

Zeitschrift:	Entretiens sur l'Antiquité classique
Herausgeber:	Fondation Hardt pour l'étude de l'Antiquité classique
Band:	63 (2017)
Artikel:	Mountain margins : power, resources and environmental inequality in antiquity
Autor:	Purcell, Nicholas
DOI:	https://doi.org/10.5169/seals-696939

Nutzungsbedingungen

Die ETH-Bibliothek ist die Anbieterin der digitalisierten Zeitschriften auf E-Periodica. Sie besitzt keine Urheberrechte an den Zeitschriften und ist nicht verantwortlich für deren Inhalte. Die Rechte liegen in der Regel bei den Herausgebern beziehungsweise den externen Rechteinhabern. Das Veröffentlichen von Bildern in Print- und Online-Publikationen sowie auf Social Media-Kanälen oder Webseiten ist nur mit vorheriger Genehmigung der Rechteinhaber erlaubt. [Mehr erfahren](#)

Conditions d'utilisation

L'ETH Library est le fournisseur des revues numérisées. Elle ne détient aucun droit d'auteur sur les revues et n'est pas responsable de leur contenu. En règle générale, les droits sont détenus par les éditeurs ou les détenteurs de droits externes. La reproduction d'images dans des publications imprimées ou en ligne ainsi que sur des canaux de médias sociaux ou des sites web n'est autorisée qu'avec l'accord préalable des détenteurs des droits. [En savoir plus](#)

Terms of use

The ETH Library is the provider of the digitised journals. It does not own any copyrights to the journals and is not responsible for their content. The rights usually lie with the publishers or the external rights holders. Publishing images in print and online publications, as well as on social media channels or websites, is only permitted with the prior consent of the rights holders. [Find out more](#)

Download PDF: 12.01.2026

ETH-Bibliothek Zürich, E-Periodica, <https://www.e-periodica.ch>

II

NICHOLAS PURCELL

MOUNTAIN MARGINS

POWER, RESOURCES AND ENVIRONMENTAL INEQUALITY IN
ANTIQUITY¹

1. Introductory

A key matter for this volume's agenda is the relationship between two sets of ideas: on the one hand, the varieties of broadly political authority (civic, imperial, local, public or private), and on the other, production, exchange, and ecology, acting through landscapes and territories, human and physical.² It is in that *relationship* that we can seek and identify the various effects of determining power, through analysing differential access to opportunities, resources, and protection against risk. The argument of this contribution concerns a major type of ecology, that of higher mountains and uplands, which has a distinctive place in the spectrum of productive possibilities. But in order to understand it, it is never sufficient to look at the highland alone. The interactions between that zone and what lay around are what counts. Recognising that leads to questions about what kinds of territoriality or

¹ It is a great pleasure to record my warmest gratitude to Sitta von Reden for her invitation, and for the intellectual vision behind the stimulating discussions which she organised and led; and to M. Ducrey and the Fondation Hardt for all their organisation and hospitality at Vandœuvres.

² I have not limited my vision of 'political control' to those parts of the spectrum of determining power to which we are most willing to give the label state. For this approach, HORDEN / PURCELL (2000) 86-87; 247-278.

human landscape can be associated with mountain-ecologies in Antiquity. How were those spatial phenomena articulated by production and exchange and their political consequences?

The control and exploitation of the resources and opportunities associated with different facets of mountain ecologies offer both opportunities for advancing the analysis of complex ancient discourses and enlightening comparison with other periods. Who actually does the controlling? Who does the exploiting? Where are they based, in relation to the ecologies in question? What are the consequences, for whom, and where, of their so doing? That is where those questions bear on the theme of this volume — how inequality was related to the nature of economic systems.

The investigation depends on posing questions which are basically territorial — questions about catchment-areas, carrying-capacity, interdependence, and integration. Political territoriality has been studied to a considerable extent. Especially with reference to Greek *poleis*, we have some sense of what boundaries mean, how the territory lying within them is articulated, what limits *autarkeia*, how access to different resources was allotted within the *chôra*, and so on.³ Scholars have now turned, encouragingly, to asking how cellular city-states divided larger landscapes between them, and what role larger political organisations played in the integration of resources across wider spaces.⁴ But there remains a great deal of work to do: distaste for an antiquated environmental determinism has slowed alternative forms of progress in this field. Although the economic consistency of political territories has also been firmly on the agenda, therefore, and production obviously has its place in such analysis, the question of what the appropriate scale for the study, and how wide are the relevant spatial boundaries, usually goes by default.

³ On Cretan treaties and territories, in this sense, as an example, VIVIERS (1999).

⁴ MACKIL (2013), exploring the ecological relations (for the most part mountainous) at the heart of the co-operations of members of Greek *koina* is, however, an important step in that direction. See also ANDREAU / ØRSTED (1990).

We still do not see much work on the correspondence (or lack of it) between conceptualisations of the political landscape and perceptions of whole landscapes of production (which might include patterns of labour mobilisation, of capital expenditure, textures of title to land, whether as proprietor or tenant, geographies of credit and monetisation, and zones of similar fiscal control or of levels of market engagement). This essay concerns the extent to which the formation of such coherent zones of comparable economic activity — and of their interaction with each other — related to the drawing of political and administrative subdivisions. Mountains serve as the ecological test-case, as well as a suitable comparandum for the other ecologies, arid or semi-arid zones, forests, or irrigated landscapes, discussed elsewhere in this volume. The central argument is a simple one: it is tempting to consider these environments with strongly distinctive characteristics in isolation, but their economic, social and political fortunes make no sense unless they are properly situated in very much wider worlds.

This discussion begins from the Alps. For the third-century historian Herodian (2, 11, 8), the Alps were unique in *hê kath'hêmas gê*. That is worth a moment's reflection: among younger fold-mountains in the regions which were home to Greeks and Romans, the Alps do not seem so singular today. But the arresting perception of uniqueness entitles us to give special attention to the ways in which the Alps were repeatedly englobed by and re-incorporated into the changing spatialities of the Roman world over many centuries. They become a lens through which we can see other mountain-zones. At the same time, there is no unified or homogeneous set of Mediterranean mountain histories.⁵ Even closely comparable highlands differed radically precisely because they formed parts of very different larger wholes.

⁵ This is to argue directly against works such as MCNEILL (1992), followed by TABAK (2008).

A last theme, among the resources and opportunities offered by mountains, and the ways in which they related to and articulated larger landscapes, is the way they could be imagined and richly nuanced as boundary-markers on a very large scale. Mountain zones formed limits to a great many of the systems of ecological zones which can usefully be regarded as Mediterranean, and indeed — in many places — acted as margins or boundaries in respect of the Mediterranean as a macroregion. Mountains were conceived of as boundaries, or as zones of differentiation and transition, even while they were, in demographic or economic terms, effectively part of the regions which they were alleged to keep apart.

Edges, boundaries, and liminal transition-zones, of course, are always constructed and performed, rather than being straightforward environmental givens, and it is particularly instructive to examine how that is true even in those cases where the frontier can appear at its most intransigently physical, as with mountains. None of the sets of edges of which I am speaking — neither mountains as edges, or the edges of mountainous zones — is unambiguous, or an obvious and indisputable geophysical given. That is not how mountains act as edges. In general their ‘edginess’, so to speak, is, rather, always constructed, woven out of the interaction between human practices and environmental realities, perceived across the seasons experienced by actual human beings, enacted in historical regimes of mobility.

This paper therefore seeks to emphasize particularly two points with implications beyond the ecology of mountains. The first is the problem of what one might call ‘practical regionalism’. It concerns the nature of the units into which the social and economic landscape is divided, and the implications of dividing it up into units of any kind. This is a question with important ramifications for both ancient thinking and modern scholarship. The second point concerns the ‘colonisation of mountain environments’. In using this term, rather than suggesting any freedom of self-determination, a kind of narrative happenstance in which all sorts of people have simply and casually done all sorts

of things in different upland corners, my aim is to focus on the upland and the higher mountain as terrains of external intervention, recipients of initiatives from the surrounding plain. Within this general category, interventions on the scale which makes it reasonable to speak of them as deriving from 'the state' have a special part to play, with all appropriate caution about the applicability of the term 'state' to the ancient world.

The mountain will appear, above all, as a landscape of mobility. Mountains have frequently derived their character from the very visible fact of the movement of people (on many different rhythms) in and out and across. The mobility associated with mountains is very conspicuous and has often been the subject of study, and mountainous zones in Antiquity add to our understanding of the trans-historical significance of mobility and its consequences.

