REDISCOVERING COLONISED LANDSCAPES: THE FIRST EUROPEANS AT THE MUSTAGH PASS, KARAKORAM HIMALAYA, INNER ASIA Kenneth Hewitt

#### INTRODUCTION

"... Explorers had been key figures in the Central Asian question for many years..."

The Karakoram Himalaya forms the high mountain headwaters of the Indus and Yarkand Rivers (Figure 1). It would be difficult to overstate the role of early European visitors in how the region is viewed today. Their travel writing, map making, scientific and mountaineering expeditions, or, more exactly, the way they are now recalled, continue to shape what visitors expect to find today. There are more reprints of early travelers' books in the stores of India and Pakistan than recent ones. Such newer works as are available mostly take material and ideas from the same nineteenth and early twentieth century sources. The 'imperial vision' has not gone unchallenged, especially in postcolonial studies, but the older imagery remains quite robust. It is reproduced or reinforced by educational and government institutions, by development agencies as well as in tourist brochures (Table 1). Apart from the dubious quality of these views and in today's postcolonial contexts, how well do they represent what the explorers themselves had to say?

This essay looks at two early European journeys to the West Mustagh Pass (5,600 m); that of Adolf Schlagintweit in 1856 and H. H Godwin-Austen in 1861. The two Mustagh Passes, East or 'Old' and West or 'New', had been used for centuries by Inner Asian travelers, migrants and merchants going between Kashmir and Chinese Turkestan. Their rugged, glacier tracts made them the least attractive links in the southern 'Silk Road', but useful for the inhabitants of the high mountain valleys and others who wished to avoid too much official interference.

Schlagintweit was probably the first European to explore the glaciers below the passes. Recently, I repeated his and Godwin-Austen's journeys to help understand the context and record of what they saw. With the aid of local shepherds and archival documents it was possible to resolve several controversies about their itineraries. Direct engagement with where they went, and with the

<sup>1</sup> Alder, 4

For example, Vigne, 1844/1987; Drew, 1875/1980; Younghusband, 1904/1994; Schomberg, 1935/2000.

Mason, 1955; Keay, 1977, 1979; Bonavia, 1988, 182-193; Dani, 1989; Imran Khan, 1990, Part III.

The Exploitation of the Landscape of Central and Inner Asia, edited by M. Gervers, U. Bulag and G. Long. Toronto Studies in Central and Inner Asia, 9. Asian Institute, University of Toronto, 2008.

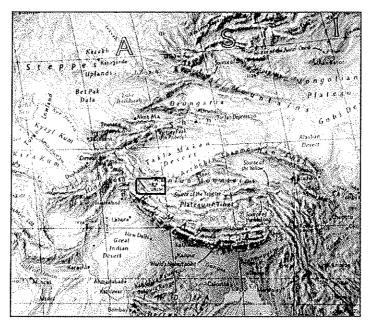


Figure 1: Central and South Asia showing the study area. The Mustagh Passes are at the centre of the rectangle.

people still living there, helps to clarify the landscapes they recorded and deconstruct some High Asian stereotypes.<sup>4</sup>

Three particular findings are emphasised. First, a more nuanced picture emerges of the explorers' own materials. Second, there were important differences in what they found and what came of these, seemingly very similar, journeys. Thirdly, a remarkable, centuries-long continuity of environmental knowledge was found among shepherds of the high pastures. Note that this is an area one recent UN agency report describes as "uninhabited" and "undesignated"!

In fact, nowhere that those first visitors went was unknown to local people or without value for them. It is clear that local knowledge was indispensable to the explorers and achievement of their goals. In some way it must underpin their discoveries. They, at least, made no effort hide this. However, it is something often absent from later writing. Meanwhile, it will be shown how certain larger historical events in British India and Europe influenced the fate of their work, what would be remembered and what was ignored.

