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ROCK ART FROM WEST AND SOUTH WEST ARABIA: SOCIO-CULTURAL ANTHROPOLOGY'S INSIGHTS FOR THE REGION'S EASTERN TRANSITION ZONES

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ABSTRACT

Socio-cultural anthropology has a fairly long record of contributing expertise to the analysis and interpretation of rock art, although that record was somewhat neglected in recent times. The present paper offers an updated usage of that legacy from a particular methodological angle, by putting it into practice through comparative means for South West and West Arabian evidence from the hilly and mountain parts of the region's transition zones to the east. That evidence was primarily established during an ethnographic documentation and field work project of the late 1970s and early 1980s. The visual results from this as well as from other projects presently are systematically classified and analyzed in Vienna, in the framework of the Institute for Social Anthropology's "Visual Archive for South West Arabian Ethnographic Materials" at the Austrian Academy of Sciences. This article builds on a first survey of about one dozen examples of rock art cases, but selects only a couple among them considered to be fairly representative of the overall collection. The empirical sample then is addressed by means of comparative insights from socio-cultural anthropology. The sample primarily represents visualizations of hunting scenes. The analytical and methodological tools best suited for discussing it are derived from anthropology's expertise about the contexts and relevance of human hunting activities under early scriptural conditions. As long as few other methods of dating can yet be applied to most of the materials in this particular sample, and parallel to possibly more reliable ways of dating in the future, precise conceptualizations about the contexts and features of hunting under early scriptural conditions will remain indispensable.

KEYWORDS: Rock art from southern Hijaz, eastern Asir and north Yemen; hunting in historic South West Arabia; eastern mountain hunting scenes in South West Arabia's rock art; contexts and features of hunting in South Arabia's pre-Islamic and early Islamic history;

1. INTRODUCTION

This paper provides a few conceptual and analytical anthropological tools and insights for assessing the samples of rock art documentation that are currently scrutinized and digitally stored in the "Visual Archive for South West Arabian Ethnographic Materials" at the Austrian Academy of Sciences' Institute for Social Anthropology in Vienna. The documentation was originally compiled in the form of an unsystematic collection of by-products to ethnographic cooperation projects in West and South West Arabia (southern Hijaz, Asir, and northern Yemen, Fig. 1).[1] With the author's continuous participation since 1980, those cooperation projects were directed by Walter Dostal (1928-2011), carried out between 1978 and 1983 by teams supported, in the Yemen, by the Centre for Studies and Research in Sanaa, and in Saudi-Arabia, by King Saud University (then: Riyad University). Main ethnographic results of those projects were published by Dostal (1983, 2006) and by Gingrich and Heiss (1986a), but except for two examples from northern Yemen (Gingrich and Heiss 1986a: 166 and 177), most of the corresponding rock art has not been published until today. Due to those unsystematic research contexts in their time, the original documentation of this particular archival material could not yet be accompanied by any of today's standard documentation procedures, such as precise GIS location data, scientific sampling and measurement of material components, and the like. – These limitations of original source documentation provided a first main set of reasons to fully use the available comparative materials provided by socio-cultural anthropology for contextualizing this visual evidence. The present paper sets out to briefly summarize some of socio-cultural anthropology's record in the analysis of rock art, since this has not yet been widely used in south west Arabian research in this field. In this way, a number of basic insights from socio-cultural anthropology are suggested not merely as useful devices of analysis and interpretation for the particular sample in the Vienna archive, but are also offered as contributions to wider discussions of rock art in pre-historic and early historic South Arabia. In view of this second set of reasons the present article discusses a few general methodological premises, in order to then move on to a preliminary specification of the present sample's main settings, locations and implications. From there, the final and main part of this article presents a few models for conceptual analysis related to pre-scriptural and early scriptural contexts of hunting in West and South West Arabia.

Figure 1. South West Arabia (from: Gingrich 2012: 142)

2. SOCIO-CULTURAL ANTHROPOLOGY'S RECORD

In its various linguistic and national contexts, the academic discipline of social and cultural anthropology has in fact a fairly long record of studying rock art. That long record, however, often was interrupted by breaks when mainstream attention shifted to other topics, which is one reason why at present anthropologists' interest in this field is low: the field is again moving through one of those breaks, while the main interests of a majority of its scholars is focusing on contemporary rather than on historic or pre-historic topics.

Whenever anthropological interest in rock art was thriving, it also has to be admitted that the academic harvests were extremely mixed and often biased in terms of those theories that inspired anthropologists' research in the field. I shall confine myself to a few examples here.

During the first half of the 20th century, "Culture Circle Theory" (*Kulturkreislehre*) was a particularly active strand of German-speaking anthropological research in African and Australian rock art. Culture

[1] This text uses a simplified version of IJMES transliteration from Arabic, unless common Anglicized forms are available.