2. Territoriality: human and physical landscapes

2.1. *On defining mountain environments*

Mountains are surprisingly hard to define. Vertical zonation and the characteristics of slopes are the crucial variables, and they intrinsically tend to produce mosaics of microregions with various characteristics rather than substantial zones of uniformity.⁶ The effect of altitude on seasonal minimum average temperatures is naturally vital too, a criterion which is not dependent on relief, though it may be importantly inflected by it. Such items in the repertoire of the physical geographer certainly affected human societies and their histories. Their impact, though, was always shaped by the ways in which these differences from the character of lower-level or lower-relief microregions were interpreted and fed into choices about productive enterprise (and other behaviours which interact markedly with the environment). It might

⁶ Cf. WALSH (2014) ch. 8.

be better, then, to resist the urge to classify. Mountains, like towns or islands, are a category which needs to be enacted or performed, by the peoples of mountain regions themselves, or by those from outside, or by observers — geographers or archaeologists or historians — as we employ the terminology. Michael Herzfeld, criticising the unreflective categorisation of phenomena, social or historical, as ‘Mediterranean’, calls for attention to “situated disciplinary discourses”.⁷ He argues for the need to “embed the regional in wider forms of comparison”. His challenge is to get away from “tiresome ontological debate... and to focus instead on issues of power and hierarchy”. All this, I believe, applies to most of the generalisations with which we shall be working in these *Entretiens* — and certainly to the environmental classifications. In whose interests was it to speak of mountains in the standard terms echoed throughout ancient literature? What do the authors whose work appears on my bibliography get out of being mountain-historians?

Regional geography can be focalised by internal or by external construction. Being in — or of — a region is quite different from considering whether to enter it or leave it or not, or reflecting on ways of interacting with it without such movement. For this second focalisation can, in turn, be subdivided into imagined destinations, and places defined by the fact that we do *not* go there. Environment has an orientation. It means nothing except relationally. It is always somebody’s environment, and the questions which underlie ‘environmental history’, which make it historical, are “to whom does it belong?”, and “what is my relationship with them?”.

The essence of environmental history can therefore be captured through the different means by which people, singly or in groups, reach out from their immediate surroundings, making theirs, in different ways, larger or smaller parts of their environment. The senses in which those modalities deserve to be called territorial are various, and many of the behaviours which orient

⁷ HERZFELD (2005), 47; 49-50. Cf. HORDEN (2005).

environment are only tangentially ‘territorial’. But this is where territoriality belongs in the academic discussion — in the strategies of self-interested representation of geographical reality. Territorial claims have no essential basis. But mountains, like islands, can be made to support the idea that they do. The elder Pliny’s colourful evocation of the Caucasus (*Hist. Nat.* 6, 12), that enormous “architecture of Nature”, with its claims that a world of teeming barbarian mobility is excluded by gates in one place alone, where a fortification on a crag above a chasm in which flows an evil-smelling stream, and the non-Roman world is held off with iron beams, is a good example. The passage is obviously and interestingly tendentious: the discursive location of mountainousness is often more hidden, and essentialising claims harder to see through or see past.

Behaviours such as mountain theory and territorial description are among the building-blocks of environmental history, then, and it makes more sense to divide the discipline according to them than with reference to the physical properties of the landscape. Intensification of production, primary resource extraction, and control of movement are among the interesting headings (to cite only the three with which the present brief study is most concerned), and they might be examined in wetlands, forests, arid steppes, or — as here — high mountain zones. In all these cases, the comparison entailed by assigning logical priority to the categories of human behaviour rather than the natural conditions is intellectually productive.

Complexes of high mountains often exhibit a differentiated, specialised, set of productive choices. Such representations are to be found in Antiquity too. Ancient texts, and their modern interpreters, regard the classic triple system of husbandry, cereals and arboriculture as normal, and it has in turn become normative for the study of Mediterranean history, the default for the reconstruction of all ordinary landscapes. It is against this familiar pattern that mountain environments are typically counterpointed. It is preferable to see the ‘classic Mediterranean pattern’ itself as a remarkable specialisation, a singular product (though

spectacular in its durability and spatial extent) of economic, social and political expectations and practices. Alternatives to it, such as upland, forest, or steppe economies, are parallel systems, not departures from or antitypes to, a basic norm. In this spirit, recent detailed palaeoenvironmental work has displayed the periodicity of the 'Mediterranean system', its boundaries in time, notably in Anatolia around the transition from Byzantium to Arab and then Turkish settlement.⁸ One distinctive sociopolitical pattern of landscape organisation gives way to another: neither, it transpires, was determined by the environment. Zones where the classical Mediterranean complex was the dominant organising principle had spatial boundaries too, and although those often coincided with margins created by changes in altitude or exposure, and intensified by changing climatic patterns, they were also articulated by institutions such as city-territories, labour relations, market-behaviours, or land-tenure.

Now a further crucial step is to recognise that none of the possible varieties of productive environment was freestanding. Each developed in interdependent dialogue with others. The conclusion for specialised mountain production-systems is that they too form part-systems, and the calculation of their economic potential and social self-sufficiency has to allow for their integration with the worlds around them. And that is where the case of mountains is so relevant to the enquiry into equality of opportunity, entitlement, and provision in historical contexts.

2.2. *The problem of mountain demography*

Ammianus Marcellinus (27, 4, 14), describing the peoples of the southern Balkans, makes a remarkable claim about the inhabitants of the Haemus and Rhodope. Attributing his authority to *rumores*, that is to generally held views (rather than to the authority of an earlier author), he describes these peoples

⁸ IZDEBSKI (2013).

as having a marked advantage by comparison with 'us' in regard to *salubritas* and longevity.⁹ If he thought that mountains in general were characterized by a relative demographic felicity, how did he think that he or the inhabitants knew? Directly or indirectly, perceptions of the availability of military manpower are extremely likely to be the basis for his opinion. Here, as (one might guess) in many other impressionistic contexts, it seems very likely that normal out-mobility (about which more hereafter) can all too easily be mistaken for abundance of population.

Mountain-zones, and here we are clearly dealing with a phenomenon far wider than Italy, lend themselves to stereotypes of poverty, backwardness, simplicity and deprivation which are widely disseminated in lowlands and in cities, and which it has proved all too easy for historians to adopt unreflectively.¹⁰

"The wintry and mountainous parts of the habitable earth would seem to afford by nature but a miserable means of existence; nevertheless, by good administrators, places scarcely inhabited by any but robbers, may be tamed. Thus the Greeks, though dwelling amidst rocks and mountains, live in comfort, owing to their economy in government and the arts, and all the other appliances of life. Thus too the Romans, after subduing numerous nations who were leading a savage life, either induced by the rockiness of their countries, or want of ports, or severity of the cold, or for other reasons scarcely habitable, have brought into communication with each other those who were previously isolated, and taught the wilder ones how to live in the manner of the *polis*" (Strabo 2, 5, 26 [trans. Hamilton/Falconer, adapted]).

The negative images of mountains in such ancient texts need no rehearsing here (we shall return to the more important aspect, that the demerits of the highlands are remediable). ancient texts need no rehearsing here. Ammianus' representation of mountains

⁹ *Constat autem, ut uulgavere rumores adsidui, omnes paene agrestes, qui per regiones praedictas montium circumcolunt altitudines, salubritate uirium et praerogativa quadam uitiae longius propagandae nos anteire.*

¹⁰ FORNASIN / ZANNINI (2002) on the 'leggende nere' of a particular sort of Italian social and economic history which perversely relishes particular narratives of immiseration.

may be more positive, but no more to be trusted, for all that it is positive rather than hostile. This view has, for all that, been very influential.

Malthus, in his great work *Essay on the Principle of Population*, was much impressed, in rather the same manner as Ammianus, by the vital statistics which reached him from village records in the high Alps of Switzerland.¹¹ His interest crystallized Alpine demography as a special concern for the historical demographer, and sought a systematic and evidence-based foundation for impressionistic views. Christening-rates, the fall in which had seriously worried the Swiss authorities, death rates, and nuptiality, took their place in the discussion. Fernand Braudel, 150 years later, excited by the same general perception, developed the theme of Mediterranean mountains as “factories for producing people”, and painted a vivid picture of mountain out-migration as a major *structure* in Mediterranean history, one that could easily be illustrated by historical anecdote from every period.¹² He enthusiastically, but perhaps unconsciously, adopted Plato’s view that mountains represented the “earliest civilisation of the Mediterranean” as Braudel put it.¹³

The demographic history of mountains which Malthus helped into existence has continued to be pioneered in the Alps, but has been extended to other parts of mountain Italy too, wherever the parish records or other documentation is of sufficiently high quality.¹⁴ The work of the anthropologist Pier Paolo Viazzo, a generation ago, or more recently of the more historically oriented Jon Mathieu, has traced the historical demography of the mountains of north Italy in much more detail, and supports the early observations of Malthus, and even, perhaps, the *rumores* on

¹¹ MALTHUS (1798), II 5.

¹² BRAUDEL (1972) 25-53 “Mountains come first”. Cf. COHN (1996).

