an endless list of actants which have the capacity to influence other actors. But then the thesis would have been much longer and more complex.

To enhance trustworthiness and the validity of the study I applied triangulation by using different data collection and analysis methods, such as interviews, observations, photo elicitation and analysis of policy instruments. To enhance both trustworthiness and validity a crosscheck of the translation could have been employed.

In terms of ethical considerations, the purpose of the study was stated before the interviews and confidentiality and anonymity was ensured. Informed consent was asked from the interview participants and was given for both the interviews itself and the recordings too. I have not experienced particular reactivity to the latter, rather a general wariness and shyness at certain topics, such as hunting and evaluating the government's work in the village. I can only hope that one day I will have the opportunity to go back to Mohammad Phalasiya and share the results of the study with the participants.

IV. About Mohammad Phalasiya

My choice fell on Mohammad Phalasiya because of the local coordinator easy-goingness, sensitivity and that he is part of the Bhil community, even if not living in Mohammad Phalasiya. I was also familiar a little with the region (Udaipur District) due to my previous visits there compared to the other place I visited before deciding on the site.

Mohammad Phalasiya is located in Jhadol Tehsil of Udaipur District. Udaipur District lies in the southern region of Rajasthan with borders to Gujarat State and Sirohi, Rajsamand, Chittorgarh, Pratapgarh and Dungarpur Districts. Udaipur District is subdivided into administrative sub-divisions of which Jhadol Tehsil is one. Large scale infrastructural projects were visible during my stay for instance in the form of the construction of National Highway through Jhadol Tehsil. The village lies 62 km southwest from Udaipur city and 11 km northwest from Jhadol by car (Fig.1.). The nearest public bus service is 10 kilometres away, although private transport is available. Only few hundred metres separates Mohammad Phalasiya from the neighbour village, Badrana on its southern side. While Oghna, its neighbour on its northwest side, lies few kilometres away. Kumbalgarh Wildlife Sancturay lies about 100 km, Mount Abu Wildlife Sanctuary is also about 100-150 km and Sitamata Wildlife Sanctuary is about 150 km from Mohammad Phalasiya. Pulwari ki Naal Wildlife Sanctuary is closest to the village, in the western direction.

Within the so-called ‘Hilly Tracts of Mewar’ lies Mohammad Phalasiya among low hill ranges with narrow valleys (naals). The small hills softly waving across the area which is sheared by River Mansi and Wakal as well as smaller streams (nallah). Mohammad Phalasiya is a long village with houses both along a stream (along which the road runs) and on the hill plateaus and slopes towards the surrounding hills. On the hillier part of Mohammad Phalasiya, the houses are more scattered compared to the denser area by the road. The position of houses on hillocks allows the residents to have an overview over their surrounding fields (Majhi 2010; Shiggadar 1936). In addition to the semi-perennial stream along the road, a reservoir provides drinking water for the animals. The northern, northwestern part of Mohammad Phalasiya is called Gata Phala, which means in the local dialect a place where there is mountain and lot of wild animals (personal communication with Prabu Lal Meghwal).

The climate of the region is sub-tropical with three seasons: a dry, cold season from November to February, then summer comes until the middle of June when the southwest

monsoon arrives which is the beginning of the rainy season. This lasts until mid-September-October when the post-monsoon period transitions to winter again. The average annual rainfall is 450-730 mm in the district, more than half of it falls in the monsoon season. The diurnal range of temperature is large in winter and summer months, the hottest months are May and June, while the coldest are December and January (Banu & Sharma 2017; Majhi 2010).

Pre-primary, primary, middle and secondary schools are available here as well as a primary health care centre. Wells with hand pump or engine pump supply the drinking water to most households, and electricity (either solar or from a pole) is available since a few years.

Mohammad Phalasiya has over 600 households and a population of more than 3000 people (*Population Census* 2011). Majority of the people (98.25%) belong to the Scheduled Tribe category, while two persons are reported to belong to Scheduled Caste (*Population Census* 2011). Most people in Mohammad Phalasiya belong to the Bhil community. Recently Mohammad Phalasiya became a village panchayat due to its growing population, overtaking the neighbour village Badrana. Thus, it is administered under the Panchayati Raj Act by the Sarpanch (the head of five villages). Mr. Prashad Dungri maintained this position after the elections in February 2020 (personal communication with Prabu Lal Meghwal).

Figure 1.: Satellite map of Mohammad Phalasiya and southwest Udaipur. Insert: India-Rajasthan.

V. Entities, interweavings, complexities and histories

1. Who counts? The elements of web of practices

The scientific species barriers are permeable in the eyes of the participants in Mohammad Phalasiya, and that is also reflected in the following grouping besides my own categorisation. The folk taxonomies of canines and felines are probably based on practical and theoretical knowledge of animals (Ingold 1994). Furthermore, even though these are generalised descriptions without space and time specificity, it is important to note that specificity and difference matter. Each individual is made up of unique genetics, history, diet, relationships. The particulars of each individual's life, variability in their lifestyles, moods and personality can be important determinants of specific outcomes (Haraway 2003; Lorimer 2010; Machery 2013; Rangarajan 2013).

a. Wild canines

Golden jackals (*Canis aureus*) and Indian foxes (*Vulpes bengalensis*) are one of the most common wild canines in India, enlisted in Schedule II in the Wildlife (Protection) Act, placed into Appendix III of CITES and as least concern in IUCN (Hoffmann et al. 2018; Jhala 2016). They can live in a wide variety of habitats, generally in dry open areas with some tree and shrub cover and are known to be tolerant to human presence, even occur in higher densities in pastoral areas in Rajasthan (Dookia et al. 2012; Lal et al. 2016; Negi 2014). Although the fox is smaller than the jackal, they are both considered opportunistic foragers, whose diet are considerably overlapping (Negi 2014). Jackals eat rodents, hares, sheep, goats and calves, carcass, occasionally birds and invertebrates, as well as fruits and vegetables (Lal et al. 2016). Jackals hunt both alone and in small groups (2-5 members) and they also burry meat for later consumption (Negi 2014). Foxes' food comprises insects, lizards, rodents, snakes, hares and fruits (Dookia et al. 2012). Participants observed that they also like human produced food, particularly fond of corn and often destroy the crop indirectly when chasing rodents and other smaller animals on the fields.

They are nocturnal and crepuscular in their activities and find their home under rocks, occupy other animals' den or make their shelter under the ground by digging. They use burrows for relatively short time during the pup-rearing time (Dookia et al. 2012; Negi 2014). In the case of fox, these burrows can be very complex with many entrances and exits

(Mukherjee et al. 2018). A pair forms the social unit, but jackals often live in extended families: mother, father, children and their so-called helpers who are the adult siblings of the parents. The latter stay with the family for few years without mating, they provide aid in taking care of the cubs and also in hunting. Foxes and jackals are considered intelligent and wily with a very good sense of hearing and a characteristic vocalisation. Foxes might ignore jackal territorial marks, but they avoid direct physical proximity with the 'bigger cousin' (Negi 2014).

b. Wild felids: sher

'Sher' is used for all big cats: leopards, lions and tigers. Participants give accounts of encounters with all three species based on the probing with the photos. They are all listed in Schedule I of the Wildlife (Protection) Act and in Appendix I in CITES, but the lion and tiger being considered endangered, and the leopard vulnerable on the IUCN list (Breitenmoser et al. 2008; Goodrich et al. 2015; Stein et al. 2020).