Circle Theory basically sought to identify and to interpret cultural areas or provinces ("circles") by asking about the spatial dissemination of cultural features, and by deriving relative chronologies from that. One of the founding fathers of this approach was Leo Frobenius (1873-1938), who subsequently shifted his attention away from identifying "circles", on to the analysis of visual contents by means of phenomenological procedures which he labelled cultural morphology. In a number of expeditions to North, West and Southern Africa (between 1928 and 1935) he and his Frankfurt collaborators were the first to document vast sets of rock art examples in these regions (Doohan et al. 2016). The members of that Frankfurt school of cultural morphology sought to identify (along stages of adolescence, maturity, and old age) a culture's "inner soul" through its expressive visualizations in rock art, while seeking to determine which of its elements might have been absorbed from the outside. Some individual insights gained through this approach may perhaps still be inspiring today. From a general present day perspective, however, that philosophical and theoretical dimension in the Frankfurt cultural morphology school's activities largely is speculative and obsolete. – Something similar has to be said about the representatives of another strand of "Culture Circle Theory": Viktor Lebzelter (1889-1936) documented rock art in and from southern Africa during the 1920s to substantiate the Vienna-based school of "original monotheism" (Lebzelter 2005). This approach sought to prove that early forms of rock art testified to such spatially manifest stages of humanity when art still might display signs of reference to God's original Creation. Both of these two strands of "Culture Circle Theory" also were actively interested in Australian aboriginal rock art. In particular, Frobenius shortly before his death still inspired and equipped the German rock art expedition of 1939 to northern Australia under Helmut Petri and Andreas Lommel (Kohl and Platte 2006; Gingrich 2017). That expedition yielded particularly rich results – in spite of, rather than because of, its theoretical guiding lines whose neo-romantic and speculative origins were more or less acceptable to the Nazi regime during its pre-war period. This short overview of the Frankfurt and Vienna schools' engagement with rock art in Africa and Australia therefore indicates a set of specific theoretical motivations that inspired their work in this field. At the same time, the actual merits in their work were not any substantiation of their theoretical orientations but rather an enduring, dense empirical documentation of rock art in regional contexts.

Before and after the middle of the 20th century, this empirical emphasis in anthropological studies of rock art was further elaborated and differentiated by representatives of the last generations of the "Boas school" in US-American anthropology. Franz Boas (1858-1942) had brought strong "regional" empirical interests from his native Germany to the United States where he became a founding father of mainstream anthropology. His proximity to historiography and to the natural sciences both were helpful, however, in avoiding speculative theorizing while embracing the type of "four field approach" that became typical for US American anthropology until the 1960s and 1970s. Basically, it pursued the practice (and training) of a unified anthropological field with the four subfields of physical, archaeological, linguistic, and cultural anthropology. Within this general orientation, local and regional historical research in indigenous cultures gained top priority. This resulted in a useful albeit rather narrow focus on regional history along interdisciplinary lines, without too much consideration of wider external influences or systemic transformations. Some among Boas' students and followers – such as Clark Wissler or William Sturtevant – further enhanced the regional historiographic approach by elaborating "cultural areas" and "ethnohistorical" methodologies (Silverman 2005). It was within these wider lines of thought in cultural relativism, as Boasian approaches came to be labelled, that a certain amount of useful anthropological rock art studies also found their place and their recognition. Among various other regions of Native American habitat (e.g., Keyser 1992), this renewed interest in anthropological rock art studies became particularly relevant for the indigenous regions of the US Southwest with their apparent sequences of pre-Columbian and modern indigenous presence. "Kokopelli" rock depictions and their interpretations by means of Hopi and Pueblo mythologies are especially well-known cases in point (Slifer and Duffield 1994). With all their inherent methodological limits, they demonstrate how myth analysis and oral history may serve as additional tools for contextualizing and interpreting prehistoric and early historic rock art.

Without ignoring the merits and advances achieved by those earlier anthropological contributions, my own approach – without any claim to originality – is primarily informed by "global, postcolonial, and transnational" currents in today's anthropology. Although these currents tend to prioritize research in the contemporary world, they have simultaneously encouraged to an increasing extent comparative methodologies (Gingrich and Fox 2002) that are also substantially relevant for anthropology's contributions to prehistory and history. In addition, the accompanying new realism that seems to have become dominant in today's anthropology con-

tinues to emphasize evidence-based insights. It is these comparatively-based, evidence-focused premises that inform the following argument. From an epistemological perspective, the argument maintains that once a sufficiently saturated degree of empirical confirmation is reached and crossed, then no further empirical confirmation is required for each and every additional case that is encountered by research.