'Landscape' is an appropriate theme since the region is rarely represented as anything else; indeed, rarely more than 'natural' landscape. It is another special legacy of the discoveries and outsider perspectives. Accounts foreground spectacular peaks, geological forces, great glaciers and river gorges. The exceptional nature of the geological foundations, the high mountain landscapes,

<sup>4</sup> Cf. Alder, 1985

s IUCN

**Table 1:** The continuity of colonised landscapes: selected images from the literature of the Karakoram (emphases added)

- ...The Central Karakoram then, are [sic!] basically undisturbed, uninhabited and undesignated lands... (IUCN, 1992, 5)
- [These] mountain ecosystems tend to be relatively unstable, unresilient, and of low inherent productivity... (World Bank Report, 1990, 91)
- ...Here are... the greatest precipices on the land-surface of the earth, the most rapidly changing topography known to man, and the greatest concentration of 7000m peaks...the greatest number of natural hazards known to man... [and] conditions of human life amidst an unimaginable [sie!] chaotic landscape .. (Miller, K.J. 1984, xv)
- ... One wonders why and how people ever came to settle in *such a violently inhospitable region*, where climate and terrain are equally opposed to human survival... (Dervla Murphy, 1977, 50)
- ...the solitudes of the Karakoram....these empty regions.....across this blank space was written one challenging word *Unexplored*... (T.G Longstaff, 1938)
- ...human life in these barren Karakoram valleys is a continuous struggle for existence... (Visser, 1926, 79, qu. Butz, 1996)
- ...the finest natural combination of boundary and barrier that exists in the world...it lies amidst the eternal silence of vast snowfields and ice-bound peaks... (Holdich, 1916, 280)
- ... Enclosed in such a mighty frame the space of human life and action seems microscopic, so small is the spot it occupies, so completely is it lost in its surroundings... (Robertson, 1898)
- ...the natural boundary [is] to the north... The highest peaks are found... near the Mustagh pass, in the midst of immense glaciers... The range is...quite barren... unfavourable to vegetation of any kind... also very little animal life... (Intelligence Branch, Calcutta, 1890, 434)

is not in question. What disappears is how most, if not all, is either inhabited or part of the resources, histories and values of local populations. As Allen points out:

The dichotomy between natural and cultural literature on the Karakorum shows up dramatically [in his sourcebook bibliography]. For every five hundred geology articles on the Karakorum mountains we have less than one article that might give us insight into how the indigenous population creates and values its habitat...<sup>6</sup>

Rather, as the stereotypes in the quotations in Table 1 indicate, visitors are led to expect a mountain fastness and 'untrodden' ways. The region is commonly

<sup>&</sup>lt;sup>6</sup> Allen, 10

portrayed as 'remote', 'unspoilt' and, most dangerous of all, 'empty'. If a human presence is mentioned, it is likely to concern the explorers and others from British imperial history, revivals of "Great Game" thinking, or the small vestiges of ancient 'civilisations' and prehistory. If anything is said of today's inhabitants they tend to be represented as figures dwarfed by their surroundings; at best, an exotic or quaint contrast to the modern world, at worst, backward and underdeveloped through their own limitations or a harsh environment. Moreover, that part of the literature which is primarily cultural is less widely known and, somehow, has little impact on travel writing or scientific work.

In a way this is the opposite of the stereotypes Hekimoglu identifies for Central Asia. In her view it is given far more political and economic significance than its history or present conditions can sustain: the heady weight of metropolitan geostrategic and Silk Road fantasies. The Karakoram, in a parallel discourse, has been deprived almost entirely of a human presence, let alone its own history, cultural connections and social responses to millennia of outside interference.

Ideas of *landscape* also need to be borne in mind. Often it is treated as a synonym for the visible environment, the physical world 'out there'. The literature of exploration and discovery assumes the sense of a transparent explorer's eye; of heroic but essentially fact-gathering activity, extending the 'known world'. Supposedly it contributes, as one study of Karakoram exploration put it, to "...universal human awareness..."

However, landscape is equally dependent on technical, perceptual and conceptual notions: the '-scape' aspect, if you will. It is conveyed by the original sense of cultivated land; something shaped by human or divine hands, underlying natural laws or providence. Consider the characteristic products of exploration and discovery; the log books and maps, landscape paintings and graphics, photographic images. They are modern artefacts or devices; more or less abstract, selective or contrived. And they in no way prevent upbringing and education, fashions, interests and world views, from entering the representations. This much is inescapable. Landscapes are constructed within the training and techniques of those who produce the relevant images. In the stricter sense of critical philosophies of knowledge they are 'socially constructed', and according to the powers and preoccupations of interested groups, those acting as gatekeepers for, and promotion of, given views.<sup>9</sup>

There is a huge difference between being critically aware of its implications and blithely assuming modern Western methods have outflanked the problem. It is not sufficient to merely recover the facts, whatever they are. One must be alert to the shaping hand of 'culture', especially the dominant one. It does not diminish the value of the landscape artefacts *per se*. Any intelligent and intelligible activity is constructed, a synthesis of complex and disparate perceptions

<sup>7 2007</sup> 

<sup>8</sup> Dainelli (1959),15

<sup>&</sup>lt;sup>9</sup> Berger and Luckman

into communicable forms. To challenge or seek alternatives to given examples may be essential, but cannot change this.