Leopards (*Panthera pardus fusca*) are said to be the most adaptable among the big felines, including their ability to live close to humans. They eat a wide variety of food from small rodents to dogs and young buffalos (Athreya et al. 2013; Dhee et al. 2019; Mondal et al. 2013). Mondal et al. (2013) claimed that there is no scientific information available on leopards in Rajasthan, except from Sariska Tiger Reserve. Most of the information is based on the state forest department's pugmark and waterhole censuses limited to protected areas. Kumbalgarh Wildlife Sancturay, about 100 km from Mohammad Phalasiya, holds the highest estimated leopard population in Rajasthan (Mondal et al. 2013).

Leopards share space with Asiatic lions (*Panthera leo persica*) as well (Chaudhary et al. 2020). Their main family units consist of the related females' pride with cubs, and the males who live separately (alone or in groups with hierarchies between them). They once lived from Persia to eastern India, now they are a single population in Gujarat State. Until the end of the eighteenth century they served as trophy and a symbol of royalty and of worship in Hinduism. By the end of the nineteenth century their range has reduced significantly due to habitat loss and hunting. Protection measures were taken and hunting was banned in 1955. Later they became a symbol of regional and national pride and subject of extensive scientific research. In the past two decades lions' population have increased and dispersed to human-dominated landscapes: at least 30% of the population live outside protected areas. They mate in winter and give birth in late summer. Lions can be active at night and at daytime in

concealment of vegetation cover (Jhala et al. 2019). They are sociable, often vocalize loudly, especially the males (Rangarajan 2013).

Bengal tigers (*Panthera tigris tigris*) are the icon of the Indian jungle, said to be a flagship species. They eat both wild (sambar deer, chital, nilgai) and domestic animals and have solitary nature, except when in association with the opposite sex or when the female raise cubs. They mate throughout the year and the cubs are secluded in secure overhangs and rock caves. Tigers have high mortality rates particularly when they try to establish their own territories. 18-24 month old young tigers look for vacant territories, which means that males' territories are more overlapping since they keep travelling long distances. Only females have fixed territories. Kumbhalgarh and Sitamata Wildlife Sanctuaries were said to have tigers until Independence, but now they are considered locally extinct. Usually a nocturnal animal and adapt to the behaviour of the prey species, but can change activity period to diurnal as well (Bhardwaj & Sharma 2013).

c. Mongoose

The Indian grey mongoose (*Herpestes edwardsi*) is commonly found in open forests, scrub lands and cultivated fields, often close to human habitation. According to the IUCN Red list status, the Indian Wildlife (Protection) Act (1972) and the CITES list, they are placed in least concern, Schedule II and Appendix III respectively (Mudappa & Choudhury 2016). They live in burrows, hedgerows and thickets, among groves of trees, taking shelter under rocks or bushes and even in drains. They are considered quick, agile, cunning, wise and sometimes associated with wealth. It is assumed that people semi-domesticated them in the Indus Valley Civilization to control rodents. They are very bold and inquisitive but at the same time wary: seldom venturing far from cover. Mongooses are active during the day, but near human habitations more so at night. Usually they can be seen singly or in pairs. Mongooses prey on rodents, snakes, bird eggs and hatchlings, lizards, insects, scorpions, variety of invertebrates, centipedes, frogs, toads, chicken and they also eat plants. It is known that they have a certain degree of resistance to venoms. They have been considered as the deadly enemy of serpents which has also traces both in folklore and in Indian literature. The mongoose usefulness to humans as a pest-destroyer has long been recognised. They breed throughout the year and a litter consists of two pups. The predators they need to count with, are birds of prey, snakes (especially vipers), jackals, dogs and humans (Gupta 2011; Lodrick 1982).

d. Blue bulls and cows: nilgai

Blue bull or nilgai (*Boselaphus tragocamelus*) is the largest Asian antelope in Asia who live in a variety of habitats of open vegetation types all over India. They can be found in groups of two to ten depending on the seasonal variability (Sankar & Goyal 2004). They categorised in Schedule III of Wildlife (Protection) Act and least concerned in the IUCN list (IUCN-AntelopeSpecialistGroup 2016). Nilgai females usually give birth to two calves during the rainy season and exhibit strong defence of the calves. The predation of larger predators, such as tigers, lions and leopards on nilgai is said to be negligible because of their large size and grouping habit (Sankar & Goyal 2004). They are diurnal and tend to form same sex groups during the breeding season. Furthermore, both sexes mark their territory with their faeces at fixed locations, which often accumulate in big piles, although this might not be a territorial behaviour (Meena et al. 2014). Nilgais consume mainly grass during and after monsoon, and feeds on fallen leaves, pods, flowers and fruits in the winter and summer season (Sankar & Goyal 2004). Crop raiding by nilgai is commonly reported, however some sort of tolerance is attached to them based on their resemblance to cows. They prefer ripe corn, mustard, gram, chillies, cabbage, while they eat wheat, barley, radish, potato and pumpkin in their early stages. The amount of damage is considered huge, and selective culling programme by licenced hunting permits are proposed in Rajasthan too (Meena et al. 2014).

e. Wild boars

Wild boars regarded as 'least concern' by the IUCN (Keuling & Leus 2019) and listed in Schedule III in the Wildlife Act (2006). The Eurasian wild pig (*Sus scrofa*) is considered highly adaptable and resistant to habitat modifications and hunting pressure, thus they live in a wide variety of habitats. Wild boars are considered social animals, they move, rest and eat in groups of 6-23, although adult males forage alone (Chhangani & Mohnot 2004). Their home ranges are dependent upon the distribution and availability of food and water sources, shelter, group size, habitat disturbance and predation. They have fewer sweat glands, so they are sensitive to intense sunlight, therefore they spend the day in dense cover near water and are more active at dawn and dusk. They find their food with the help of their highly developed sense of smell. These omnivorous creatures consume a wide variety of food, such as seeds, fruits, leaves, tubers, tree bark, fungi, carrion, eggs, reptiles and insect larvae. They are regarded both as key species who regulate vegetation renewal by soil aeration and as serious pests. Wild boars depend upon agricultural crops and their isolated and fragmented populations became locally abundant. The pattern of damage is more pronounced in the rabi

season, compared to the kharif period (Vasudeva Rao et al. 2017). Their head is very strong as they use it for digging the vegetation and for fighting (Chhangani & Mohnot 2004).

f. Domestic non-human animals

This grouping includes dogs (*Canis lupus familiaris*), goats (*Capra aegagrus)*, cattle (*Bos Taurus*), buffalos (*Bubalus bubalis*), and chicken (*Gallus gallus domesticus*) in Mohammad Phalasiya. Their number and presence varied from household to household from a few up to few dozens. They live in close approximity to people, supply food (in the form of milk and eggs, sometimes meat too) and some aid with their pulling force agricultural works for the people.

g. Plants

The Aravalli Mountain and the south-eastern region is covered with sub-tropical dry deciduous and broadleaf forests which include teak (*Tectona grandis*), different *Acacia* and *Ficus* species, bamboo (*Bambusoideae*), various tuberous plants and climbers (Banu & Sharma 2017; Sharma et al. 2013). *Prosopis juliflora* is considered an invasive tree species in whole of Rajasthan, which was introduced to India by the Forest Department (from the Americas) in the time of Indira Gandhi with the aim of halting deforestation.