For example, we may never know to any satisfying degree what exactly humans tend to dream, and how they interpret their dreams. We nevertheless know to a sufficiently saturated extent from the research of psychologists and anthropologists *that* all humans do dream. There is enough comparative evidence available to take this as an established fact from the outset. We therefore can also take it for granted that the inhabitants of say, Sanaa in the 12th century had dreams, and by consequence we do not have to prove or question that fact *per se*. Along similar lines of reasoning, we know that no human society and culture is known in past or present that did not entertain some set of rituals. Social sciences and the humanities continue to inquire about the precise features, contexts and causal connections for rituals and the social forms in which they take place, but the basic fact is sufficiently well established along all possible comparative dimensions: there simply is no human society in past or present without any rituals. Again, the fact itself can be taken for granted, once we have agreed upon the meaning of the term. By consequence, there definitely were rituals also for the cases of say, tribal leaderships in Upper Yemen during the 9th century CE, or for societies engaged in hunting across South West Arabia's eastern hill and mountain zones for the 1st millennium BC. It goes without saying that these comparatively saturated, widely established forms of insights are by definition evidence-based, and therefore are far away from any speculation. – Beyond these basic anthropological insights on humanity in general, by reference to dreaming and to rituals, there are also quite a few insights by anthropology on the more specific issue of hunting among humans. Based on the epistemological points outlined here, I shall return to these comparative insights on hunting in the final section.

3. SAMPLE CONTEXTS AND EXAMPLES OF INTERPRETATION

It has already been indicated that the Vienna Institute for Social Anthropology's visual archives contain rock art photographs from four ethnographic field work campaigns, carried out by Dostal and Aloshban (1979), Dostal, Gingrich, Aloshban et al. (1980/81), Dostal, Gingrich, Heiss, Aloshban et al. (1981/82), as well as by Gingrich and Heiss (1983). In sum, these rock art documentations relate to about one dozen different sites. Apart from the two Yemeni examples already referred to (with "Qahtani" inscriptions: Dhat al-Rada' 1 and 2), [2] I am not aware that any of these sites and their corresponding art were ever published by other authors before or after those field campaigns of the late 1970s and early 1980s.

The actual time of documentation is identical with the "ethnographic present" that is employed in this article. The dozen sites documented in the Vienna archive share three main dimensions: 1.) certain thematic features, 2.) general geographic position, and 3.) specific types of location within their immediate environment.

1.) Thematic features: The documented visual rock art in this archive comes along with merely two cases, among a dozen in the entire sample, of apparently contemporary graffiti inscriptions – i.e. from the same time period in which the visual art was produced. One of these two sets of graffiti (in southern Hijaz) is in Arabic, the other are the two Dhat al-Rada' Qahtani graffiti (Gingrich and Heiss 1986a: 166) from the late pre-Islamic period. The other ten cases were found without any visible connection to graffiti or other scriptural evidence. The visual subjects and elements represented in the sample's sites usually include more than one visual "theme". Wild game (zoomorphs), armed single persons or several humans (anthropomorphs) fighting each other are fairly recurrent. Domesticated animals (dogs as well as donkeys or horses, but rarely any camels) are occasionally depicted. The one overarching theme, however, that is represented in all rock art of this sample are hunting scenes. These hunting scenes represent one or several persons with arms who are chasing or attacking a big wild animal. The hunters usually are accompanied by a dog, or several of them. (These dogs mostly are visualized in small sizes, and do rarely indicate any apparent resemblance to Saluki.) One or several of these hunters may be riding a horse or donkey, but more frequently they are approaching by foot. The hunters' prey, assessed by size and horns' shape, are either ibex, or alternatively wild goat, and in a few instances antelope. Hunting therefore is the dominant theme in all of the sample's visual representations. – The scriptural evidence accompanying a couple of these examples indicates, as a very rough guideline, an overall time frame be-

[2] Dhat al-Rada' is located to the north-east of Sa'da, half way between J. Tulummus and Umm Layla, along one branch of what commonly has been referred to as the Frenkincense route, Gingrich and Heiss 1986a: 14.

tween the late pre-Islamic and the early Islamic centuries (i.e., 4th-9th century CE) – although several of these rock art examples in fact could be much older and/or more recent than that. – Local hosts would usually draw our team members' attention to the existence of these sites, and one of them would guide us there. They never were able to establish any connection between the sites and some kind of local myths, legends, or oral history, except for the usual, vague reference that these sites must have been left over by "Bani Hilal", i.e. unknown earlier residents who had vanished before the locals' ancestors had settled in the region. In itself, this would refer to periods before, roughly, the 12th century CE.