Here, at least, an attempt is made to reconstruct the contexts of engagement with mountain landscapes. The goal is to recover some of the processes of selection and representation by which the explorers made sense of what they found. It involves examining how their reports, drawings, photographs and maps were obtained or produced. It does require an awareness of the 'interests' and cultural biases that intervened in their own minds, and among others who received and influenced the results. Today there is an added problem of openness in the face of two tendencies. One seems unable to recognize anything but colonial and imperial stereotypes; the other seeks to recover European exploration for a re-vindicating or apologetics of empire.

A third approach seems preferable; one that returns to the primary evidence and, in this case, revisits the places concerned. So far as one can, it means focusing on the historiographic materials. The original sources and journeys provide the basis to reconstruct the contexts and grasp something of the processes whereby colonial figures came to represent the landscapes they encountered. Returning to the places concerned brings its own challenges as well as insights; of remaining alert to earlier contexts, the methods of observation and record.

A range of conditions influenced how these and other explorers approached their tasks and the fate of the results (Table 2). Those need to be kept in mind to develop a more nuanced sense of what can and did influence their legacies. Some elements are emphasised that had been ignored, or had an unexpectedly large influence. The high mountain places and human contexts of the journeys are given particular emphasis. Historical changes outside and after the explorers' time also had singular impacts on what was remembered and neglected, and will be reviewed after the journeys are reconstructed.

# THE JOURNEYS OF SCHLAGINTWEIT AND GODWIN-AUSTEN

Adolph Schlagintweit (1829–1857) travelled to the West Mustagh Pass (5,370 m) by following the Braldu and Dumordo Rivers and ascending Panmah Glacier. H. H Godwin-Austen (1834–1923) followed by an almost identical route five years later. Schlagintweit and two of his brothers were in India to carry out the Geomagnetic Survey for the East India Company. They had travelled extensively in the Himalaya before Adolph went alone to explore the Central Karakoram and Nanga Parbat ranges.<sup>10</sup>

A military officer, Godwin-Austen went to the Karakoram in 1860 and 1861 to do mapping for the Survey of India. Later he carried out surveys in the eastern Himalaya, Sikkim, Bhutan, and the Naga Hills, much of it in areas the Schlagintweits had visited. Fever contracted during field work cut short his career in India, and he returned to Britain in 1877. However, he recovered suf-

<sup>10</sup> Kick, 1960; 1982

 Table 2: Conditions that influence exploration and landscape ideas (those emphasized in the paper)

#### CONTEXT

- · The goals, training, experience and character of the explorer
- · The expedition mode
- · The physical landscape
- Local guides and 'local knowledge'

## MEDIA AND AUDIENCES

- Differences among and roles of written documents, graphics, photos, mapping, scientific observations
- Distinguishing between personal diaries and letters, technical reports, professional articles, public lecture, published books
- · Specific matters that influenced the fate of given discoveries

### 'GATE-KEEPERS'

- · Peers
- · Professional organizations or agencies
- Political and security apparatuses
- · Editorial intervention
- Fashionable and popular ideas

## HISTORICAL CONTEXT

- · World political and cultural
- Intervening developments, trends and crises

ficiently to write some major works on Indian geology. He remained an influential figure in discussions of Himalayan exploration until his death in 1923.

Both journeys to the Mustagh Pass were a small part of each man's Himalayan or Karakoram travels. They involved just two or three weeks out of months of wide-ranging exploration. Nevertheless, they offer some singular insights into the processes of discovery and landscape ideas. Their journeys were repeated, partly to clear up some disagreements in published work, in particular about Adolph's route, and to compare archival and published evidence with conditions on the ground. For present purposes the results are briefly summarized before turning to landscape themes.

#### The Itineraries

There has been confusion over Adolph's route and more than a little injustice to his achievements. His brothers' attempt to reconstruct his journeys from

field notes sent him the wrong way! They mistook the "Mustakh Glacier" for the Baltoro, as opposed to the Panmah and, like many later accounts, assumed he went to the East Mustagh Pass. Dr. Wilhelm Kick and Dr. Stefan Schlagintweit cleared up many of these confusions by careful analysis of original documents, and kindly shared their work with me. However, uncertainties remained.