¹³ BRAUDEL (1972) 51-53. STRABO 13, 1, 25, speaks of PLATO’s account (*Leg. 677-679*) of humanity’s gradual transfer to places lower down, *metabaseis eis ta katô merê*.

¹⁴ The volume of FORNASIN / ZANNINI (2002) is a good example.

which Ammianus based his observation.¹⁵ Two features appear to be of particular importance. One is the role of nuptiality in controlling births to compensate for longevity: this was the answer to Malthus' conundrum, and patterns of nuptiality have now received detailed attention in relation to many data-sets. The other is that despite widespread and undoubted environmental disadvantages in the conditions of production, mountains have shown a capacity for slow but steady demographic increase: “la capacità ... di garantire una certa, continua espansione demografica, aumentando progressivamente la superficie antropizzata, ma anche calibrando e mutando sapientemente il rapporto tra l’agricoltura, la zootecnica, la selvicoltura”.¹⁶ The higher the healthier: but intensification is vital too.

From Malthus to Braudel, then, the standard account of the demographic relations of mountainous areas with the regions around maintains that out-migration from mountains is the product of demographic pressure on a restricted resource-base, which results also in the commercialisation of the products of pastoralism. Against this, Laurence Fontaine, an expert (among other things) on the travelling pedlars of the Algerian Kabyle, has proposed that migration is not the remedy for, but rather the explanation of, mountain overpopulation. Mobile mountain-people, on her view, bring home so much wealth that families are tempted to grow, but the conditions necessary to maintain the new levels of population are hard to maintain in local environmental conditions. At least in the Alps, society on the early modern period was thus based on “une culture villageoise de l’absence, du départ toujours possible et du retour jamais assuré”.¹⁷

This seems an intrinsically difficult thesis to maintain in its strong form. But it raises an important problem of method, and introduces a different approach to my central cluster of problems.

¹⁵ VIAZZO (1989); MATHIEU (2000).

¹⁶ FORNASIN / ZANNINI (2002) 17.

¹⁷ FONTAINE (2003).

The methodological question is “who are the inhabitants of a region?”. And what are the parameters of stability? What relationship do those who are there at a given moment have to the place where we find them at that moment? The sense in which they belong there is one of the things which the historian should be investigating, not an axiomatic given which we take for granted at the beginning of any enquiry. Some regard themselves as strongly entitled by patriline or property-history — we may choose to accept their account and speak of them as the inhabitants, but, in an enquiry into equality, we should be alert to the fact that in doing so we are ignoring the groups who are not so entitled — mobile labour, including slaves; women, in many cases; the rootless and the wanderer. At its worst, this lack of reflection can make us speak of ‘the people of the Pyrenees’ as if they were a transhistorical object with vicissitudes over decades and centuries. This is a surviving form of essentialism, and we need to notice ourselves perpetuating it.

It is increasingly accepted that ancient demographic regimes were locally and chronologically very variable.¹⁸ Such variation is precisely what Malthus observed in Switzerland, where he was undoubtedly correct in seeing the extreme marginalities of subsistence at high altitude as an important factor. Mountain-zones, then, play an important part in configuring the map at any moment of differentials between demographic conditions, and in the process show in vivid example how environment enters in to demographic history, not as a direct determinant of aggregate populations, but as a variable through which, by means of responses to the ever-changing risk-regimes of complex marginality, physical givens help inflect the range of possible social strategies adopted by those who have only limited control over the resource-base for survival and community-formation.

Fontaine, then, turning the orthodoxy on its head, makes us ask who are the mountain people — those who leave and

¹⁸ This is a prominent theme in the collection HOLLERAN / PUDSEY (2011).

return, or those who stay, and how, in those conditions, can we regard them as being a historical subject? The historical subject is the pattern, precisely as she suggests, les “cultures villageoises de l’absence, du départ et du retour”. But it becomes crucial to know (to go back to Herzfeld’s demands) about hierarchy and power in these village-cultures. Who takes what decisions for what reasons? Who decides on the trajectories of the outwardly mobile, and the uses of what they bring back to the community? It is time to turn to the question of power.

3. Political expressions of landscapes of production and exchange

I have spoken so far in a conventional enough way of the rural vocations of mountain areas. The demographic excursus shows that (whichever models of the horizontal mobility we favour) we cannot leave exchange and reciprocity and links with other regions out of our modelling of mountain-histories. Every aspect of mountain life constituted a possible object of control from outside. Making it the target of such control did much to bring mountain regions into focus as zones with their own character, to define them and present them to outside scrutiny. Spatial phenomena were articulated by production and exchange and their political consequences. Mountain opportunities define the attitudes to mountains of those outsiders who exploit them.¹⁹

Here is where we also begin to engage with the theme of resources and access to them. Environmental diversity does not only matter because it facilitates subsistence, it provides opportunities for intensification.²⁰ In the case of the challenges of high-altitude regions, it may also call for the intensification of

¹⁹ The process offers points of contact with Robyn VEAL’s theme of ‘Levers of Control’ in this volume pp. 317-367.

²⁰ HORDEN / PURCELL (2000) 178-190, make related points about wetlands and forest.

production as a means of addressing risk.²¹ That intensification will include the development of economic activities which depend on relations with the world beyond the mountain. Strabo's description (4, 6, 6-7) of the Alps and the fate of the Salassi at the hands of Augustus' generals illustrates the point well:

“Lying above Como ... are ... numerous small nations, poor and addicted to robbery, who in former times possessed Italy. At the present time some of them have been destroyed, and the others at length civilized, so that the passes over the mountains through their territories, which were formerly few and difficult, now run in every direction, secure from any danger of these people, and as accessible as art can make them. For Augustus Caesar not only destroyed the robbers, but improved the character of the roads as far as practicable, although he could not everywhere overcome nature [a vivid account of the precipitous paths and the danger of avalanche follows] ... The country of the Salassi contains gold mines, of which formerly, in the days of their power, they were masters, as well as of the passes. The river Dora Baltea afforded them great facility in obtaining the metal by [supplying them with water] for washing the gold, and they have emptied the main bed by the numerous trenches cut for drawing the water to different places. This operation, though advantageous in gold hunting, was injurious to the agriculturalists below, as it deprived them of the irrigation of a river, which, by the height of its position, was capable of watering their plains. This gave rise to frequent wars between the two nations; when the Romans gained the dominion, the Salassi lost both their gold works and their country, but as they still possessed the mountains, they continued to sell water to the public contractors of the gold mines; with whom there were continual disputes on account of the avarice of the contractors, and thus the Roman generals sent into the country were ever able to find a pretext for commencing war. And, until very recently, the Salassi at one time waging war against the Romans, and at another making peace, took occasion to inflict numerous damages upon those who crossed over their mountains, by their system of plundering; and even exacted from

²¹ This is the thoughtworld of BOSERUP (1965) rather than MALTHUS; BINTLIFF (1996). See the interesting recent discussion of OUZOULIAS (2014) (in whose title *Nos natura non sustinet* is a quotation from TERT. *De anim.*30). To a Mediterranean observer the marginality of northern European production was intrinsically similar to that of the Mediterranean mountain.

Decimus Brutus, on his flight from Mutina, a drachma per man. Messala, likewise, having taken up his winter quarters in their vicinity, was obliged to pay them, both for his fire-wood, and for the elm-wood for making javelins for the exercise of his troops. In one instance they plundered money belonging to Caesar, and rolled down huge masses of rock upon the soldiers under pretence of making roads, or building bridges over the rivers ... Terentius Varro, the general who defeated them, sold them all by public auction: namely 36,000 bodies, and in addition 8000 men capable of bearing arms. Three thousand Romans sent out by Augustus founded the city of Augusta, on the spot where Varro had encamped, and now the whole surrounding country, even to the summits of the mountains, is at peace.”

Here is a mountain polity engaged in securing and enhancing economic control of every resource it can think of, not omitting the abundant water of the Alps. Intensification, however, is double-edged. While it may be a survival strategy of self-determining producers, it is very often the opportunistic and enforced strategy of powerful outsiders.

3.1. *Mountains as spaces of geological abundance*

Roman authors display a very striking sensibility to this aspect of the nature of mountain-zones. The best known text, and characteristically the most flamboyantly rhetorical, is Pliny's reflection (*Hist. Nat.* 36, 1) on the wholesale subversion, destruction and removal of the mountains, in this case in the pursuit of precious marbles for building. Elsewhere he describes mining for metals in very similar terms (*Hist. Nat.* 33, 21). Strabo's reflection on the gold of the Salassi in the Val d'Aosta operates with very similar assumptions, though less colourfully expressed. What we know of Roman mineral exploitation, from the Magdalensberg, for instance, shows that these texts allude to real conceptions of the nature and advantages of mountainous areas.²²

²² STRAUBE (1996) *Ferrum Noricum*; VETTERS / PICCOTTINI (1973).