2.) General geographic position: It was already indicated that this one dozen sites are located in southern Hijaz, north east Asir, and northern Yemen (Sa'da province). Two of them are located on the eastern fringes of upper Yemen's northern plateau, therefore to the east of that region's highest mountain ranges. Two others are located in a barren and almost inaccessible region to the east of al-Namas (north Asir). About eight examples are from various sub-regions of southern Hijaz, all of them from Bilad Ghamid's areas to the east of the escarpment range. None of these sites is anywhere close to today's inhabited areas. Some of these sites' wider environments serve as occasional grazing grounds for the livestock of agriculturalists with permanent settlements at some distance, while others are sporadically used grazing grounds for seminomadic groups. The general geographic position of all of these sites therefore can be classified as lying in the elevated, barren, and uninhabited parts of the transition zones between western Najd and the slopes and wadis leading up to the Sarat mountain ranges, or to the plateau respectively. The overall environmental context thus may be labelled as belonging to West and South West Arabia's barren eastern transition zones toward inner Arabia (Fig. 1).

Given today's climatic conditions and wildlife movements' contexts these eastern transition zones still represent areas of modest wildlife occurrence, despite the general decrease of wildlife in the area during recent centuries. Although any precise dating for the cases of rock art in this sample is still unavailable, we have used the 4th-9th century CE time span as a preliminary guideline informed by scriptural evidence from two cases. One may infer that climatic conditions and precipitation could perhaps have become somewhat cooler in these Middle Eastern sub-zones to the Eurasian "Late Antiquity Little Ice Age (LALIA)", according to some insights of climatic history of relevance for Arabia in that period. By consequence, the occurrence of wildlife would have been more widespread and more intense, compared to a millennium later. Depending on actual annual precipitation, seasonal ranges of big wildlife migration have to be taken into account at any rate (Uerpmann 1987). In horizontal directions, some populations among steppe and lowland animals, such as antelopes, would move during the driest seasons from the inner steppe regions to the somewhat moister west, i.e. to the lower areas of West and South West Arabia's eastern transition zones. Simultaneously, mountain animals such as ibex and mountain goat would move upward during the driest seasons of the year. By consequence, antelopes represented possible hunting game in the lower parts of the eastern transition zones during the driest periods of the year. Ibex and mountain goats were hunting game in the high mountain terrain of the same regions during the dry season, but could also be spotted in lower terrain during cooler seasons.

3.) Sites' specific location types within their immediate environment: The rock art sites never were in any close walking distance to contemporary settlements. Our local guides usually would drive with us in our cars as close as this was possible, if it was at all, and we then would walk up the respective wadi or slope for quite a while. On the average, an individual rock art site thus would be located at least ten km away from the next settlement, which was an isolated camp or village itself by wider regional standards. Usually the rock art in this sample is displayed either on a concave rock wall with some shadow during daytime, or on the smooth side of a single rock, again mostly protected to an extent from the sun during daytime. The rock wall as the first type of location would mostly occur in higher elevations, with some good view both upward and downward. The single rock as the second type of location would usually occur in low-lying locations, with good view and surveillance opportunities in most horizontal directions. Our local guides would agree with me that these locations served two purposes: one, providing a good material and visible surface for actually producing the rock art in question, and for featuring it afterwards to others. Second, providing a sheltered outpost for observing approaching movements of potential prey while being protected against the sun and – equally important – against the wind that might pre-alert sensitive wildlife.

This preliminary first overview provides the appropriate setting within which the following discussion of two examples will reveal few surprises. Instead, they rather offer cases that are illustrating the general points already made.

Fig. 2 represents the main visual art from the rock wall near Dhat al-Rada' at almost 2000 m above sea level. Parts of this rock art site already were previously published by Johann Heiss and me, but without any detailed interpretation of imagery at the time (Gingrich and Heiss 1986a; 177, Abb. 2). The present occasion permits to move beyond the tentative dating provided in 1986 by Walter W. Müller's accompanying textual analysis. The visual dimension of this site features a lower and an upper line of rock engravings. Both lines could be the result of a single artist's work, in which case the lower line would have been more exposed to rain run-off or to repeated touching by visitors. It seems also possible, however, that the lower line is somewhat older than the upper line, where colour contrasts and figures' silhouettes are more distinct. – The lower line displays two armed hunters on foot with a small dog between them in the right corner. The main parts of the lower line are composed of four animals with long horns. The length of their horns obviously is exaggerated, reaching across their spines almost to the back of their bodies. Despite the intended exaggeration in each of these four cases, the horns' curves and basic sizes indicate the theme of several ibex bucks. In front of the first ibex from the right, a medium-sized animal without horns could indicate a Saluki. – The upper line depicts a single hunting scene, again with an ibex at the centre. One person with both arms in the air is standing upright at some distance from the ibex while facing it. Emanating from the direction of that very person, a curved dotted line is coming down upon the head of the ibex. In my interpretation, this indicates stone sling shots from the person with upright arms who is facing the animal. Simultaneously, a dog and another person carrying a lance are approaching the ibex from the rear. That other person is depicted with one bent knee, so he may be seen as slowly approaching the animal in a hidden or crouched position while his hunting companion is distracting the animal from the front with raised arms and sling shots.