The sequence of camp grounds was established with the help of local guides and shepherds (Figure 2, Table 3). They helped resolve confusion about names (see below). It was rarely possible to exactly reoccupy the view points of Schlagintweit's water colours. There have been changes in the terrain, but confusion also comes from the practice of improvising foregrounds that were not to scale or directly related to the main panorama. Both explorers used this convention. However, formerly uncertain locations were identified for the important pictures (see Figure 8). In terms of the history of exploration, retracing of the itinerary left no doubt that Adolph did reach the West Mustagh Pass; hence he is the first European known to have done so. 15 Beginning with Godwin-Austen, the English-language literature, even that which sent him the right way 16, says that he did not reach the pass. 17

<sup>&</sup>lt;sup>11</sup> H. Schlagintweit-Sakunlunski, v.3

<sup>&</sup>lt;sup>12</sup> Dainelli, (1959); and Hewitt, (1989). Hedin, in his monumental "Southern Tibet" (1917 v.3 Ch. XX) discusses the Schlagintweit discoveries but ignores Adolph's journeys. His map (after Saunders) does not show either the Panmah Glacier or Mustakh Passes.

<sup>&</sup>lt;sup>13</sup> Kick 1993. The Schlagintweit field materials are in the Schlagintweitiana collection in the Staatsarchiv, Munchen.

<sup>&</sup>lt;sup>14</sup> In sequence towards the pass, the water colours in the "General Register Numbers" and reproduced in Kick (1993) were confirmed to show:

a) #639: a view towards Skamri Peak from Shingchukpi camp ground

b) #640: a view towards the junction of Nobande Sobonde, with Maedan Glacier in the left centre background

c) #638; portrays the camping area and tributary glacier at Tsoka or "AS's "Tsokar" (Figure 4). Kick (79) designated it "Panmah: Chiring?"

d) #635; a view over the Firn basin of the upper Chiring towards the pass; as Kick (77) says, "...on the Balti side"

e) #636: clearly depicts the upper Chiring (his "Chiering") looking back down to Tsoka in the distance. It is from below the pass, rather than "..vom Pass.." as Kick says (78).

f) #637: looks down from the pass over the upper Sarpo Laggo Glacier and, as Kick (77) says "a view towards Turkestan" on the Chinese side.

This cannot be attributed to errors based on his own fix of his position at Lat.36.01 Long. 76.02, which would have put him 22km to the north west of the pass, near the summit Skamri Peak! The East Mustagh Pass (5,422m) is well to the east (35.50, Long.76.15). There is not much difference in the elevations Godwin-Austen gave for the West Mustagh Pass (approx, 18,105 ft, or 5,520m).

<sup>&</sup>lt;sup>16</sup> Godwin-Austen, 36

<sup>12</sup> Mason, 1955

**Table 3** Adolph Schlagintweit's itinerary from Askole to the West Mustagh Pass and back, August 1856<sup>18</sup>

DATE 1856	(n)CAMP/ STOPS (AS names)	Height (m) AS	Location AS/ (rev.)	Present name	Local info, and translation <sup>i</sup>
14.08	1. Askoli	2960	35.41 N 75.56 E (7)	Askole	Highest left bank village
15.08	Biapo/Bepho Gl.	3010		Biafo Gyang	the cock
15.08	2. Gore Brangsa			Khoro Brangsa	stone house
16.08	Bochle Jhiagma			Bochli Chiangma	leafy willow
16.08	Dera Gore Bransa	ada a da Sa La Ayo ang a manana a mada ta Ayo		Khore Brangsa	round house
16.08	3. Zogg			Tsok	thorny bush
17.08	Mustakgletscher	3529		Panmah GL <sup>ii</sup>	
17.08	Domo Chise		1// 1//	Dumordo	houses + pasture?
17.08	4. Shurshing	3823		Shushing	pasture
18.08	Pharreol Gl.			Fariole	on the other side <sup>hi</sup>
18.08	5. Shinghachbi <sup>w</sup>	4131	35.58 76.03	Shingchabi Biaha	the meat divided (pasture)
19.08	Cheiring GL			Chiring Gl.	
19.08	6. Tsoka	4793	35.57 76.03	Tsoka	
20.08	7. Lager Cheiring	5127		Chiring mor- aine	
21.08	8. Lager: Firn des Mustakpasses	5483		Firn basin	
22.08	Mustak Pass	5797	36.01 (92) 76.02 (+.06)	West Mustagh Pass'	snow range pass
22.08	9, Lager Cheiring				ntinued on page 4

<sup>&</sup>lt;sup>18</sup> Based on field surveys. Schlagintweitiana, Kick. (1993 and personal communications), Shipton (1950).