My next example is less familiar. It is an altar from the marble-rich valleys of the remote western Pyrenees, now in Toulouse (*CIL XIII* 38). Its dedicators, Julius Julianus and Publicius Crescentinus, exhibit interesting sensibilities. With a very Plinian sense of the record of discovery and claiming your place in the annals of artisan or economic achievement, they boast that no-one has done before what they commemorate on the stone — the successful quarrying of monolithic columns of the marble of St-Béat, 20 feet in length, and their removal from the site and into the continuum of Roman distribution (the marble is used widely across southern Gaul and northern Spain). But the most remarkable feature is the dedication to the Roman god of wild nature, Silvanus, and to the personified mountains of Numidia. These quarry-men have an empire-wide sense of the geography of architectural stone. In their religious expression of satisfaction with their work, they join up the marble hills of Marignac with those of Numidian Chemtou. Marble mountains, wherever found, *are* in some sense both wild and Numidian.²³ At the same time, other parts of the northern mountains of Numidia were, we know, known as the Alpes Numidiae (*ILS* 9374). The geography of resources, iterated across an imperial geography, replicates and conjoins place: the mountains of Africa become the Alps, and are in turn transferred to the stone-rich western Pyrenees. At the same time, we need to reiterate that this is indeed a religious perception, and takes its place alongside other instances of specifically religious replication which can be found in the imperial period. Here is a sense of the commonality and interchangeability of mountains and stone-resources, adding up to an empire-wide conception. The mountains are wild, but they are very far from being impervious to the ingenuity of the consuming and inventing culture of Rome.

²³ Colleagues at Vandœuvres felt that the reading MONTIBUS NUMIDIS was insecure, and that the text might conceal a local toponym. The parallel cited in the text reassures me. DORCEY (1992) 59-60 locates the inscription in a Roman cultic ambit.

This is the positive equivalent to Pliny's diatribe, how it looked to those who gave him the impression to which he reacted in horror, of mountains as a collective, connected, resource for joyful exploitation.

3.2. *Problems with pastoralism*

Simply sacking the mountains for the material of which they were made is a straightforward enough strategy. Exploitation was not limited, however, to geological resources. Mountain pastoralism was as tempting a channel for Roman large-scale management of specialised resources mining or quarrying. The apparently very sudden explosion of the slave-based, large-scale, transhumant pastoralism of the *pecuarii* in the Apennines of the second century BC is of course the best-known example, and it has suggestive implications for other mountain regions.²⁴ It has very recently been suggested that there is rather unexpected evidence for a transformation of this kind in the archaeological record of the southern Alps. In the late Iron Age and Roman periods there is a conspicuous reduction in the number of complex sites. Rather than being evidence for abatement of productive activity, we may witness here a switch from the primacy of dairying for local consumption to the very different pastoral strategies which are based on transhumance.²⁵ That would in turn be the consequence of engagement in larger structures of exploitation and wider networks of consumption.

Once again, then, the enmeshing of mountain zones with other productive ecologies and economic systems offers alternatives to the notion that high mountains are by nature intrinsically suitable for animal husbandry, to essentialising the place of pastoralism in mountain social systems.

²⁴ WICKHAM (1988) for the medieval equivalent.

²⁵ CARRER (2015).

3.3. *Mountain demography and mobility as an opportunity*

My words “engagement in” are chosen with studied neutrality. The re-orientation of production and the management of resources towards a wider world can be endogenous or exogenous, and that is very clearly the sub-text of Strabo’s description of the fate of the Salassi. Here we see a vision of a polity which had formerly controlled both plainland and mountain, and which had exploited its own mineral resources. In the crisis which followed the competition with Roman public contractors for the (alluvial) gold workings, they continued to commercialise their resources, conspicuously their timber, and, even more interestingly, the control of passage by the routes through the mountains, and the raising of fiscal revenue from that control.

Here is a further, rather Fontaine-like, possibility. The real disadvantages of mountain terrains, the sheer difficulty of transit across rocky upper valleys, high passes, or summit-plateaux, become a real economic opportunity, and in so doing have played an important role in community formation, even ethnogenesis. The need of mountain peoples to organise and mobilise in pursuit of outward mobility and managed return also affects the development of communications-patterns which become central to the organisation of territory and community. Creating, improving, and developing routes through, which join up regions wholly outside the mountain, can be seen as another mode of intensification, and that too could be taken over by authorities from far outside the mountains themselves, as when Roman *portoria* replaced local tolls, in a pattern which is quite well attested.²⁶ In this too, the strategy presupposes horizons far beyond the world of the mountains themselves.

More obviously, the processes of outward mobility themselves, although they may often be the relatively straightforward product of individual need, lent themselves to many ways of being systematised and managed. The most celebrated endogenous

²⁶ See, for instance, the paper of FACHARD in this volume, pp. 19-73.

form that this took was the famous tendency of the mountaineer to leave home in order to raid the adjacent lowlands.²⁷ Hellenistic Aetolia is the type-case of a mountain community perceived to draw its identity and its cohesion from its use of this set of behaviours. As the Athenian *Hymn to Demetrius Poliorcetes* put it: “it is an Aetolian trait to raid those nearby — and now those further off too!”.²⁸ There are very many other instances.

The fate of the strikingly numerous (44,000) population of the Salassi was enslavement. The slave-trade — outward mobility though enslavement — a modality of mountain demography not found in more recent periods, turned the population itself into a resource of a more direct kind. This too could be a fact of community life, and was not only the result of the aggressive commercialisation of resources by newly successful and intrusive outside powers. All the upland zones adjacent to the Mediterranean fed its slave-dealing in Antiquity.

3.4. *The political character of mountains, and the politics of environmental geography*

The same play of self-determination and exogenous influence is to be seen in the construction of social and political institutions in relation to the characteristics of mountain ecology. On the one hand there are plenty of examples from Antiquity and from more recent periods of mountain communities developing co-operative behaviours and social forms in direct response to the challenges of managing the environment. Such effects are also frequently claimed of hydraulic landscapes.²⁹ The differences in technical knowledge and capital outlay may be one of the factors. Such ecologically-influenced political systems

²⁷ JOSHUA STYLITES *Chron.* 22, for raids of mountain dwellers against lowlanders and merchants at the end of Antiquity.

²⁸ Aetolia: POLYB. 5, 3, 7. *Hymn to Demetrius Poliorcetes*, ATH. *Deipn.* 253, lines 29-30; cf. ANTONETTI (1990).

²⁹ BELTRÁN LLORIS addresses some of these issues elsewhere in this volume.

relate importantly to one of the essential questions of our discussion: what are the size and boundaries of the units within which community functioned, and, given that community generates certain sorts of entitlement and redistribution, however circumscribed and ineffective, how did shared environmental constraints relate to the patterns of reallocating resources, in principle and in practice? The more general problem, then, of which the interaction of mountain with other environments is a particular case, is the interface and cross-dependence of agrosystems, a problem basic for understanding inequality and economic power in Antiquity, but which is still in its infancy.³⁰

There are three broad patterns in the relationship between community and mountain-environment. The first, the mountain state, is principally endogenous. Once again, an Alpine case, the kingdom of Cottius, makes a fine example.³¹ The second is the 'colonisation' model, in which such a region is simply replaced by an outside authority with institutions and structures developed for use elsewhere. This may retain a sense of the need to respond to local conditions. That, at any rate, has been argued of the Roman settlement of Samnite territories in the peninsular Italian Apennines. Saepinum or Bovianum might be regarded as having a mountain vocation, and their territories were organised accordingly.³² In a provincial context, the Roman *coloniae* of Pisidia in Asia Minor appear to be a similar case. This cluster of foundations was established under Augustus specifically to replace a previous self-consciously independent social formation, based on and in a knot of relatively high and inaccessible mountains. Here we see the manifestation in administrative practice of literary texts' perceptions and constructions of mountain-environments. As descriptions, they no doubt deserve our criticism for their lack of realism: but Roman decision-makers,

³⁰ For the interface of agrosystems, one model and pioneering study is ROYMANS (1996).

³¹ GIORCELLI BERSANI (2001); LETTA (2001); LETTA (1976); PRIEUR (1976).

³² See PELGROM / STEK (2014) on the distinctive character of Roman settlement in such upland areas.

thinking about the political management of landscapes, community and fiscality, used them prescriptively too, as they did when, eventually, mountain kingdoms such as that of Cottius were converted into Roman provincial structures of comparable size. It may be with a similar logic that mountains and highlands were managed as 'military zones' in the *oikonomia* of larger provinces such as Hispania Tarraconensis or Britain.