Corn (*Zea mays*) and wheat (*Triticum aestivum*) are the two most important food crops mentioned by the participants. They are significant both for the people as staple food and for some wild animals too. They have the ability to create a site for human-wild animal encounters.

There are two cropping seasons in the region depending on the monsoon rains: Kharif and Rabi. Kharif crops (e.g. corn, rice, groundnut, soybean, mung bean, pigeon pea, sugarcane, millets) are sown at the beginning of southwest monsoon (June-July) and harvested in the autumn (September-October) (hence its Arabic name which means autumn). The other season is called Rabi, which means spring. Crops (e.g. wheat, chickpea, mustard, grams, sunflower, barley) are sown in winter (October-November) when monsoon rains stop and are harvested in March-April. Thus these plants require less water (Dutta et al. 2013).

h. People of Mohammand Phalasiya (*Homo sapiens*)

Most people in Mohammad Phalasiya belong to the Dungri Bhil clan of Bhil community. Dungri means hill in the local language (personal communication with Prabu Lal Meghwal).

Although the origin of Bhils is uncertain, they are considered one of the oldest inhabitants of the Aravallis who came before the Aryan (Majhi 2010).

Bhils are mentioned in Sanskrit literature as Bail which means 'bow and arrow man' which characterises them even until recently as they have a reputation of great skill in archery. Bhils were also called woodmen, the 'child of the forest', the people who know the shortest cut over the hills, who can walk the roughest terrain and who are able to cover incredible distances on foot (Majhi 2010; Shiggadar 1936). In the olden days, Bhils charged passer-by with tax for safe guidance in the dangerous valleys and on hills for Bhils were knowledgeable of local mountain passes and paths (Carstairs 1954; Hooja 2006). Today, many Bhil worship Hindu and local deities, while few converted to Islam. At the study region, their dialect is akin to Gujarati and Marwari (Carstairs 1954; Lodrick & Pal 2019).

Bhils are the third largest tribal group in India following the Gonds and Santals and they live in Madhya Pradesh, Gujarat, Rajasthan and Maharashtra States (Lodrick & Pal 2019; Palma 2020). Their overall population is about 12.6 million people (Lodrick & Pal 2019). In Rajasthan Bhils live in Dungarpur, Banswara, Chittorgarh and Udaipur Districts (Majhi 2010). Bhils continue to live scattered on small hillocks which settlements are called 'pal': a 'number of hovels each built upon a hillock at some little distance from its neighbour' (Hooja 2006; Mehta 1888). The Bhil joint family usually do not live together, only smaller units such as the parents and unmarried children share the same house. Class differences were visible in housing, that is, richer people have bigger, stone houses by the road and maybe in the locations of houses too. Majhi (2010) observed that inequality between Bhils increased after Independence due to development schemes with individual beneficiary programmes and reservation of jobs and subsidies.

According to the 2011 Population Census the literacy rate of the village is 31 per cent with sharp difference between men and women (45% for men and 17% for women). 92 per cent of the village population is involved in marginal work, i.e. having work for less than six month. Those who are involved in main work, are cultivators (owner or co-owner) or agricultural labourers (*Population Census* 2011). People in Mohammad Phalasiya mainly live of cultivating crops and tending animals mostly for their own sustenance, and when they have surplus they sell it. Some men in the village go for work to either Jhadol or to Udaipur. Others maintain themselves through earning their livelihood through their shops or via the few other service sector workplaces.

People have been either living in Mohammad Phalasiya for many generations or moved there more recently (usually in the past 10-40 years). The reasons for living there are manifold: being left alone, enjoying freedom, more space, the land is fertile, good surrounding, wood is available for cooking and house-making, no trouble, good greenery for their animals among others. “Our animals are there, because of that we get good milk, ghee and we earn money, we survive on that” (Participant 6) when asking how do they like staying up on the hill. Their concerns revolve around providing their families, producing food, education for the children, road and other infrastructural developments.

i. Conservation discourse in India

The dominant conservation approach in the world, as well as in India, is based on the assumption of wilderness and pristine nature which needs to be protected from various human impacts. Thus, exclusory protected areas stand in the focus of conservation which stem from the British colonial practice: forest control aimed to satisfy different colonial interests (e.g. railway construction, ship-building and planation development). The intense management of forests for timber production in reserved forests happened parallel to restricting people of their traditional practices (e.g. shifting cultivation and hunting) (Shanker et al. 2017). At the same time, wildlife was systematically eradicated (on the model of Britain and Europe), particularly dangerous carnivores and crop-raiding species (Rangarajan 2012). Later, partly as a consequence of severe decline of wildlife populations, British established reserves for hunting purposes which were the extensions of royal hunting grounds (Rangarajan 2012; Shanker et al. 2017). That time the intense production of timber continued as well as the intense ‘protection’ for hunting (Shanker et al. 2017). Agencies outside the government (e.g. Bombay Natural History Society) started to express their concern regarding decreasing wildlife populations due to for example the increased availability of guns after the First and Second World Wars (Kothari et al. 1995).

This system of intense timber production and the parallel wildlife protection for hunting came to a halt in 1972, when the Wildlife (Protection) Act was proclaimed and put into force in all states. Then, protected areas became national parks and wildlife sanctuaries and hunting of listed species was banned (Shanker et al. 2017). Programmes about protection of specific habitats or threatened species were also launched, the most known is probably Project Tiger. Following these events state governments started increasing their protected area network (Kothari et al. 1995). In recent years intensification of conservation within

protected areas and forest conversions outside protected areas for development purposes characterise the situation (Shanker et al. 2017).

The core of the conservation discourse is the assumption of inviolate, wild landscapes for biodiversity conservation (Cronon 1996). This meant and means the hindering of local management and traditional forest use practices and the displacement of people who have long histories of living in these landscapes. As a result, inclusive, community-based approaches were initiated for example the Integrated Conservation Development Projects in 1980s', and Joint Forest Management and Eco-development projects. However these approaches did not challenge the fortress type of conservation approach, only aimed to quell the resistance and to reduce the pressure on surrounding protected areas by promoting alternative livelihoods. At the same time, they ignored and undermined the diverse local governance institutions. Thus, participation has not been implemented for any protected areas, but conservation has become more exclusory and centralised (Shanker et al. 2017).

The waves of neo-liberalism reached India too and liberalized its economy in 1991. This resulted in different forms of nature's commodification, such as protected areas' conversion to tourist destinations, repositories of carbon and payments for ecosystem services (e.g. REDD+). However, the benefits either for conservation or for communities even in the best cases are uncertain. Neo-liberal policies brought changes also in agricultural production as well and the demand for land increased. As a consequence, agricultural production and state led conservation got more separated and intensified. Neo-liberal policies have been increasingly integrated into the conservation agenda in which capitalist expansion and conservation deemed compatible, even desirable (Shanker et al. 2017). Büscher and Fletcher (2015) claim that wilderness conservation is the newest capitalist phase, calling it 'accumulation by conservation' or 'green grabbing'.