DATE 1856	(n)CAMP/ STOPS (AS names)	Height (m) AS	Location AS/ (rev.)	Present name	Local info. and translation <sup>t</sup>
23.08	10. Tsoka				1.11186.8811.99.000.000.000.000.000.000.000.000.00
24.08	11. Skamri			Skamri <sup>vi</sup>	.   1   1   1   2   2   3   3   3   3   3   3   3   3
25-26.08	12. Shinghachbi <sup>vii</sup>	(see above)			
25-26.08	Shushing				
25-26.08	Domoltir	3814		Dumulter Gl	
27.08	13. Chingma		-	Shingza	first wood
	Chiangma Bianga			Bochli Chiangma	leafy willow
	Gore Bransa			Khoro Brangsa	stone house
	Bepo Gl.			Biafo	
28.08	14. Askoli			Askole	

<sup>&</sup>quot;Present" names on 1/250,000 topographical maps; local names and translation of meanings by Apo ("grandfather") Broko and other shepherds in the Dumordo Valley.

Survey of India, called "Palma Glacier" by Lydekker (1881), see Kick (op cit).

Treated as the name of a small tributary glacier on the right flank, but local shepherds do not recognize this as a proper name. It means "on the other side" and was probably pointed out to AS or his interpreter from Shurshing.

onursung.

Also written as "Sheny Chuchbi" and "Schinghachbi".

Also called "new", but probably used as preferred alternative to "East/Old" Mustagh Pass (see below)

Camp possibly at Drenmang ("too many bears"), but local shepherds say Ska(bo) Ri means "dry slope", more appropriate to Choktoi than Shipton's (op eit) more humid Skamri Peaks on the north side.

Also written as "Sheny Chichbi" and "Schinghachbi".

Table 4: H.H. Godwin-Austen's itinerary from Askole to the Upper Chiring Glacier Pass and back, July, 186119

DATE 1861	(n)CAMP/STOPS (G-A names)	Height (ft)	Present name	Local info. and translation
30.06-1.07	L Askole (Braldoh		Askole (Braldu R.)	Highest left bank
	River)		(	village
7/11/3/11/1/11/11/11	Biafo	10,145	Biafo Gyang	= the cock
2.07	2. Korophon		Khorophon	Big stone like a bowl
	Biaho River		Biaho Lungma	Name Value and the major to the territory of the second to
3.07	3. Tsok		Tsokh	thorny bush
4.07	4. Punmah	10,318	Panmah GL <sup>n</sup>	
	Dumulter		Dumulter Gl.	
5.07	5. Chongnolter		Chongpar	(pasture)?
6-7.07	6. Shingchukpi		Shingchabi Biaha	the meat divided (pasture)
8-10.07	7.Skeenmung		Skinmang	too many ibex
(9.07)	Nobundi Sobundi		Nobande Sobonde	
(9.07)	Drenmung		Drenmang	too many bears
(10.07)	Midego Peak	(18,342) <sup>iii</sup>	Midego Pk.	?
PHYARAFI 17/101 14.4 1 Advantal available to	Tsokar	-	Tsoka	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
11.07	8. Chiring (camp on glacier)		Chiring	
12.07	(Chiring firn basin)	(To) 17,301°	Firn basin	
	9. Skeenmung			
13.07	10. Shingchukpi			
14.07	11. Tsok		(see above)	
15.07	Dumordo		Jullah	rope bridge
	Biaho River		Biaho Lungma	mano em su sancana mano sun na menamo su mon
	12. Burdomul		Bordomal	TERRORE DESCRIPTION OF THE PERSON OF THE PER
16.07	13. Biaho "Ganse"		Baltoro Glacier	***************************************
17-20.07	14-17. (on the		***************************************	
	Baltoro Glacier)			
21.07	18. (? Paiju) <sup>vi</sup>		Paiju	salt
22.07	19 Korophon		(see above)	
23.07	Lower Biafo Gl.			
	20. Askoli			

<sup>&</sup>quot;Present" names on 1/250,000 topographical maps; local names and translation of meanings by Apo ("grandfather") Broke and other shepherds in the Dumordo Valley

AS's "Mustakgletscher"

The survey station where G-A drew the sketch for the well-known water colour of the Upper Panmah Gl.