The third pattern of political re-framing is the most interesting, however, because it speaks to that ecological *désenclavement* which is one of this paper's main themes. It brings us back to the central problem of bounding the mountain, whether in scholarly discourse or in Roman policy. Rather than creating isolated enclaves on which outside dispositions turn their backs, the issue for those "good administrators" (*epimeletai*) envisaged by Strabo (above p. 83) is precisely how to manage the processes of interaction, how to join up what had never been joined before, as he strikingly puts it in the same section. This approach has to negotiate the relationships between mountains and adjacent regions, relations which involve coping with the constant inbound and outbound mobility of people which are the mountain environments' most important feature.³³ A good example (and a happier one than the fate of the Salassi) of a community established by Roman administration to straddle the boundary of mountain and plain is the case of the Anauni in the Val d'Adige.

Claudius' famous edict on the Anauni, Tulliasses and Sinduni (ILS 206) illuminates several of the themes we have explored. In the first place, as emperor, Claudius, no doubt like many other prominent Romans, claimed direct personal ownership of land and upland pastures across the southern Alps between Comum and Tridentum. Second, the traditional communities of the area were in a state of inter-related and nearly insoluble dispute with the neighbouring Roman cities which had been established on the edge of the mountains, like Comum, or deep

³³ COHN (1999) is an eloquent example, a model study of the negotiation of relations between collectives of mountain dwellers and the cities of the plains.

within them, like Tridentum. Third, and most important, the three peoples with whom Claudius makes a strikingly generous settlement exhibited a great deal of outward mobility, so that many were serving as soldiers in Claudius' own praetorian cohorts. Nor was this limited in social scale, since Anaunians were also to be found among the *decuriae* of judges at Rome. To engage with opportunities of this kind, of course, they had had to claim Roman citizenship, to which they had no formal entitlement, and this is what Claudius recognises in this edict. Finally, it should be noticed that the date of the edict is 15th March AD 46; milestones of the Via Claudia Augusta, the great road built *a flumine Pado ad flumen Danuum* by Claudius, also date from this year (*CIL* V 8003). So Claudius' concern for the area should also be linked precisely with the joining up of the previously unjoined, and with the definition of the mountain zone by means of its function as a gateway and as a zone of passage. Instead of isolation, remoteness, absence of connectivity, the separate character of mountains in Antiquity was made into a different and much more interesting kind of boundary, to which I now turn.

4. Crossing the bar: how mountain zones offer richly nuanced senses of boundary

Europe, in Strabo's attractive vision, is "many-faceted" (*polyschêmôn*).³⁴ Second, its *euphuria* ("natural advantages") makes men (the word is gendered) and peoples excellent, and able to make substantial contributions of its intrinsic goods to other places. Only the part bordering on the Scythian steppe is really uninhabitable. Of the inhabitable bits, some are difficult because they have terrible winters, or are mountainous, but even regions inhabited in poverty or banditry are made gentle

³⁴ On Strabo and mountains, see now MIGLIARIO (2015). Roughness, DENCH (1995) 126-129.

under good governors. Third, and most important for this argument, the mixture of tough and gentle is very productive: the whole is made *poikilos*, that is “intricately patterned”, “kaleidoscopic”, by plains and mountains, so that everywhere the agrarian and the civilised about the warlike (but the former is predominant).

Strabo's vision sees the whole continent as analogous on the largest of scales to the territory of a traditional *polis*, in a precocious example of that macro-scale thinking which becomes a commonplace in the age of the Antonines. High-altitude zones were certainly seen as a standard part of the suitably diverse resource base of a territory. From an enormous dossier, I cite the treaty between Rome and Termessus (Minor) in Lycia of around 160-50 BC, guaranteeing the Termessians the right of gathering wood (*xylismos*) on nearby Mount Masa.³⁵ Once again, the calculus of entitlement is to be seen at work. How are ecological resources to be apportioned among the organisational structures responsible for supervising their uses for different purposes? That can be achieved by peer interaction — negotiations between equipollent communities — or by aggressive competition; but it is also the product of the apportioning discretion of larger outside hegemonic powers, such as *koina*, Hellenistic kingdoms, or the Roman *res publica*. Alongside the possibility that regions of homogeneous ecological character might be regarded as separable, bounded by the ecotones which mark of mountainous or semi-arid zones, here is a different way of thinking, which privileges complementarity.

Mountains frequently therefore appear as part of a binary, either in the minds of observers or in the realities of the relations of economic interdependence. Some such pairs are rather loose and schematic, as when Italian or Arcadian mountains are more generically contrasted with their very various surrounding coastlands. A more precisely formulated case is the opposition

³⁵ *SEG* 60 (2010); see also VEAL, this volume.

of mountain and plain.³⁶ The plain becomes an object for definition and conceptualisation, analogous to the mountain, and developed by contrast with it, one stereotyped detail responding to another. Plains have not received their share of attention from students of ancient landscape-thinking, though they are already a prominent subject of reflection in Herodotus, who can quantify the surface of the Trachinian plain in detail.³⁷ The image of the Alps in ancient authors is likewise closely related to assessments of the Cisalpine plain.³⁸ This is no mere structural opposition, but a reflection of the interdependences of people and communities in the linked ecologies. When Emperor Vespasian (*ILS* 6092) gave permission to the Saborenses in southern Spain to move their whole urban centre to a place where it would have the fiscal advantages of better communications, following a long-standing tradition on urban improvements which attributed such planning already to the wise Solon in the sixth century BC, they were not abandoning or renouncing the upland part of their territory, but simply altering their geographical co-ordinates within it.

When the scale of the imagined vision is at its widest, mountains are given a role in the conceptualisation of the order of land and sea. One of the conventional features of mountains is, for instance, that they are remote from ports. Communications, here again, serve as the yard-stick, but it is not so much that mountains are a by-word for isolation, poor communications, difficulty of transportation, by contrast with a maritime world seen as a medium for easy access in all directions. Rather, this is the standard Mediterranean perspective in which the coastlands face in two directions, one naturally maritime, but the other, symmetrically, in the terrestrial direction, typically montane. This is the vision in which Our Sea is mirrored by a restricted

³⁶ The African case of this opposition has been analysed usefully by LEVEAU (1977), (1984) and (1986).

³⁷ HDT. 7, 199: 22,000 *plethra* (a little less than 2000 hectares).

³⁸ POLYB. 2, 14-16, Cisalpina as wonderful plain.

portion of the continent which is (less notoriously) Our Land.³⁹ The Romans of the late Republic and early empire similarly divided their hegemony into ultramontane and overseas, *prouinciae transalpinae* and *transmarinae*.⁴⁰ In this context, we should observe the significant fact that there were things beyond both barriers. Mountains form indispensable gateways between the regions on either side, something which Pliny makes the most of in his description of the Caucasus.⁴¹ To the functioning of these gateways, it is clearly also very relevant that the regions separated by major mountainous zones often had very different agrosystems, and indeed economic circuits based on them, as is advertised by the various specialists who describe themselves as *mercatores cisalpini* and *transalpini* at Comum, Milan, or Raurica.⁴²

Once again, then, the significance of mountain zones turns out to be connected with movement — short-term movements in and out of the mountain, transit through it, permanent resettlement inwards or outwards across the upland edge. Two rather different examples, which are rich in implications for this argument, may serve finally as a coda.

The Ligurian Apennines are a classic case of the Mediterranean mountain which is intimately linked with the sea. In the *retroterra* of Genoa, the distance between higher altitude zones and the seashore is strikingly short. The mobility of the mountain and the mobility of the sea have therefore sometimes been closely intertwined, and in the well-documented fifteenth century we can see some of the details.⁴³ The mountain and its demography, to begin with, were integral to the maintenance

³⁹ As in Herodian's usage, p. 77 above. Proprietorial Greek and Roman Mediterranean geography, PURCELL (2003).

⁴⁰ ARNAUD (1994).

⁴¹ Thus *Peuplement et exploitation du milieu alpin* (1991) for the unifying role of the Alps. For Pliny, see above, p. 81.

⁴² MASELLI SCOTTI (1994); cf. *AE* 1989, 899.

⁴³ GOURDIN (1986).

of the urban centres of the coast, and the economic opportunities of those localities were an essential part of the horizons of the mountain-dwellers. The social history of *inurbamento*, which brought villagers to the coastal towns and to Genoa itself, is the background to the extension of these currents of mobility to Genoese possessions overseas, such as Bonifacio, or the more distant *comptoirs* of the east. In this case, a specialised displacement of mountain-dwellers to the coral-fishing enclave of Marsacares near the modern Tunisian-Algerian border can be traced. Becoming an artisan, becoming a town-dweller, turning to the sea, and crossing it to work in the extended territory of Genoa, were inter-related modalities, associated (in that case) with steady demographic pressure on resources.⁴⁴ Where, in this example of far-flung mobility, should the debits and credits be accounted? In the mountain homeland, or the city, or the remote port?