The other characteristic focus of conservation (again both worldwide and in India) is the focus on certain charismatic species and on their habitats. Considerable amount of effort, time and financial resources were and are devoted to the protection of these so-called flagship or umbrella species, such as the lion, the tiger, the elephant and the sea turtle. The effects again, are questionable and in some cases were and are counterproductive (for instance the banning of grazing by buffalos in Bharatpur National Park) (Hughes 2014; Shanker et al. 2017). The focus on certain, iconic creatures diverts the attention from other beings who have less charisma (Shanker et al. 2017). Apart from the narrow focus on certain species,

conservation's approach is based on the conflict part of inter/intra-actions between people and wildlife which is built into education and the global industry built on it (Ghosal 2013; Pooley et al. 2017). In addition, there is a strong focus on forested areas while many species are adapted to human-modified landscapes (Ghosal & Kjosavik 2015; Majgaonkar et al. 2019).

2. The interweavings of social and material

In the following I explore how these elements weave together, how the social and material overlap and influence each other, how actors are shaped in the webs (Law 2019).

a. Everyday relations

The everyday relations between wild animals and people of Mohammad Phalasiya are complex and ambiguous. That wild, domestic and human animals live close to each other, inevitably leads to frequent encounters. They meet usually at peoples' land or in the forest during grazing. Participants who go with their animals to the forests and hills told that it is an everyday experience to meet with leopards, jackals or other animals. In spite of the daily encounters (or precisely because of them,) wild animals are not hostile to humans, they do not attack people around Mohammad Phalasiya. They share the same area and also are partly dependent on the same food resources which are corn, wheat, goats, buffalos and cows. They live close to each other for long time, which allowed them to observe each other, to learn about each other and to develop strategies for living together (Lescureux 2006). The interactions between them are dynamic, the result of their common history which in turn play a role in how humans perceive wild animals and how they behave towards each other (Dhee et al. 2019; Lescureux 2006).

Peoples' accounts on wild animals evoked a wide range of sensual observations. They described the sounds animal make by imitating for example lions, foxes and jackals. An elderly man in his 80s talked about the jackal this way: "I saw one speak here and another speak at the other side, in the night lot of sound come" (Participant 8). Participants also showed with their whole body the posture and movements of certain animals. One participant mentioned a special old goat smell when a big cat is present, although other people said that people cannot sense the smell of wild animals, can only know of their presence from the

changed behaviour of their domestic animals. People also observed pugmarks which proved that occasionally big cats come close to houses, the reservoir and other water sources.

People also acknowledged wild animals as actors. A middle-age man talked about wild animals' adaptability to, dependency on and their ability to respond to humans the following way:

"*Most of the daytime, we are on the hill with the animals. At that time the wild animals don't come down. But when humans come down, the wild animals understand that nobody is there and they come down towards the houses."* (Participant 6).

An elderly man expressed his concerns about wild animals, since "the forest is their house, but now the people are cutting the forest, so where they will go?" (Participant 5). When conversing about hopes and development in the village, Participant 9 asserted that animals are much more intelligent than human beings. Reciprocal fear was also expressed regarding big cats:

"When we are on the top of the hill with our animals … leopard is afraid of us that we are going to kill it, and we are afraid of leopard that it will kill us." (Participant 10)

This reciprocity indicates that wild animals are considered actors in the eyes of the local people, rather than objects.

Reciprocity could be observed regarding both human and wild animal practices too. The behaviours of wild animals shape human practices and perceptions as well as the behaviours of people affect wild animals. Wild animals have detailed knowledge of their environment, including humans and their rhythms of activities. They depend on the cropping and herding practices of people, namely the seasonality of crops, and the distribution and movements of domestic animals during the year. In the dry season for instance, when fodder for domestic animals is available from the fields, wild animals come closer to the houses and to water sources. They need to constantly compromise between abundant and available food and the risk related to it, when coming close to humans (Lescureux 2006). Therefore, most of wild animals to reduce contact with people, attack on domestic animals at night or when they sleep in the afternoon, or when people are busy with making food (Participant 5).

People also need to take into consideration the wild animals in many of their practices. The Bhils' practices regarding domestic animal tending and crop protection have

developed over years to reduce losses. The main concern is the protection of the crops and domestic animals. In terms of crops, fences proves to be little effective (and only used against their own cattle), but firecrackers frighten jackals and foxes away. During the day, well over sunrise people take their animals for grazing in the forest on the hills and come back before sunset. Domestic animals are closed into pens, however these are not completely inaccessible for big cats, yet, there was not any case when they took domestic animals from there. Some men sleep outside the house to take care of the crop too because foxes, wild boars and jackals are so fond of corn. Bhil men often stay in the hill-forest with the domestic animals for days at specific enclosed areas. These places are called ‘bara’ where male family members spend about three days in a rotational system. The ones who can afford, also hire people who stay up on the hill with their animals. For the night they tie the cows to trees, make them stay close by, preventing their straying away and set fires, thus minimizing the potential threat of predation by the large cats.

Upon encounter with these carnivores, people often change their route to avoid closer meetings or shout ‘huaa-huaa’ and lift their arms and hands above their heads. This exclamation was observed by Greenough as well. He noted that according to the villagers around Sariska Tiger Reserve, a person should 'talk to the tiger' these sounds without aggressiveness, which 'act on the tiger's mind and calm it' (Greenough 2012:741). Another strategy is to throw stones to deter these felines and to protect the domestic animals. Chasing away crop predating or domestic animal predating wild animals might have multiple purposes. Apart from actual protection, it can create fear in the attacker as well. Some participants also mentioned the use of slingshot, poison and shooting with home-made gun as well. People often met big cats when heard their domestic animal crying for its life:

“I was in the nearby mountain and one cow was pregnant and she delivered there. I climbed on the tree to take some green leaves and by that time a goat start shouting. So I came down from the tree and I saw that the leopard was holding the goat at the throat, and I threw a stone and took the goat from the leopard mouth, but I could not save it.”

As a middle-age lady recall her memories on a close encounter. The treatment of the already killed domestic animals varied, even within one person’s practice: sometimes leaving the carcass for wild animals, although they might ‘get used to the taste’ (Participant 5), so better to remove it. People acknowledged the needs of these predators and their loss as natural. In addition, the custom of offering a live old goat to gods, who roam then in the forest can be

seen as an indirest provision for wild animals as well. Thus wild animals can feed not only on wild and domestic animals, but on feral ones as well.

Further consideration is the seasonal aspect of both crop raiding and predation. Just before fully ripening corn and wheat, wild animals prefer to visit more often. In the dry season people are more alert since the food for wild animals in the forest are also dwindling. The co-habitations are both permanent and cyclical. Moreover, they have concern for the different domestic animals in regards of their specific predator species. For example, goat kids are taken by jackals, adult goats and calves by leopards ('small' big cat), and cattle by lions or tigers ('big' big cats). Thus, goat kids require constant attention and the most subject to be attacked, so they stay at the house and do not go to the 'bara'. Since mongooses have a tendency to catch chickens, people protect them with sheltering them under an upside-down basket, especially on the chicks and dogs can also help is protecting poultry. The various practices by people based on their own observations require precise knowledge of wild animals' behaviour.