Turned back about 1 mile distance and 500 ft below the West Mustagh Pass.

G-A refers to place where Askole people built a 'rope'-bridge---actually woven willow twigs---known as the 'jullah'. Today, the stream from Pamnah Glacier to here is called the Dumordo River.
"...first bit of jungle.." below the terminus of Baltoro, probably Paiju Camp

<sup>19</sup> Based on field surveys, Godwin-Austen (1864), Shipton (1950)

Godwin-Austen's journey was made a month earlier in the year (Figure 3, Table 4). There is less uncertainty about his route. His camp sites are clearly marked on the map that accompanied the 1864 paper. The route is almost identical to Schlagintweit's. Many of the same camp sites were used. It may seem, therefore, that Godwin-Austen's route was based on his predecessor's. Perhaps it was, but he does not say so. Then there is the way terrain affects the choice of routes and, especially, the dependence of both explorers on local guides and practices. On an earlier expedition to Panmah Glacier, unrelated to the two explorers, it turned out that I had followed almost identical routes and camped in almost all the same places. The actual paths and stopping places had been established long ago, and the explorers, like me, mostly followed routes shown by local guides. Options for alternative routes are, in fact, very few and, barring logistically difficult and expensive detours, rarely pursued (Figure 4 a & b; Figure 5). Godwin-Austen did make small detours to reach high viewpoints (see below). They were, however, day trips at most.

The role of terrain in these exploratory journeys reinforces the importance of physical context or terrain, and coming to terms with conditions in each place. What is seen depends largely on the routes followed, the immediate conditions of weather, light, the seasons of plant and animal; even conditions at the particular hour when given features are in view or obscured. The traveller must be suitably prepared and healthy, which is not always the case. There are conditions of the, always mobile, expedition context. Finding and setting up camp, camp routines, affect the rhythm of what is seen and, in the high mountains, you have to carry most of what is needed for survival. Godwin-Austen says he left Askole with "66 men" carrying loads for the journey. Schlagintweit had more instruments and tasks to perform, and probably had a bigger entourage. Such large groups make for a busy life on the trail and at camp sites. The notion of the solitary European explorer braving new ways fades a bit.

The explorer's preoccupations, or later selective recollection and editorialising, may alter or ignore these matters. Yet, the constraints of place and the expedition can be decisive in what is actually seen or likely to remain as the strongest recollections.

The parts of their journeys that are most often recalled came after they reached and ventured over the Panmah Glacier. Here, as Godwin Austen describes it:

"... We were now fairly within an ice-bound region, which for bleakness and grandeur is perhaps not to be surpassed; its glaciers exceed those of any of the mountain-ranges of the world, and are equalled only by those of the arctic and antarctic regions..."<sup>20</sup>

His other descriptions of the tributaries of the Panmah Glacier, especially from high viewpoints, represent the classic vision of the Karakoram; descriptions that sent me and so many mountaineers there. I am not suggesting that they are

<sup>29</sup> Godwin-Austen, 30

any less compelling today but they do present a very selective view of these journeys, as well as of the region.

The Europeans may have been preoccupied with readings from boiling point hypsometers, pedometers, sextants and theodolites; with mapping or topographical sketches. Yet, their observations, the sketches they made, were at stopping places on ancient trade routes; along paths to high pastures and at camps used by hunters. They went nowhere without the company and assistance of Karakoram villagers, as well as guides from Kashmir. Godwin-Austen not only described the difficulties and perils of his own failed attempt to reach the Mustagh Pass, but of an encounter with four Baltis who had come over the Pass from Yarkand a few days earlier.<sup>21</sup>

It seems there must be an underlying shape and approach to the 'discovered' landscape that came from local, human sources. It may be easier to ignore because only individuals from one of the cultures involved sorted out and communicated the knowledge exchanged.