It is also important that these mobilities entail major changes of vocation. Mountains contribute to interdependence by being the base for large numbers of people who are intrinsically mobile on a number of different rhythms. The consequences of their changes of vocation and their relocation include cultural change and major redistribution of wealth, as well as the part they play in the formation of social and political communities.⁴⁵ Where would we look for that in Antiquity? There is a whole history of the turn to the sea, 'becoming maritime', which might resemble the case of fifteenth-century Liguria.⁴⁶ But it is surely in the recruitment of soldiers, raiders becoming mercenaries, and all the innumerable variants of that process, that mountain-dwellers made the greatest contribution to the rearrangement of capital resources in the long history of Antiquity, in a process which is amply paralleled from mountain zones all over the Mediterranean in later centuries. Soldiers, moreover, are especially visible to us, and a great variety of other mountain-based mobility-cycles

⁴⁴ For the views of FONTAINE (2003), see above, p. 85.

⁴⁵ See, for instance, BLOCKMANS / HOLENSTEIN / MATHIEU (2009).

⁴⁶ PURCELL (2013).

are likely to have acted to shape and promote economic and cultural cohesion in the ancient Mediterranean.⁴⁷

Far from the commonplaces of natural backwardness and inevitable marginal immiseration with which we normally operate, the role of mountains, and of other margins, in ancient history is therefore to be essential generators of normal mobility. Some recognition of this special significance of the mountain may be discerned in ancient thought. It underlies Ammianus' admiration of the healthiness and demographic felicity of mountains. It may also be sought in that strange representation by Plato of the whole extended history of humanity as a movement out of the mountains and — eventually — down to the sea.⁴⁸ Understanding that mobility involves our including mountain dwellers and mountain resources fully in the distribution of opportunity and advantage and entitlement, and of risks and failures of these, across much larger economic and social catchments: which is the subject of this volume. As Strabo puts it in the passage paraphrased above (p. 96), "This continent [Europe] is very much favoured in this respect, being interspersed with plains and mountains, so that everywhere the foundations of husbandry, civilization, and hardihood lie side by side". He is no doubt of the intrinsic connectedness of the landscape, or that civilisation is based on enhancing it and reducing the inequalities which it can so easily represent.

Works cited

- ANTONETTI, C. (1990), *Les Étoliens, image et religion* (Paris).
 ANDREAU, J. / ØRSTED, P. (eds.) (1990), *Models of Regional Economies in Antiquity and the Middle Ages to the 11th Century* (Leuven).

⁴⁷ BRIANT (1982) makes a similar argument in relation to upland-plain relations around the 'mountain arena' of west Asia.

⁴⁸ Cf. n. 13 above. For parallels, DENCH (1995); RUSSO (2003).

- ARNAUD, P. (1994), "Transmarinae provinciae : réflexions sur les limites géographiques et sur la nature des pouvoirs en Orient des 'coré-gents' sous les règnes d'Auguste et de Tibère", *CCG* 5, 221-253.
- BINTLIFF, J. (1996), "The Mountain Peoples of Ancient Greece: The Relevance of World-systems Theory and Neo-Malthusianism to their Development", in E. OLSHAUSEN / H. SONNABEND (eds.), *Gebirgsland als Lebensraum (Stuttgarter Kolloquium zur Historischen Geographie des Altertums, 5, 1993)* (Amsterdam), 105-141.
- BLOCKMANS, W.P. / HOLENSTEIN, A. / MATHIEU, J. (eds.) (2009), *Empowering Interactions. Political Cultures and the Emergence of the State in Europe 1300-1900* (Farnham).
- BOSERUP, E. (1965), *The Conditions of Agricultural Growth. The Economics of Agrarian Change under Population Pressure* (London).
- BRAUDEL, F. (1972), *The Mediterranean and the Mediterranean World in the Age of Philip II*. Trans. from the French. Vol. 1 (London).
- BRIANT, P. (1982), *Etat et pasteurs au Moyen-Orient ancien* (Cambridge).
- CARRER, F. (2015), "Herding Strategies, Dairy Economy and Seasonal Sites in the Southern Alps: Ethnoarchaeological Inferences and Archaeological Implications", *JMA* 28.1 (2015), 3-22.
- COHN, S.K. (1996), "Inventing Braudel's Mountains: The Florentine Alps after the Black Death", in S.K. COHN / S.A. EPSTEIN (eds.), *Portraits of Medieval and Renaissance Living. Essays in Memory of David Herlihy* (Ann Arbor), 383-416.
- (1999), *Creating the Florentine State. Peasants and Rebellion, 1348-1434* (Cambridge).
- DENCH, E. (1995), *From Barbarians to New Men. Greek, Roman, and Modern Perceptions of Peoples of the Central Apennines* (Oxford).
- DORCEY, P.F. (1992), *The Cult of Silvanus. A Study in Roman Folk Religion* (Leiden).
- ERDKAMP, P. / VERBOVEN, K. / ZUIDERHOEK, A. (eds.) (2015), *Ownership and Exploitation of Land and Natural Resources in the Roman World* (Oxford).
- FONTAINE, L. (2003), *Pouvoir, identités et migrations dans les hautes vallées des Alpes occidentales (XVII^e-XVIII^e siècle)* (Grenoble).
- FORNASIN, A./ ZANNINI, A. (2002), "Montagne aperte, popolazioni diverse: temi e prospettive di demografia storica degli spazi montani", in A. FORNASIN / A. ZANNINI (eds.), *Uomini e comunità delle montagne. Paradigmi e specificità del popolamento dello spazio montano (secoli XVI-XX)* (Udine), 7-21.
- GIORCELLI BERSANI, S. (ed.) (2001), *Gli antichi e la montagna. Ecologia, religione, economia e politica del territorio. Atti del convegno, Aosta, 21-23 settembre 1999* (Turin).

- GOURDIN, P. (1986), “Émigrer au XV^e siècle: la communauté ligure des pêcheurs de corail de Marsacares. I, Étude de la population et des modalités de départ”, *MEFRM* 98, 543-605.
- HERZFELD, M. (2005), “Practical Mediterraneanism: Excuses for Everything, from Epistemology to Eating”, in W.V. HARRIS (ed.), *Rethinking the Mediterranean* (Oxford), 45-63.
- HOLLERAN, C. / PUDSEY, A. (eds.) (2011), *Demography and the Graeco-Roman World. New Insights and Approaches* (Cambridge).
- HORDEN, P. (2005), “Mediterranean Excuses: Historical Writing on the Mediterranean since Braudel”, *History and Anthropology* 16(1), 25-30.
- HORDEN, P. / PURCELL, N. (2000), *The Corrupting Sea. A Study of Mediterranean History* (Oxford).
- IZDEBSKI, A. (2013), *A Rural Economy in Transition. Asia Minor from Late Antiquity into the Early Middle Ages* (Warsaw).
- LETTA, C. (1976), “La dinastia dei Cozii e la romanizzazione delle Alpi occidentali”, *Athenaeum* 54, 37-76.
- (2001), “Ancora sulle civitates di Cozio e sulla prefettura di Albanus”, in GIORCELLI BERSANI (2001), 149-166.
- LEVEAU, P. (1977), “L’opposition de la montagne et de la plaine dans l’historiographie de l’Afrique du Nord antique”, *Annales de géographie* 86, 201-205.
- (1984), *Caesarea de Maurétanie. Une ville romaine et ses campagnes* (Paris).
- (1986), “Occupation du sol, géosystèmes et systèmes sociaux : Rome et ses ennemis des montagnes et du désert dans le Maghreb antique”, *AnnESC* 41.6, 1345-1358.
- MACKIL, E. (2013), *Creating a Common Polity. Religion, Economy, and Politics in the Making of the Greek Koinon* (Berkeley).
- MALTHUS, T.R. (1798), *An Essay on the Principle of Population, as it Affects the Future Improvement of Society* (London).
- MASELLI SCOTTI, F. (1994), “Un mercator transalpinus ad Aquileia”, in *Epigrafia della produzione e della distribuzione. Actes de la VIIe Rencontre franco-italienne sur l’epigraphie du monde romain* (Rome, 5-6 juin 1992) (Rome), 769-772.
- MATHIEU, J. (2000), *Storia delle Alpi 1500-1900. Ambiente, sviluppo e società* (Bellinzona).
- MCNEILL, J.R. (1992), *The Mountains of the Mediterranean World. An Environmental History* (Cambridge).
- MIGLIARIO, E. (2015), “Popoli e spazi alpini nella descrizione etno-geografica di Strabone”, in G. CRESCI MARRONE (ed.), *Trans Padum... usque ad Alpes. Roma tra il Po e le Alpi, dalla romanizzazione alla romanità. Atti del Convegno, Venezia, 13-15 maggio 2014* (Rome), 329-340.