Figure 2. Rock Art from Dhat al-Rada', Sa'da province, northern Yemen

Fig. 3 is a section detail from that larger rock art example in southern Hijaz that is accompanied by Arabic graffiti. The section detail is selected here to discuss some of that additional imagery which now and then accompanies the main hunting themes that are shared by all cases in the sample. Fig. 3 features two lines of imagery, produced in the same style and technique and thus, in all likelihood, by the same artist. The upper constellation displays two persons: one of them is a rider with a lance; the other is ac-

companied by a dog while following on foot a small ibex that is running away. The two linear figures on the left side of these two persons cannot yet be interpreted. Still, this upper constellation relates to the overarching pattern of hunting scenes included in all rock art of the overall sample. Yet in this case donkeys or horses for riding are part of the imagery. – The lower line is an example for the less frequent visualization of interactions exclusively among humans: It displays two persons on the left, represented in the regionally standardized form of linear proportions. One of them (1) is standing without any weapon in hand. To the left of this first person, a second one (2) is riding with a lance directed against the other two (3 and 4). These latter two are again side by side each other, facing their opponents. Both of them are riding, one of them (3) with a lance pointed into the direction of (2). As the largest figure in the entire group, (4) is riding away from (1) and (2), but has turned backward and looks at them, while a spear slides through the body of (4). That spear obviously has been thrown by (1), which is why he no longer has any arms in his hand. The entire fighting scene therefore presents a moment when one group (1 and 2) is prevailing against the other (3 and 4). It is worth noting that the winning party (1 and 2) are visually characterized by normal graphic standards of linear proportions, while the losing party (3 and 4) is characterized by certain features that deviate from those standards: Given a particularly voluminous breast, (3) could be a woman, while (4) is holding some sort of shield and either is wearing a helmet, or has a long and rich haircut. Based on this interpretation, it seems plausible to argue that the winning group, represented by regular linear standards, may be identified as the artist's group of "us", while the losing group represents "them" with visibly differing features. As a possible alternative to this "armed conflict" interpretation, one may also think of a "ritual conflict" version, which would not necessarily oppose a local group of "us" against an enemy group of "them" but could possibly position regular locals (1 and 2) against locals from special groups (3 and 4), such as a shaman or a warrior woman. For this author, the first version of interpretation currently looks somewhat more convincing, but I do not entirely exclude the second version. Beyond this puzzle, however, the entire section detail in Fig. 3 indicates one important general point: Those hunters that are represented in West and South West Arabia's rock art between the 4th and the 9th century were obviously pursuing many other activities as well, in addition to hunting.

Figure 3. Rock Art from eastern Bilad Ghamid, southern Hijaz, Saudi-Arabia

4. COMPARATIVE EVIDENCE ON HUNTING

A number of factors therefore provide the necessary, critical safety distance toward any speculative contemplation in the present analytical procedure. This author explicitly supports those views arguing for an inverse relationship between serious academic professionalism and liberally intuitive interpretations of rock art content by outsiders. The factors relevant for that safety distance are (1) an evidence-based dating hypothesis situating the rock art spectrum under scrutiny here within a fairly young time window, i.e. after +/- 400 CE; (2) a priority for comparatively assessing the spatial and environmental contexts of the sample in question; (3) a narrow focus upon only those overarching sets of images in the entire sample (wild and domesticated animals as well as humans) that can be explicitly associated with biological and zoological evidence, thereby excluding any pareidolic "identifications". – Having established this, we may now move on to anthropology's comparative insights into this issue.

Comparative evidence on hunting indeed is substantially supporting and enhancing those few indicators in the local sample that point at a spectrum of other activities which hunting was associated with in West and South West Arabia. In fact, research on foraging societies has made it abundantly clear that hunting rarely ever occurred in isolation, i.e. as a local group's exclusive or primary subsistence activity. That was only the case for an extremely limited number of very few exceptional constellations under highly specific environmental conditions that do not at all apply to West and South West Arabia in the era under scrutiny. The main comparative evidence of relevance for this sample of West and South West Arabian hunting scenes therefore unambiguously and clearly points out that hunting in human societies of past and present always occurred in systematic combination with other activities. Specialized "hunters only" do not exist in any comparative setting of relevance. Instead, mixed economies are the rule (Gingrich and Schweitzer 2014). The hunting scenes in West and South West Arabia's rock art as represented in this sample therefore refer to contexts of hunting that were embedded in mixed local and regional economies, in which hunting was merely one among several main activities. This is the *first* and perhaps the most important insight to be gained from today's comparative socio-cultural anthropology.