Humans are understood as embedded beings within a network of non-human creatures. In this network all interact with each other in various ways as co-habiting the landscape (Dhee et al. 2019). As one participant put it: "We are living in forest with goats, cows and buffalos and 'sher' is also part of that jungle, so it is everyday encounter almost." (Participant 7). Furthermore, people did mention conflicts, but they also outlined the picture of 'annoying neighbours' (wild boars, jackals, foxes, mongooses) and feared and respected predators (big cats). Their relationship seems to be a constant, everyday negotiation with inventions, innovations and adaptations by both humans and wild animals. People perceivewild animals as co-habitants, the reciprocity and mutual involvement in each other's lives means that everyone is shaped and are actively shaping the other in these located relations. These realities, practices, perceptions and influences are probably further shaped by conservation discourse as well.

b. Translations, purifications and stabilizations

To protect nature, which is the prime concern of conservation, a wide range of different costly strategies are applied. In order to achieve the protection of both spaces (nature) and bodies (species) making boundaries and constantly maintaining them seems to be necessary. On the one hand, physical boundaries materialize in fences and stone walls, which should be

built and maintained. On the other hand, conceptual boundaries are enacted by designating the land into unprotected and protected spaces, and the bodies into non-endangered and endangered species. The placements of wild animals and humans are specified inside and outside protected forests with a strategy of legal and policy regulations.

The legal weave of ordering comes through the policy instruments that attempt to protect wildlife: the Biological Diversity Act (2002), the Wildlife (Protection) Act (1972, 2006), the Indian Forest Act (1927) and the Forest (Conservation) Act (1980). The Biological Diversity Act (GoI 2002:3) defines that "biological resources means plants, animals and micro organisms or parts thereof, their genetic material and by products [...] with actual or potential use or value. But does not include human genetic material". The Wildlife (Protection) Act (GoI 1972:Chapter V) and its 2006 amendment designates "[w]ild animal[s …] to be government property" and protected areas (for example in the form of National Parks, Wildlife Sanctuaries) to be places for nature. This entails protecting spaces and species, that is, spatial control and bodily control in which species figure as either resources or property of the state.

Furthermore, the Indian Forest Act (GoI 1927) and the Forest (Conservation) Act (GoI 1980) declare the removal and prevention of encroachment, patrolling and strengthening of check posts and barriers. Enforcing the law often entails coercion as a tactic for stabilisation. Environmental policy and legislation provide framework for a certain relationship between people and wild animals by producing 'nature', but also everyday practices. Places and bodies are purified either into the realm of nature or society in the reconfiguration of power in the name of nature (Feindt & Oels 2005).

The process of translation includes the stabilization of other actors along material and conceptual boundaries, namely local people and wild animals. To enrol people in 2006, the Forest Rights Act came into force with the aim of granting rights of harvest, cultivation and management to traditional forest dwellers and tribal communities according to customary practices. Financial instruments are also devised to offset or prevent the impacts of 'human-wildlife conflicts' in order to ally local communities. These are compensation schemes and financial support for making permanent shelter for domestic animals.

To enrol wildlife they use the strategy to provide water by regular maintenance and filling of artificial waterholes, provide carcass and sometimes even translocate prey species to protected from non-protected areas (Anonymus 2019). The discourse assumes that wild

carnivores only go beyond protected areas when the prey base is weak within it and there is scepticism about the ability of wild animals to persist in unprotected landscapes with humans. For coming into contact with people, the outcome can be only conflict (Athreya et al. 2013; Mondal et al. 2013). Thus, they need to be 'helped back' to nature, so the ones who 'stray out' from their allocated places or are 'surplus' are trapped, then trans-, or relocated to protected areas or lethally controlled, especially 'problem animals'. Wild animals are displaced in the processes of producing wildlife counts at waterholes, at domestic animal baits or sometimes with the help of camera trapping too or by pugmark counts and scat observations by the work of forest guards as monitoring. These translate wild animals' bodies, signs of presence and behaviours into wildlife population censuses, tables, figures and action plans of species and habitats (Callon 1984; Lorimer 2010). These intermediaries help the conservation practitioners to speak and act in the name of wild animals. This way the animals are silenced and reduced to numbers.

c. Complexities and controversies

The processes of purification and mobilisation fail when the boundaries are transgressed or resisted. The transgression of and resistance to the allocated places means conflict in the relationship between people and wild animals in an ontology which attempts to separate nature from culture. This has a telling evidence in the interviews with the ex-field director of Sariska Tiger Reserve who told me: "if you want to study about the relationship between people and wildlife you need to look at where is conflict...". In practice, it becomes visible that the process of translation is a struggle which is rather costly. This costly struggle applies the constant works of purification to maintain the boundary between nature and society. In this wobbly web conservation fails due to several reasons. The translations are rejected and negotiated as both conceptual and physical boundaries are crossed, resisted because the complicity of wild animals would be needed as much as that of the people of Mohammad Phalasiya. Both wild animals and people are excluded, as well as the knowledge of local people. They resist by their way of living and being, by their histories of sharing place and resources.

Conceptual boundaries are challenged for instance in considering wild animals as actors, who are capable of influencing people and coproducing places, rather than resources or property. On the one hand, even though conservation's aim is to protect wildlife, it does in a manner that it objectifies them, in which wild animals figure as symbolic resources for

national heritage, as resources for modern science, as representatives of wilderness or as commodity in wildlife tourism (Lorimer 2010; Vasan 2018). This indicates important implications for conservation, for the affects, bodies and geographies. On the other hand, people in Mohammad Phalasiya consider them as sometimes annoying, sometimes powerful cohabitants or neighbours in a relationship characterised by respect, fear, conflict and trust.

Material boundaries are transgressed as well, since there is no sharp divide between village and forest, both are fluid entities (Rangarajan 2012). Wild animals seem to ignore boundaries of National Parks, Wildlife Sanctuaries, village or forest, they "stray out" from protected areas because of territorial fights, search for mates and prey and water scarcity (Bhardwaj & Sharma 2013). The more and more intensive management of spaces and bodies can mean that both people and wild animals become less mobile in terms of movement in their environment. Territoriality (and migration) of animals are often hindered and the solution of their translocation to the forests is documented that can only worsen the situation and increase conflict (Athreya et al. 2013). Moreover, the impoverished state of the forest with little prey base and water sources was acknowledged by a forest ranger who asked anonymity when gave account. Thus, there is a constant struggle to provide these in protected areas to keep wild animals there. Further considering the prey base of wild animals, they are long dependent on human produced food and domestic animals who are easier food, than the faster running wild prey (Rangarajan 2013). Thus, there is a mix of attraction by human activities (crops, domestic animals) and non-human features and processes (forests, lakes, climate, etc.).

Furthermore, Everard et al. (2017) point out that water stress is possibly due to unstable climate, and damming and diversion of water to serve major population centres while depriving rural catchments of natural flows at the same time. Although a speculation, nevertheless, this could be the case at Mohammad Phalasiya too, where the Mansi-Wakal Lake serves Udaipur's population with drinking water through huge pipelines. It does not seem to be enough to protect intensively few pockets of spaces, and focusing on few charismatic species because complex ecosystem processes does not have clear boundaries either. Robbins (2012) highlights that exclusory, coercive conservation practices are not only socially, but also ecologically problematic. This is because production systems are rarely possible to dismember into discrete units in space and time, similarly to ecology where habitats and ecosystem processes are hard to map out precisely. These are important for healthy and resilient forests for the wild animals as well as for local people. Landscapes

should be re-conceptualized as dynamic, historic and connected and the assumption of economic growth should be questioned as well (Shanker et al. 2017).