- OUZOULIAS, P. (2014), “*Nos natura non sustinet*: à propos de l'intensification agricole dans quatre terroirs du nord des Gaules”, *Gallia* 71, 307-328.
- PELGROM, J. / STEK, T.D. (2014), “Roman Colonization under the Republic: Historiographical Contextualisation of a Paradigm”, in T.D. STEK / J. PELGROM (eds.), *Roman Republican Colonization. New Perspectives from Archaeology and Ancient History* (Rome), 11-41.
- Peuplement et exploitation du milieu alpin (Antiquité et Haut Moyen Âge) : actes du colloque, 2-4 juin 1989, Belley, Université de Tours (1991)* (Tours).
- PRIEUR, J. (1976), “L'histoire des régions alpestres (Alpes Maritimes, Cottiennes, Graies et Pennines) sous le haut-empire romain (I^{er} - III^e siècle après J.-C.)”, in *ANRW* II 5, 2 (Berlin), 630-656.
- PURCELL, N. (2003), “The Boundless Sea of Unlikeness? On Defining the Mediterranean”, *MHR* 18.2, 9-29, reprinted in I. MALKIN (ed.) (2005), *Mediterranean Paradigms and Classical Antiquity* (London).
- (2013), “Beach, Tide and Backwash: The Place of Maritime Histories”, in P.N. MILLER (ed.), *The Sea. Thalassography and Historiography* (Ann Arbor), 84-108.
- ROYMANS, N. (ed.) (1996), *From the Sword to the Plough. Three Studies on the Earliest Romanisation of Northern Gaul* (Amsterdam).
- RUSSO, F. (2003), “Il sistema insediativo sannitico nelle fonti letterarie”, *RCCM* 45.2, 277-304.
- STEK, T.D. (2014), “Roman Imperialism, Globalization and Romanization in Early Roman Italy: Research Questions in Archaeology and Ancient History”, *ArchDial* 21.1, 30-40.
- STRAUBE, H. (1996), *Ferrum Noricum und die Stadt auf dem Magdalensberg* (Vienna).
- TABAK, F. (2008), *The Waning of the Mediterranean 1550-1870. A Geohistorical Approach* (Baltimore).
- TZORTZIS, S. / DELESTRE, X. (eds.) (2010), *Archéologie de la montagne européenne. Actes de la table ronde internationale de Gap, 29 septembre - 1^{er} octobre 2008* (Paris).
- VETTERS, H. / PICCOTTINI, G. (1973), *Die Ausgrabungen auf dem Magdalensberg 1969 bis 1972* (Klagenfurt).
- VIAZZO, P.P. (1989), *Upland Communities. Environment, Population and Social Structure in the Alps since the Sixteenth Century* (Cambridge).
- VIVIERS, D. (1999), “Economy and Territorial Dynamics in Crete from the Archaic to the Hellenistic Period”, in A. CHANIOTIS

- (ed.), *From Minoan Farmers to Roman Traders. Sidelights on the Economy of Ancient Crete* (Stuttgart), 221-233.
- WALSH, K. (2014), *The Archaeology of Mediterranean Landscapes. Human-Environment Interaction from the Neolithic to the Roman Period* (Cambridge).
- WICKHAM, C. (1988), *The Mountains and the City. The Tuscan Apennines in the Early Middle Ages* (Oxford).
- ZANNINI, A. (2011), "Sur la mer, près des montagnes : Venise et le circuit de production et vente du bois (XVI^e - XIX^e siècle)", in A. CABANTOUS *et al.* (eds.), *Mer et montagne dans la culture européenne (XVI^e - XIX^e siècle)* (Rennes), 43-55.

DISCUSSION

F. Beltrán Lloris: My first comment has to do with a statement that I share absolutely: “Mountains do not act as edges like that. In general their edginess is always constructed”. In my opinion the Pyrenees can illustrate very well this affirmation, as I argued in a paper a few years ago.¹ Although we are used to perceive these mountains as ‘the’ frontier between France and Spain, or in ancient times between the Gauls and Hispania, there is also a clear cultural continuity across its western and eastern lands (Iberian and Vasconian-Aquitanian in antiquity, Catalan and Basque today) and various historical moments with states which exert control across the mountains like the Visigoth, the Carolingian, Navarre or the Crown of Aragon. The perception of the Pyrenees as a border seems related to its dependence on a central remote power or to the needs of modern national states.

My second regards the via Domitia, which seemed to connect not the Gauls and Italy, but the Rhone and the Ebro (and the road along the Mediterranean Hispanic coast) judging by the milestones erected around 110 BCE found in south France and north-eastern Spain.

N. Purcell: I respond to these comments together, since they have interesting connections. The Pyrenees are of course the setting for my example of the economic construction of mountains as the source of valuable stone (pp. 89-91 above), and in that sense are indeed a focus rather than a margin. They also offer an example of the complex ways in which Roman landscape and settlement planning responded to such environments. On

¹ BELTRÁN LLORIS, F. / PINA POLO, F. (1994), “Roma y los Pirineos: la formación de una frontera”, *Chiron* 24, 103-133.

the one hand, the Via Domitia did indeed join the great rivers in question, being conceived to put into communication with each other major features of a geographically conceived layout of lands and seas, and to express their relationship with the arenas of Roman magistrates' power which were the nascent *prouinciae*.² Conspicuous mountains had their place in such a construction too, and that must be the significance of the *iugum montis Pyrenaei* as the location for Pompey's great monument of his Spanish victory.³ Boundary between Spanish and Gallic provinces, it was no marginal backwater, but a conspicuous site for this *monumentum*. Pompey's other legacy in the Pyrenees, at the other end of the chain, was the reorganisation of local communities which is recalled by the name of the *civitas Conuenarum*, preserving both a perception of the susceptibility of peoples on the edge of the mountains to relocation, and the synoecistic act of the founder of the new city Lugdunum to be its *chef-lieu* (Strabo, 4, 2, 1; note also [Caesar] *Bell. Ciu.* 3, 19 on the runaways and robbers of the *saltus Pyrenaeus*). That the place was seen as sharing in the difficulties of access from outside which was such a strong mountain characteristic is suggested by the (probable) exile here of Herod Antipas (Josephus, *Bell. Jud.* 2, 183), a decision which expresses a conscious continuity on the part of Roman decision-makers with the detention of troublesome aliens in the less easily accessible centres of Apennine Italy (e.g. Livy 45, 42 on Alba Fucens). It is a pity that we do not know how far the *convenae* came from the foothills and the plateau of Lannemezan, and how far from the mountains. But the foundation, like that of Augusta Praetoria, is a characteristic mountain-edge intervention which elides the mountain and plain environment, overlapping both zones, and managing in an integrated manner the resource base of a plurality of quite different landscapes.

² On this pattern of thought, PURCELL, N. (2012), "Rivers and the Geography of Power", *Pallas* 90, 373-387.

³ CASTELLVI, G. / NOLLA, J.M. / RODÀ, I. (1995), "La identificación de los trofeos de Pompeyo en el Pirineo", *JRA* 8, 5-18.

A. Bresson: J'aurais plus une observation qu'une vraie question. Il y a eu un grand intérêt ces dernières années pour les variations chronologiques des niveaux de population et il est en effet particulièrement important, comme le fait Nicholas Purcell, de souligner qu'on ne doit pas uniformément penser les choses en termes d'augmentation, mais aussi, fréquemment, de recul. Mais la communication aborde aussi la question importante des 'mouvements horizontaux'. En effet, si l'on évoque d'ordinaire les déplacements forcés de populations réduites en esclavage, ou d'une autre manière les déplacements de populations liés à l'implantation de nouvelles cités ou de colonies romaines, on laisse sans doute trop souvent de côté les déplacements de populations libres, qui elles aussi pouvaient migrer d'une région à l'autre. Il suffit de consulter les listes des "étrangers à Athènes" pour voir l'importance du phénomène. Nulle contrainte administrative n'était nécessaire pour vouloir émigrer à Athènes, ou dans bien d'autres villes, sans parler de Rome à l'époque impériale. Ma question, sans doute bien trop vaste, concernerait l'impact des migrations de populations libres comme force de travail dans le monde des cités et dans l'univers impérial.

N. Purcell: This is indeed a major set of urgent questions, and even though the evidence is very scanty, here is a subject on which it is necessary to form a plausible opinion before making any estimation of ancient demographic realities. In the context of our discussion on differential access to resources, my paper hopes at least to promote the discussion. Rather than taking environmentally-defined regions such as mountains or upland tracts as the object of reflection and assessing their demographic and economic character from an introverted calculation of resources and carrying capacity, I am convinced (essentially on the basis of comparative evidence) that we need to allow for precisely such horizontal movements through which the limitations of relatively disadvantaged microregions could be corrected by activities elsewhere. The question then becomes how

to model the spatialities of such displacements and the social structures which patterned the experiences of the displaced.