Second, the main forms of such mixed economies with a hunting element in them can be represented even more precisely for pre-historic and historic contexts as belonging to either a "type I" or a "type II". Type I refers to local groups whose main subsistence activities are based on foraging without any treatment of domestication. By contrast, type II is indicative of local societies whose subsistence includes elements of simple cultivation and animal husbandry, but also some foraging (Barnard 2004). Type I usually tends to display non-centralized "band" forms of social organization, type II often may be characterized by non-centralized "tribal" features. The two types are represented in the visual overviews of Fig. 4 and 5.

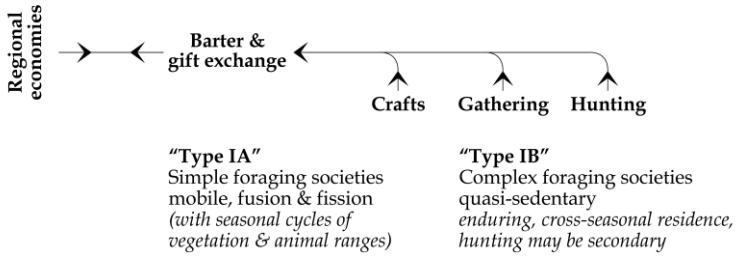

Figure 4. Type I, foraging societies and their main subsistence activities

Fig. 4 demonstrates that type I will occur primarily as simple foraging societies (sub-type IA) who observe annual fusion and fission patters, by which they follow seasonal cycles of vegetation and animal ranges. By consequence, they are mobile throughout most parts of the year but may settle down during specified, shorter periods in the year that permit or require temporary immobility (Wengrow and Graeber 2015). By contrast, sub-type IB relates to the rare cases of complex foraging societies with enduring, cross-seasonal residence. These groups are quasi-sedentary, which is made possible by an especially favourable or limiting environment such as rich fishing grounds, ample occurrence of wild fruit throughout the year, few alternatives for moving elsewhere, and the like. The mixed economies of both sub-types (IA and IB) of small foraging groups combine at least four elements with each other, namely gathering plants and other goods (e.g., salt), hunting small and large animals, carrying out non-specialized crafts' expertise (e.g., basket-weaving, producing arms), and last but not least, exchanging

gifts and goods for everyday life ("barter and gift exchange") with other groups. Among foragers of the IA type, animal husbandry would only occur as a more recent adaptation from the outside, if sufficient grazing grounds were locally available to them. – Through barter and gift exchange, any individual type I or type II group is always engaging with other groups in the region, if that engagement is not violent but peaceful. Just like hunting never occurs in any isolation from other activities within one and the same group, it also has to be emphasized that the relevant groups in which hunting is practiced never live in any form of permanent isolation from other groups. Either by armed conflict or through barter and gift exchange they mutually interact in substantial and unavoidable ways to the extent that they constitute larger regional economies.

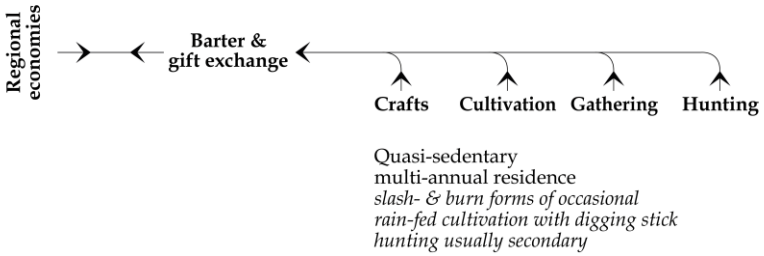

Figure 5. Type II, societies with simple cultivation and some hunting

Type II groups are semi-sedentary, which often is combined with slash-and-burn ways of preparing the soil. The forms of simple agriculture pursued by these groups with digging stick or hoe are occasional (depending on sufficient rainfall in any given year) and rotating or "shifting": Once they have exploited a given area over a few years to the point of soil's exhaustion, they move to another location. Between their years of occasional farming, they may actually switch to an economy of the IA type, and back. The mixed economies of type II societies thus merely add occasional, simple rain-fed cultivation (and some animal husbandry) as a fifth element to the overall portfolio that we encountered among type I economies. Animal husbandry may occur more frequently among type II groups, since their cultivation practices also may provide additional fodder. – It should not be denied that from an archaeological perspective types I and II may indeed represent possible intermediate stages of evolutionary development, although even archaeologists would not insist on any necessity within this possibility (Gingrich 2010). What is more important for our purposes of addressing specific historical constellations between the 4th and the 9th century CE, however, are the synchronic potentials rather than diachronic theories: In short, the forms represented here as IA, IB, and II could easily occur simultaneously – i.e., during the same historical phase, as different elements within one and the same heterogeneous regional economy (Gingrich and Schweitzer 2014). This sample's visual evidence for domestication (dogs, donkeys), however, is putting a somewhat stronger emphasis upon correlations with type II than with sub-type IA, while correlations with sub-type IB may be assumed as minimal for the time being for lack of any substantial environmental indicators.