The increased populations of some wild animal species within (and outside) protected areas are not only due to the concern and efforts of the forest department, but also (or rather) because of local peoples' and wild animals' tolerance towards each other, however, attitudes are not static and universal (Bhardwaj & Sharma 2013; Pooley et al. 2017). Wild animals are intelligent whose adapting capability to humans are significant, they interact with them and learned to live together with few problematic encounters which knowledge is possibly passed on to the younger generations (Pooley et al. 2017; Rangarajan 2013).

In spite of the boundaries, there is a controversy of who can use protected areas and how. India focuses on protected areas (similarly to many other countries) in its conservation approach which aim to minimize human settlements, agricultural and pastoral land uses (Athreya et al. 2013). As a consequence, local people's activities (grazing, collecting forest produce) are looked at as if illegal, but certain activities and peoples are allowed to transgress the boundary between nature and society legitimately, such as tourists and scientists (elites). In spite of the Forest Rights Act, locals were never really allied to conservation, partly because the state and forest administration is reluctant to grant rights of community use and management, the Forest Rights Act is hardly implemented (Saravanan 2018; Shanker et al. 2017). Shanker et al. (2017) reasons that community forest rights are a threat to state control over landscapes. Regarding the policy framework of protecting wildlife and their habitat, Bhils who avoid going to the forest not only do so because of these regulations and to avoid punishment, but because of wild animals who are dangerous and because of fear for their animals' and their own lives due to thieves, rapes, beatings or killings.

Another reason for failure can be found in the reality of law enforcement and lack of coordination between the forest departments and other government agencies (Kothari et al. 1995). While Sharma et al. (2013) see the problem in the inadequate enforcement of the laws and order by the subordinate government officials and public servants, Dhee et al. (2019) argue that the field level implementation of the hierarchically disseminated policy by the forest guards is complex and layered with interpersonal and social dynamics. The forests guards' responsibility to enforce the law on the ground who have to negotiate complaints, resistance, intense emotions and diverse interests. They also have to face harsh working conditions (e.g. spending many days on trees when there is wildlife counting far from any

facilities and their families) and sometimes arbitrary transfers without any obvious reason (personal communication with forest guards in Jaipur region).

In Mohammad Phalasiya, people have distrust and antipathies towards forest personnel who are not part of the community. Participants give account of arrogant, aggressive, accusatory attitudes towards them and high-handed treatment of their knowledge. People never ask for compensation not only because it is overly complex, non-transparent and slow, but for the fear of the officials. “We are so afraid of the government that we forget if our animal dies. We don’t go to the government department […], if you go to them they will lock us” said many people unanimously. People’s relationship with the local authorities however would be important in achieving conservation goals, especially in areas which have long history of oppression by different authorities.

A great difficulty also arise because there is a lack of understanding of both wild animals and their dynamic and historical relationship with humans. On the one hand, the approach to and observations of wild animals are difficult because of their elusiveness and mistrust of humans. Hence there is little knowledge of continuous behavioural observations over a long term on wild animals and the approaches and methods are also limited (Lescureux 2006). In addition, little research exist on crop raiding animals, such as jackals, foxes and wild boars who are less charismatic. Most of the information about wild animals is limited to protected areas, while majority of them live outside these (Shanker et al. 2017). Since most wild animals and people share space, people and wildlife should be studied together. For these entities do not exist alone, only in relation with other beings and their environment. Lescureux (2006) suggests to integrate the behaviour of the animals and the way in which they are perceived by people and also to examine the influences that animals can have on the knowledge, perceptions and practices of these people. The knowledge of those who live with wild animals might convey a different vision of the relationship to the animal. For the relationship is contingent, local and the product of shared history and place which links certain men with certain wild animals locally (Lescureux 2006).

3. The history of relations: changes and continuities

The relationship between people and wild animals is also the product of shared and complex histories and this history is inseparable from economic, political, social and ideological

history (Gold & Gujar 1997). This history is also about the land which is living, for it is composed out of the polyform relatings of people, animals, soil, water, and rocks (Haraway 2003:23). That is, animals shape and create landscapes and human lives too, as well as people produce landscapes and shape animal lives. Thus, landscapes are produced as much by humans as by non-human animals and natural forces (e.g. weather patterns) (Everard et al. 2017; Robbins 2012).

It is assumed that the Aryans drove Bhils into the interior areas of forests and hills during the Mauryan and Gupta periods (322 BCE-550 AD) when they were either tillers or hunters. In the period of AD 1200 and 1500 Rajput seized power from Bhil chieftains when founding their Rajput kingdoms. Bhils' lands were taken from them and Rajputs squeezed them further into the denser, forested areas or were forced to make some compromises (Hooja 2006). However, as Rajputs conquered tribal areas and made feudal regimes, the interaction between them intensified. Bhils often assisted Rajput kings, even strategic marriages occurred. Bhils helped Rajputs for example in providing refuge to defeated kings and supplying the besieged Udaipur as well. At later times though, Rajputs treated Bhils as beasts (Majhi 2010).

During the colonial period the British were determined to settle India's people to fixed locations because in the eye of the East India Company Raj, unsettled people posed a political threat to their monopoly of coercion and also economic loss because unsettled people were not taxable. The targets were Tribal people, forest dwellers, hunter-gatherers such as Bhils who were either confined to the forest, but without the control of its resources (now 'scientifically' managed by the British), or encouraged to abandon their 'wild ways' for settled cultivation. Those who resisted these options, were stigmatised as 'criminal tribes' (Metcalf & Metcalf 2006). Bhils were occupied mainly with shifting-cultivation, forest produce collection and hunting and faced exploitation by money-lenders, traders and local fief-holders. The land revenue settlement in the area curbed their traditional rights. Bhil cultivators were tenants-at-will, there was demand on them as forced (and unpaid) labour, they paid high land revenues and extra taxes. In addition, new agrarian and forest policies which deprived them of their traditional rights forbade shifting-cultivation and prevented their access to minor forest produce, such as honey, bamboo, etc. (Hooja 2006).

Bhils revolted several times against the oppression and exploitation of both British and princely rulers. The Bhagat movement from the twentieth century not only demanded a

united Bhil Raj, but also emphasized a Hindu way of life. Bhils also participated in the Praja Mandal movement which gained momentum in the region from 1945 as part of the Indian independence movement. These unrests often ended in executing and arresting Bhils and burning their settlements or rarely in minor improvements such as reduced land revenue demands by land owners. Poor monsoon years and resulting famines (in 1866-68, 1888, 1899-1901) severely affected them as well, in the 1899-1901 famine 25 per cent of Bhils died due to starvation and cholera (Hooja 2006).