P. Eich: How much continuity do you think there was between republican colonization in Central Italy and Augustan colonization, especially in Pisidia?

N. Purcell: This question, especially with its corollary, “what made the continuity possible?”, is a very important one. As with the hostage and elite prisoner practice to which I alluded in my reply to Professor Beltrán, resemblances and echoes of earlier Roman urban initiatives are to be found throughout the period from the Hannibalic War to the second century of our era. But both the non-Roman settlement-landscapes about which Romans made decisions, and the economic and social matrices within which settlements worked varied markedly from Samnite mountain-country to the Augustan Alps, and from Italy to the mountains of Anatolia. Nor was the world of Roman government so continuous: one need only cite changing morphologies of fiscal obligation over the centuries, and especially across the Augustan divide. Roman institutions themselves did not conform to the sclerotic traditions and ideologies which were once seen as so important.⁴ Were the resemblances simply historical allusions, and if so, what was their intended status? Who understood, if Hadrian refounded Jerusalem as a *colonia*, that Caesar’s refoundation of Carthage and Corinth could be seen as precedents for how to develop a resonant urban site which had been conspicuously punished as an enemy of Rome? One argument for a systematic awareness of the interest of precedent and allusion even across these apparently decisive ruptures might be drawn from the timelessness of the surveying tradition as we see

⁴ BISPHAM E. (2006), “*Coloniam deducere*: How Roman was Roman Colonization during the Middle Republic?”, in G. BRADLEY / J.-P. WILSON (eds.) (2006), *Greek and Roman Colonization. Origins, Ideologies and Interactions* (Swansea), 74-160, esp. 97-103.

it though the fragmented corpus of the *agrimensores*. Whatever the explanation, patterns on settlement-practice, even across wide distances and long periods, can hardly be accidental.

S. Fachard: The point you made on “the parameters of stability” is critical when dealing with an ancient population living and exploiting a (micro)region. To what degree we can call ‘inhabitants’ people leaving behind an obviously fragmentary archaeological signature is a challenge for every landscape archaeologist. I, therefore, take it as an important and absolutely necessary warning, but do you have any suggestions about how we can overcome this problem, especially for Classical Antiquity?

N. Purcell: In fact, landscape archaeology offers one of the only possible approaches to discerning ancient regional horizons. The article which I cited (Carrer [2015]) on how the archaeology of changes in settlement patterns might suggest a new orientation of southern Alpine mountains towards a systematic pastoral exploitation is a case in point. Artefact distributions as revealed by surface-survey can also be pointers to inter-regional orientation, engagement and interdependence, though they require considerable delicacy in interpretation.

R. Veal: Were not products moving from the mountains to elsewhere (i.e. exports), rather than people? Your answer pointed out the obvious: Soldiers, as movers out of mountain areas. And you went on to say we need to ask “How many people went how far?” Analogy helps to examine this. You also talked about ‘outsiders’ moving in — quarrymen, architects, and builders. Mountains were not backwaters, as specialists had transformative effects. I agree — things were much busier than the texts suggest — more exchanges, and more complex exchanges than we have allowed so far. I ask, how high and how wet were the mountains? This is in reference to your suggestion that we should not categorise mountains by rigid means.

N. Purcell: I did not have the space even to begin to investigate the differences in mountain environments (geological and geomorphological ones, as well as climatic), which are certainly very significant. The approach of McNeill, for instance, risks making Mediterranean mountains more homogeneous than is helpful.⁵

R. Veal: I am also interested in transhumance — and note that it was very old. I would like to understand the cause of the rise of the *pecuarii* — and suggest that the increase in mentions does not perhaps necessarily reflect a monopoly on transhumance — which must have gone on in some places — impervious to the market. Could you explain a bit more about the increase, how big, and when, and for how long?

N. Purcell: No doubt transhumance is indeed as old as animal husbandry, and it has equally certainly been susceptible to variations in scale, up — and down — ranges of distance, altitude, flock-size, animal-variety, engagement with redistribution-systems. I am sure you are right in saying that those Romans who profited from substantial expansion of transhumant husbandry in the last two centuries BC by no means monopolised opportunities for Italian mountain pasture.

Their apparently rapid engagement with the opportunities provided by the aftermath of the Hannibalic War however may well have represented a major — and sudden — shift in the scale of enterprises, and so makes a vivid example of the susceptibility of mountain environments to exploitation from far outside. Going back to your other question, it is worth emphasizing that the changing political and economic consistency of communities beyond mountain-zones was a variable as important for the trajectories of the mountains as their different physical characters.

⁵ MCNEILL, J.R. (1992), *The Mountains of the Mediterranean World. An Environmental History* (Cambridge).

The Lycian mountains, Mount Lebanon, and the Pyrenees are different environmentally: but their historical experience depended on their very different neighbours.

F. Hurlot: J'interviens de façon spécifique tout d'abord pour souligner — et saluer — le haut degré de conceptualisation de votre exposé, qui contient de vraies questions et plusieurs *caveat* fondamentaux, mais aussi pour prolonger la remarque de Fr. Beltrán Lloris à propos de l'inscription de Sabora. Ne pensez-vous pas que le vocabulaire utilisé par cette inscription (le verbe *exstruere*, la formule *in suo nomine*) renvoie à une réalité urbanistique autant, sinon plus qu'à une réalité fiscale? Mon interprétation de ce rescrit impérial est que le transfert de l'*oppidum* dans la plaine (*in planum*) découle de la volonté de ce nouveau municipé flavien de se doter d'une parure monumentale correspondant au decorum d'une cité romaine et se déployant dans la plaine plus facilement que sur les hauteurs. L'emploi au début de la phrase de l'expression *multis difficultatibus* laisse du reste penser que les problèmes à régler par la cité étaient multiples.

N. Purcell: Yes, the spaciousness and regularity of the site in the plain are certainly very significant. The planned and managed layout and extensive monumental architecture of such a city did not amount to a separate ideology, though: they spoke of order and prosperity, public and private. *Kosmos* was enabled by fiscal sufficiency and citizen wealth, and served as eloquent testimony to both.

G. Reger: It seems to me that there are three optics (at least) through which we can view the question of how long people have lived in a place: what the ancient residents themselves thought; what ancient outsiders thought; and what we as present-day historians think. How each group might respond to a question like "How long have you been here/there?" may depend in part on who is asking the question, why the question is being asked, and how it should be answered given the respondent's

assessment of his/her self-interest. I come back to the Gonnoi inscription I mentioned this morning in my comment in the Fachard discussion, see p. 63, in which a local, interrogated by a boundary commission on claims to land by the two disputing *poleis*, appeals to his own experiences as a shepherd, what he had heard from his elders, and the burial of a local who'd been given land and a building by Gonnoi.

N. Purcell: This question of variously perceived familial or household continuities is a very ticklish one, and deserves more research. The Gonnoi inscription is a very rich example! Here I'll only say that I think your words "here/there" are particularly telling: the conceptualisation of the spatial co-ordinates with which claims of belonging are focused is another really interesting variable in this discourse. It is also a key element in that sense of larger or narrower territoriality which I tried to evoke in my paper. Where did the mobile Anauni think they "came from", and in what sense did they (and how much of their family-history?) "belong" there? A valley? A cluster of valleys? The Southern Alps? Transpadana? Italia? Such localisations are an essential part of the assessment of interdependence or entitlement.

S. von Reden: A rather broad question, but quite crucial for our project of political landscapes providing a framework for economic development: why are you so hesitant to talk about the Roman 'state'? It may not always be 'the' (what?) state that intervenes anonymously in marginal mountain regions, but is it not state institutions which give individuals the authority to intervene effectively in mountain communities?

N. Purcell: My caution about predicated planning or intervention of the 'state' derives in part from hesitation as to how appropriate it is to speak of states in the modern sense in pre-modern and non-Western contexts.⁶ More importantly, though,

⁶ LUNDGREEN, C. (ed.) (2014), *Staatlichkeit in Rom? Diskurse und Praxis (in) der römischen Republik* (Stuttgart).

language which privileges and reifies certain sorts of public authority risks unhelpfully oversimplifying the strikingly wide range of influences and interventions which bore on production and redistribution in Antiquity. Paradoxically, adopting too firm a conception of the ‘state’ as an agent conduces to a binary vision in which the private, non-state domain is also constructed as too autonomous and strongly defined. Intervention or exploitation by ‘the authorities’ in the contexts which I am envisaging might mean the actions of: a local élite group, a long-distant high-status proprietor, the agents of the emperor, or of an official of the Roman *res publica*, a nearby town-council, a corporate body of a nearby community such as a *collegium* or temple — and so on. The difficulty of teasing apart public and private interests, or saying which of the former are those of (which kind of) ‘state’, seems to me to be the point.