#### KNOWLEDGE LOST AND FOUND

Place names, a focus of colonial explorations, offer some small but significant pointers. Identifying the places recorded by the explorers was essential for reconstructing their itineraries. The meaning and resonance of the names partly reflects the language and history of resident societies, partly their involvement in larger regional and continental history—rather than 'remoteness' and 'isolation'. Many of the local names are of Turkic origin, especially in the highest valleys. Further down, scattered among the predominantly Balti (Tibetan) ones were Urdu, Hindi or Persian (Farsi) names.

Both explorers adopted a policy of trying to establish geographical names of local origin, already widely favoured and later to become official British policy.<sup>22</sup> However, much as happened to the English surveyors in the Ireland of Brian Friel's (1981) play "Translations", the results could be garbled for both parties! In the Karakoram of Baltistan the problem was complicated because the explorers brought interpreters from Kashmir; men who would come to be referred to as "The Pundits", literally 'teachers'. They came from small communities of the Brahmin caste who performed literary and administrative duties for the rulers of Kashmir. Over the next thirty years a number of them, including two or three who served the Schlagintweits, would carry out important exploration of Inner Asia for the British.<sup>23</sup> Their presence did add a translation step. Balti, the local tongue, is a Tibetan language. The Kashmiris presumably had, as their first tongue, Hindi and/or Dogri, both Indo-European languages. Some, like literate Baltis, may have had Persian as a second language. Exchanges upon which the European explorers depended, therefore, may not have been in the first language of anyone present!

<sup>21</sup> Godwin-Austen, 32

<sup>22</sup> Royal Geographical Society, 1938

<sup>23</sup> Waller

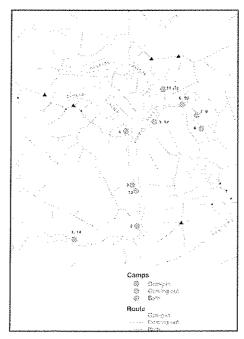


Figure 2: Schlagintweit's itinerary of 1856 to the Panmah Glacier and the Mustagh Pass (cf Table 3)

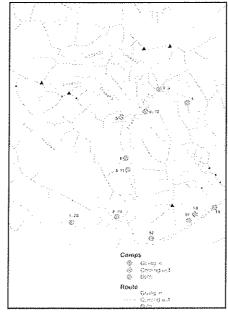
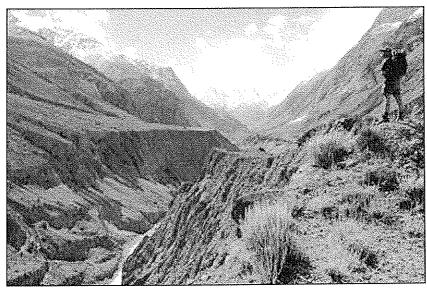


Figure 3: Godwin-Austen's itinerary of 1861 to the Panmah Glacier and approaches to the Mustagh Pass (cf Table 4)



**Figure 4a:** The Dumordo valley looking down from Tsok to the mountains beyond the Biaho. Schlagintweit and Godwin-Austen followed this valley in both directions. (Hewitt, September 1996)

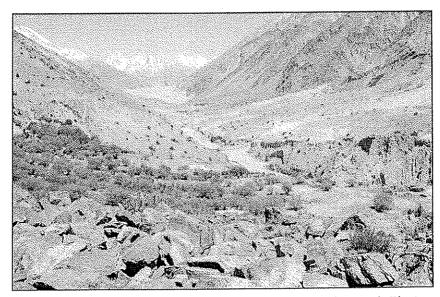


Figure 4b: The view upwards from Tsok to the terminus of Panmah Glacier and Choktoi Peaks. The valley broudens, but the flanks are equally steep with no exits to right or left. (Hewitt, July, 1999)

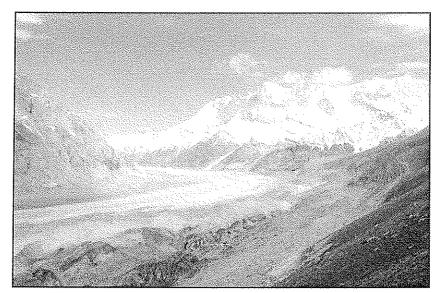


Figure 5: "...an ice-bound region..." The Nobonde Sobande arm of Panmah Glacier and Skamri Peak. A view from near Godwin-Austen's "Skeenmung" camp. When he was there the glacier was some 100m thicker. (Hewitt, July, 2005)