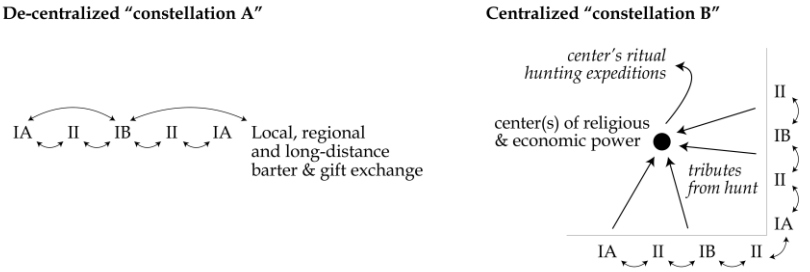

Figure 6. Regional economies with hunting in constellations A and B

Fig. 6 outlines two varieties of how such regional economies with more or less substantial elements of hunting in them may be conceptualized. Constellation A displays a loose cluster of local groups including several forms of IA and II together with a few IB forms. The cluster has various internal connections, based on – yet not necessarily limited to – barter and gift exchange, while several links also connect that cluster to the world outside. At times, some among these groups may be stronger than

others by criteria of demography, economy, health, and/or violence, but none of them attains any permanent dominance over the rest. This is why this first form is referred to as the "decentralized" constellation A. – By contrast, the second form is represented as the centralized constellation B. This particular constellation is associated with the existence of some kind of enduring centre of political power, of ritual hegemony, and/or economic revenues and tribute. In all relevant cases of pre-historic and early historic West and South West Arabia, the emergence of such centres presupposes complex agricultural conditions that would come along with irrigation, ard usage (Gingrich and Heiss 1986b), and various forms of livestock. Such a centre would include some areas of close vicinity and related outposts. In relation to such a centre and its vicinity, the interrelated forms of IA, IB, and II represent wider peripheries within semi-autonomous or largely autonomous settings. They would sometimes benefit from their occasional relations to the centre. At the same time, they might be obliged at least occasionally to offer tribute to the centre. From the peripheries' perspective, tribute and gift exchange therefore may not even be perceived as opposites, but merely as two values along a sliding scale, or as two versions of the same basic type of external transaction (Godelier 1984). – Hunting can be seen as playing a certain role at both ends of this relationship between centre and peripheries. Trophies and other results of successful hunting may be offered as tribute *to* the centre, but central representatives may as well embark themselves upon hunting expeditions *by* the centre.

The second set of comparative evidence discussed here thus permits to tentatively link the hunting scene cases from the Vienna archive to three forms of groups' mixed economies (IA, IB, II) that are part of wider regional economies within de-centralized or centralized constellations (A and B). One may hypothetically go as far as associating those two examples that are documented together with graffiti scripture in our sample to be more closely linked with constellation B. After all, they indicate some direct influence from central locations where writing skills were known to a minority of residents (Goody 1988). In addition, the riding animals in one of these two cases also emphasize regular interactions with agriculturalists and/or pastoralists in the wider region. Some among the other examples in this sample may be closer to constellation A, or alternatively, they also could represent quasi-autonomous instances at the margins of B. At any rate – the more instable those centres were, the more regularly the peripheries would shift from constellations B into constellations A, while increases in central stability came along with shifts in the opposite direction, i.e. from A to B.

Thirdly and finally, now that we have limited the possible contexts of those hunting scenes in the Vienna rock art sample to a few clearly delineated socio-cultural alternatives in regional history, we may return once more to the representational contents of those scenes. The second set of comparative evidence has already emphasized that in real life contexts of those historical eras under scrutiny, hunting merely represented one among several important fields of socio-economic activities. In fact, most hard evidence that is available suggests that the practical relevance of big game hunting for regular food provision usually was rare and on the average, minimal among types I and II (with the exception of certain circumpolar contexts). The staple diet of most type I and II groups thus was primarily derived from plants and in addition, from small animals and insects (Barnard 2004). None of the related foraging activities for collecting plants and small animals, however, is addressed in any of the sample's rock art visualizations. Prey from big wildlife hunting also had additional pragmatic relevance beyond meat for food (such as skin and fur for shelter and dress, bones for tools, and so forth), but there were alternatives to most of these materials (wood, weaving of leaves). This indicates an obvious contrast between the fairly occasional and mostly modest *pragmatic* relevance of big wildlife (i.e. for regular food acquisition and other practical needs), and its towering *visual* significance in the rock art imagery under scrutiny. It follows by consequence from this contrast that the imagery's hunting scenes represent not merely pragmatic relevance but, more importantly, also some crucial symbolic significance. This also is apparent in some of the visual features already discussed, such as the pervasive presence of hunting scenes among all rock art examples in our sample, the plain numbers of ibex representations, or the systematically exaggerated length of ibex horns among them. The available evidence for hunters and gatherers therefore confirms and enhances elements that are already indicated by the visual representations in this sample. In short, the pragmatic relevance of big game hunting stands in an inverse relationship to its symbolic significance.