In general, the British rule undeniably had an impact on both wild animals and people and on their relations. In the beginning of the nineteen century to 'develop' India, the British attempted to control the rural areas by the elimination of both human and animal rebels, who were often equated as bandits and beasts. The policy of extermination of 'dangerous beasts' and pests basically had two strategies: either paying bounties for killing wild animals (larger reward went for females), or using military force. The latter entailed certain local groups who were employed and paid to kill wild animals. For instance, the Khandesh special division of Bhil Crops in Maharashtra was devoted exclusively to kill big cats. After the 1857-58 Rebellion however, only British could hold unlicensed arms (Rangarajan 2012). Most Rajput rulers claimed that sport hunting was enough for controlling wild animals. The impact of sport hunting (done by many British as well) however, turned wounded animals against men and also reduced their prey base (Rangarajan 2012). In Mewar region especially, besides the big cats, wild boars were considered precious trophies and favourite game for their prowess, strength, speed, vitality, challenge, noble character and tasty meat. Only the rulers and elites were allowed to hunt wild boars who were fed corn and also made fought on stage with other animals (e.g. tigers and leopards)(Hughes 2014).

Forest officers took part in the 'vermin elimination' as well, they killed birds of preys, otters, civet cat, crocodiles and other reptiles too (Rangarajan 2012). They also had a tradition of shooting a tiger before their promotion (Sharma et al. 2013). At the same time, hunting for trophy and for game meat was allowed by the forest department in the ordered landscape of forests. By the end of the nineteen century the population of some wild animals declined significantly. Thus, some species either became protected (lions), or game instead of vermin (tiger). In the 1920s and 1930s the opposition of killing wild animals became strong for the sharp decline of many species and the considerable shrunk of the forests (Rangarajan 2012). Eventually, in 1972 the Wildlife (Protection) Act came into force and in 1973 the Tiger Project was launched. The project declared nine protected areas as Tiger Reserves, including

Ranthambore and Sariska in Rajasthna, with the assumption that the tiger as top predator would bring trickle-down benefits to other species and habitats as well (Everard et al. 2017; Sharma et al. 2013).

Villagers probably killed wild animals when necessary, but the practices of forest users allowed for co-existence. Conflicts were rare due to the avoidance and tolerance of people and wild animals, and to their adaptation to each other. However, this human tolerance was not universal for some people hunted wild animals for bounties as well. The village 'shikari' (hunter) and the clearing of forest were also effective against crop-raider, cattle-lifter and man-eater animals. Vermin-killing thus depended on local cooperation, but not all groups cooperated and agreed (Rangarajan 2012).

Specifically in Mewar region, colonial accounts reported decline of wild animals as well, but not forest shrinking until the 1930s. Mehta wrote in 1888 that 'deer of many species, many kinds of birds and fish, serpents, alligators, wild boars, hyenas, jackals, hares, porcupines, monkeys, wolves, foxes and bears are found, moreover, tigers are less common, while leopards were said to be numerous' (Mehta 1888). However, in 1936, Shiggadar reported that there is very little 'game' in the Hilly Tracts, even though he described the forests as large, dense and sparsely populated jungles. The author blamed Bhils for it and the impossibility of the enforcement of hunting prohibition (Shiggadar 1936). Currently, hunting, wood extraction, encroachment into forests are present, although most participants were reluctant to talk about these matters. They are aware that for example hunting is punishable. An elder participant talked about the confiscation of rifles and even bows and arrows and also mentioned hunters from outside who come by cars. But it is difficult to say much about these matters.

Some changes in the lives and practices of villagers occurred in the recent past. These were for instance working outside the village, having electricity, better roads and wells at the houses, some decline in the number of domestic animals because of disease, or they were sold for educating the children, population growth and forest shrinking. Participants see changes in their environment, in the vegetation and in the wildlife too. Most people perceive and reason that the forest has decreased because people cut the trees for cultivation, for building houses and human population growth. And therefore wild animals are less, although some has increased in numbers, for example boars, foxes and jackals. Although some people of Mohammad Phalasiya work in Jhadol or Udaipur as labourer to supplement their income,

they are few, the work is usually not permanent and/or these families still have their land to cultivate and their animals to tend. Hence it can be assumed that peoples' relationship to their land, their animals and also to wildlife has continuities. The colonial legacy continued as well in a sense that the assumption remained that local communities are treated as incapable of taking care of their legacy. Conservationist often see them as a threat to biodiversity without looking at the root causes (Shanker et al. 2017). However, local rural people face increasing competition from the state, elites, business and environmental organisations and lose their influence over the very natural resources on which their life directly depend (Bruun & Kalland 1995; Kothari et al. 1995).

Influences on human-wild animal relations are complex and manifold. Sharing the place and resources with each other for long time, the behaviour, the practices of both wild animals and people, their responses to the 'others'' behaviours and practices seems to affect their relations. This means their own daily experiences since the majority of people in Mohammad Phalasiya live and work in the village, on the fields and hill-forests every day and it also means their history of co-adaptation. People's perception of wildlife as actors influence their relations too, but economic pressures on sustaining their family play a role as well. Political pressures, the policy instruments to protect wildlife, the authority and the relationship with forest officials and the historical suppression of Bhils certainly affect the participants, but how these influence their relation with wild animals is uncertain. Education, local power relations and large-scale neoliberal projects might also affect the relations of wild animals and people.. Nevertheless, the relations are dynamic, subjects to manifold of influences which affect both from outside Mohammad Phalasiya, inside the village and inside of each individual actors.

VI. Summary

It is difficult to come to conclusion of the dynamic relations between wild-animals and people in this study for several reasons. The dynamism inherent in these relations means that I can only give a snapshot of it and moreover lot of un-posed questions and un-asked participants remained, so it is rather a starting point, an opening, than something firmly conclusive. In spite of my efforts, this work might be a simplification or a chaotic mess, because the different discourses, various modes of ordering, logics, style, practices and the realities they perform overlap and interfere with one another (Mol & Law 2002).

India still has a great number of wild animals embedded in shared landscapes with humans, despite of the long history of domestication, overkilling by hunts and agriculture. The mobility and flexibility of animals makes contact with humans more likely than not (Rangarajan 2013) and many people also adapt to their non-human neighbours. In fact there is no clear-cut binary along the human-animal boundary and both social (occupational) and environmental fluidity and flexibility are still features of India despite the modern colonial state's effort to limit its frontiers (Rangarajan & Sivaramakrishnan 2014).

The elements of web of practices included non-human entities as well in this study, albeit there are limitations of understanding wild animals as informants. This approach matters for analytical reasons as agency means a capacity to influence other (human and non-human) actors, as jackals, foxes, big cats, wild boars, nilgai and mongooses do impact people's practices in Mohammad Phalasiya. They also resist prescribed boundaries set between nature and society. Acknowledging animal participants as active subjects can make room for unsettling possibilities, surprises and ironies and to see that "we are not in charge of the world[, w]e just live here" (Haraway 1991:199). However, here the described behaviour of wild animals relies on people's perceptions and practices and on biological studies which inevitably narrows the view since I was unable to use wild animals as informants (Lescureux 2006). Still, I think we need to learn how to be attentive and sensitive to others' 'languages', need to learn to understand with new approaches and methods which might include the situated knowledges of others.

These elements weave together and influence each other as the social and material overlap in practices of everyday relations. The interaction between wild animals and the participants in Mohammas Phalasiya is ambiguous and complex. Their relationship can be characterised by avoidance, tolerance, conflict, respect, fear and killing at the same time. This

results from ‘historically situated animals in relations with situated humans’, the long time of sharing the same land and resources which allowed them to observe each other and to learn how to live together (Haraway 2008b; Lescureux 2006). People’s perceptions and on the ground bodily and sensual experiences are inherently entangled, they emerge in the specific relational context of their practical engagement with their surroundings (Ingold 2002). Environments and animals help make people, as much as people help make them (Hughes 2014). The engagements among unequally positioned groups are dynamic and although the relations of power are unequal, nevertheless they are also unstable (Faier & Rofel 2014). Wild animals shape human practices and perceptions as well as humans shape wild animals’ behaviour. This involves constants negotiations of resources and spaces which are part of their everyday life.

Everyday relations effects and are affected by conservation discourse’s purification of nature and society which implies boundary-making and placement of people and wild animals both physically and conceptually. To stabilize both people in Mohammad Phalasiya and wild animals different costly strategies (works and resources) are applied such as policy instruments, boundary-making and maintenance, coercion, translocation or punishment if at the ‘wrong’ place, feeding and providing water for wild animals who are translated to either resources, property or numbers. This worldview of separating the social from the natural inheres conflict as the only way of relationship between wild animals and people because when the processes of purification fail, when the boundaries are crossed, it means conflict.

The works of purification fail because in the practical reality of wild animals and the people in Mohammad Phalasiya nature and society are inseparable. Even though India has one of the most strict policy framework in the world regarding wildlife protection, where no hunting is allowed and tribal and forest-dwelling communities are considered, but unfortunately the latter are not implemented and the former considers wild animals as objects, because it is imbued in the nature-society dualism. By rendering relations (as being is relating) into ‘things’ or property has far-reaching consequences because this is how we understand the world and our relationship to it (Barad 2003). Dualism not only underplay the role of animals, but also ignores the complexity of ecological histories and the dynamism of human-non-human relationships (Ghosal & Kjosavik 2015; Robbins 2012).

Furthermore, the alliance of people and wild animals would be needed to achieve conservation goals, but instead, they are excluded either from protected areas or from ‘human-dominated’ places respectively. This kind of land appropriation brings about a

controversy in which the elites can use these places, while local people and their activities are considered illegal and a threat to conservation. This exclusion further marginalises local people, the very people who live and share space with wild animals and who actually 'provide' food for them in the form of crops and domestic animals. Thus, both human and non-human communities are marginalised (Ghosal 2013; Kothari et al. 1995; Philo & Wilbert 2005). The division of space also entails a more intensive management of protected areas, and a more intensified land-use outside protected areas which has little value for conservationists, but serves the neoliberal growth model (Shanker et al. 2017). According to Shanker et al. (2017) this accumulation is in fact the root of biodiversity decline that causing both socio-economic inequalities and ecological decline. This calls attention to the need to shift from protected area centred to landscape level conservation approach and to integrate agricultural, industrial and conservation policies as well (Athreya et al. 2013; Kothari et al. 1995; Shanker et al. 2017).

Wild animals and people of Mohammad Phalasiya seem to know better that landscapes do not fit binaries of natural and social, they are both at the same time. The interdependences and hybridity break up the essentialist, purified entities and categories, however worlds are built around these categories and the material ways of them unequally shape people's and animals lives (Faier & Rofel 2014). The enforced, hierarchical and techno-managerial conservation actions, the hostile relationship between the forest guards and local people only increase resentment and resistance among the participants.

Looking at human-wildlife relations exclusively as conflicts fails to notice a more complex and dynamic range of relations. Conflicts are part of relationships, but they often inhere respect, reverence, mutual fear, care, adaptation, tolerance, mutual avoidance, trust and domination, even at the same time. To realise a wider range of entities, responses, relations and to think less dualistically we can turn to learn from people and communities who live with wild animals in their everyday bodily practices and experiences. It is a way of life for them, neither a romanticised view or a conflict it is all about (Rangarajan 2012).

There is a lack of knowledge on the elusive and the less charismatic wild animals, as well as a lack of attention on the relation between people and wild animals. The short-term, de-contextualised and overly quantified approaches of natural sciences, economics and ecology alone cannot grasp the complexities of human-wild animal interactions (Lescureux 2006; Pooley et al. 2017). However, they are more and more complemented with studies of

environmental history (how human and non-human histories intersect), ethnography, anthropology, ethology, politics, human-animal geography (which focus on human ordering(s) of space: boundaries, territories), multispecies ethnography with its emphasis on mutual influence of humans and non-human animals (instead of a one-way relationship), environmental history (Lescureux 2006; Pooley et al. 2017).

The complexity of relationships occurs through the understanding of interactions and their evolution. This requires a parallel and long-term study of wild animal and human populations, of how animals change (or rather emerge) as well as people from the interactions. Because relations are constitutive and they (humans and non-human animals) are mutually adapted partners in 'naturecultures' (Haraway 2008b; Lescureux 2006). Only long term continuance of interactions of certain people and certain animals at certain places can give knowledge of the dynamism inherent in them (Lescureux 2006). Instead of excluding local people's knowledges and worldviews, it would necessary to explore how wild animals were and are perceived, the diverse ways of communities and individuals' responses about them by looking at the particular relationships that evolved between different species (including humans) in specific places (Pooley et al. 2017). The long-term living together and studies of such are a process of continuous learning and adaptation to each other based on respecting others and their knowledges (Haraway 2008b). Because different epistemologies enable different realities which are embedded in historical contexts (Faier & Rofel 2014).

Historical changes can help to understand the relationship between people and wild animals in their dynamism. In general, Bhils' suffered historical injustices from both Rajput rulers, zamindars (land owners) and colonial orders. Despite of some strategic alliances, Bhils were treated inferior, exploited and were denied their traditional rights to forest produce as well. In addition, they were worst affected by the famines linked to the poor monsoon years. However, they bear these injustices not without resistance and revolt. Parallel to their suppression, wild animals were also targets of colonial ordering. The British colonial policy of extermination of 'dangerous beasts' resulted in serious decline of wild animals' populations. Then, some of them got 'protected' status instead of vermin for trophy hunting. Villagers, local people probably killed wild animals as well, but rather as a necessity, than a wiping out strategy. The modern Indian conservation approach is a combination of ideologies from the colonial legacy of extractive production to the romanticized nature notions of elites (Shanker et al. 2017).

Participants in Mohammad Phalasiya give account of population growth and related it to shrinking of the forest which in turn is the cause of the decline of wild animals' populations in their eyes. The historical contexts of the people and wild animals at Mohammad Phalasiya were not closely examined, thus the research question of what is the history of these relations lack site specific understanding. Nevertheless, I considered necessary to include a historical perspective because encounter and relations are historically embedded, even if in general manner.

I finish this work with Donna Haraway's precise words:

"There can be no environmental justice or ecological reworlding without multispecies environmental justice and that means nurturing and inventing enduring multispecies – human and non-human – kindreds. Kin making requires taking the risk of becoming-with new kinds of person-making, generative and experimental categories of kindred, other sorts of 'we', other sorts of 'selves'. Kin also means cultivating responsibility for each other. Many peoples, especially indigenous peoples understand that environmental justice is and always has been a multispecies affair. Practices for thinking-with, for knowing-with, for knowing-otherwise, for not-knowing, for becoming-with each other a 'we' capable of responding, rather than knowing in advance in busy and competitive functionalism. A livable world is remade with disregarded human persons and other displaced beings, or not at all. A livable world also requires making ontological room for beings that do not fit one's cast of characters" (Haraway 2018:105).

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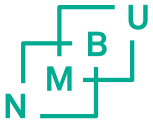

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