If high symbolic significance overshadowed the modest pragmatic relevance of big game hunting in our sample, then what remains to be answered is the question about the social positions associated with that high symbolic relevance. The models discussed so far, as well as the comparative anthropological insights that have informed them, indicate that the answer is twofold. Among the *internal relations* of type I and type II groups, big game hunting success came

along with the occasional but spectacular privilege to distribute meat or other animal products and to share their usage and consumption among group members (Peterson 1993). In turn, this could contribute to the more permanent promotion in meritocratic status positions such as those of prestigious great hunters, for instance. Among the *external relations* of type I and type II groups, an entire animal prey, a beautiful fur, or an impressive trophy such as ibex horns could enter inter-group circulation either as a precious item of barter, or as a prestigious gift. More often these would be group transactions rather than personal offers. In addition, as was already shown for the local group's perspective, any distinctions between gift exchange and tribute often could appear to be differences of degree rather than of kind. The products and trophies of successfully hunted ibex, wild goat, and antelope therefore could become the clearly conspicuous and highly symbolic elements of local groups' tributes to the centre.

If that regional centre was the occasional recipient of hunting results from the peripheries, then sporadic seasonal hunting expeditions that were carried out by the centre's representatives themselves also cannot be excluded (Fig. 6). Such central elite's expeditions are suggested, of course, for many instances of medieval and earlier history in the Middle East and the Mediterranean regions. In West and South West Arabia, those elite hunting expeditions would have to cross even larger distances than by local groups, and they would have to include local guides. Enhancement of prestige and self-aggrandizement would be the more obvious symbolic rationale, together with adventurous entertainment. Whether any religious symbolism came along with that in South Arabia's pre-Islamic times remains to be discussed (Maraqten 2015), although it is difficult to ignore the general relevance of the "Paradise" trope (παραδεισος, سودرف) as a royal hunting ground for the Ancient Middle East. Yet even in Islamic times, the symbols of successfully hunting big wildlife in the mountains remained openly appreciated and publicly acknowledged among the central elites. As late as in the early 1980s, Johann Heiss and I saw the horns of mountain goat and ibex emanating at the four corners of upper house walls among many old elite families' residential mud buildings inside the city walls of Sa'da in northern Yemen.

5. CONCLUSION

By contrast to earlier anthropological endeavours in the study of rock art, the present approach of analysing a sample of West and South West Arabian rock art from southern Hijaz, north eastern Asir and northern Yemen has been committed to making use of reliable, comparative and cross-cultural evidence for present purposes. Since two among the dozen examples in this sample are documented together with contemporary scriptural evidence, a first provisional dating window for the entire sample was suggested, i.e. for +/- 400-900 CE. The main general location of the sample's cases was identified as being situated in West and South West Arabia's transition zones to Inner Arabia and the Najd. Since big game hunting clearly is the one overarching theme in all of the sample's imagery, the specific environmental contexts of barren, mostly uninhabited areas were suggested to be related to individual sites' position regarding local hunting opportunities. Rock walls in higher positions and individual rock blocks in lower positions were distinguished, with a view to big animals' horizontal or vertical seasonal movements. The imagery's visual contents was analysed in relation to comparative evidence on foraging societies, which allowed for some further clarifications. The possible contexts of these hunting scenes could be reduced to a few, clearly outlined socio-cultural alternatives in regional history. Characterized as types I (with sub-types IA and IB) and II, it was shown that in their pragmatic dimensions, the rock art imagery was indicative of regionally mixed economies that included groups of foragers and simple cultivators of a semi-autonomous or autonomous kind, interacting among each other either in violent ways or if peacefully, through barter and gift exchange. These mixed regional economies could shift between less or more centralized constellations. A contrast between pragmatic relevance and symbolic significance was demonstrated, and the symbolic position of big game hunting was located in local groups' internal and external social relations. The internal distribution and sharing of some of the hunting results would promote meritocratic prestige and the elevation of great hunter status positions inside a group. Simultaneously, special results of big wildlife hunting were also inherent to barter, gift exchange, and tribute as part of a group's external relations. This is how special trophies such as ibex horns also came to be received as tribute or gift by central elites, who occasionally also carried out their own hunting expeditions into those areas that were less inhabited by humans. In this manner, the present analysis complements other insights on rock art in the Arab peninsula (e.g., Bednarik and Khan, 2005 and 2009). Relying on socio-cultural anthropology's accumulated expertise in the comparative study of hunting and gathering societies therefore enables research to describe and explain a number of important features of the peripheral regions in West and South West Arabia's pre-Islamic and Islamic history, by means of rock art as an object and a device of analysis.

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