More remarkable, perhaps, is how recent field work, with only one language step necessary, Balti to English, revealed that place names current 160 years ago are still in use by the shepherds, or readily recognized. Men from the upper Braldu villages encountered in the Dumordo valley, or who accompanied us from Askole to the Panmah Glacier, helped sort out various uncertainties of place and route. The details and translations in Tables 3 and 4 come from them. Take, for example, the camps or stops called 'Gore Brangsa', 'Dera Gore Bransa' or, in current orthography, Khore versus Khoro Bangsa (Figure 6). It is easy to confuse the first two, and some of the explorers' notes or transcriptions of them did indeed do so. The shepherds pointed out how the names refer to distinctive shapes of buildings or features at these two temporary summer settlements, and which one would have applied according to the routes and time taken. Again, Bochli Chiangma had been placed above both 'Bransas', whereas it lies between them. 'Chiangma Bianga' seems likely to have referred to Boehli Chiangma as well.<sup>24</sup> In all, this speaks to an extraordinary continuity of knowledge in today's world.

<sup>&</sup>lt;sup>24</sup> Kick, 49, 69 'Pharreot' is another interesting name. It was identified by Schlagintweit as the last cast flank valley and tributary glacier of the Nobande Sobonde, just before it joins the Choktoi branch. The reports and maps of the 1929 Italian expedition refer to it as 'Feriole'. Local shepherds said they do not know this name, but felt it was actually the Balti word for 'on the other side'. Was there a misunderstanding when the area was being discussed at the Shurshing camp, before crossing the Panmah?

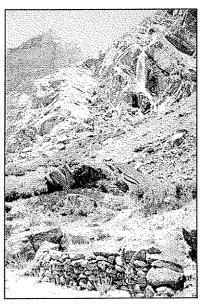


Figure 6: Khore Brangsa ("Dera Gore Bransa") with sheep pens, shelters for shepherds under the boulder in the middle ground, and the waterfall providing sweet water. (Hewitt, July, 2005)

Today's trekkers and mountaineers, following the same routes and equally dependent upon local guides, seem to see the place names as defined by the explorers: at best, defining moments when the 'discoveries' confirmed or validated indigenous knowledge for 'the world'. The journeys of interest involve the earliest so-called contact zones of different cultures. One might see them in terms of 'transculturation', exchanges of mutually exotic knowledge.25 In postcolonial literatures, the emphasis is on the unequal exchange between colonial power and colonised people. In the present case, names were locally derived but with no accompanying or intervening narratives from the other culture. It also seems inappropriate to speak of 'local' or only 'indigenous' knowledge. Even along these foot trails and places without permanent habitation, so much of what was known and interpreted by names derived from centuries of preexisting activities and diverse cultures; from itinerant merchants and migrants, pilgrims and holy men. Resident shepherds and hunters not only helped develop and sustain that knowledge; their ancestors had been traveling along these ways to surrounding lands for a thousand years or more.

Another imperial issue intervenes to ignore or suppress such knowledge; the obsession with frontiers and search for supposedly 'natural' boundaries. Mountain passes were seen as places to breach or seal boundaries. There was great pressure in the nineteenth and early twentieth centuries and even now, to

<sup>25</sup> Pratt (1992) 6

reconfigure the high Karakoram as a natural barrier.<sup>26</sup> This combination of strategic goals and a deterministic view of nature sought to define the "Inner Asian Frontiers"<sup>27</sup> as remote, isolated and pre-destined. The constant communication, exchange and struggle with surrounding lands evident in the reports of Schlagintweit and Godwin-Austen, was ignored or shifted into a lost past.

An added distraction is the way the exploration of the Himalaya and other high mountains seemed to merge with polar exploration as the final achievements of Western discovery. There was an added theme of both reaching out to or beyond the limits of the habitable Earth. It has helped support a certain desire to believe that these lands were not only unknown before European exploration, but 'empty'.

#### PRACTICES BEHIND THE LANDSCAPE IMAGE

Mary Louise Pratt sees descriptions from high vantage points as literal and metaphorical "peak moments" in imperial travel writing. <sup>28</sup> For her, the emphasis is on how they provided a *commanding* overview. Godwin-Austen certainly provided some typical examples. This is one from "18,342 feet" above Skinmang ("Skeenmung") Camp (Fig. 7):

"...It was a lovely day, every mountain around stood clearly out in view...The view up the Nobundi Sobundi<sup>29</sup> glacier, to the great plateau of ice whence it takes its rise, was grand in the extreme, as also downwards along its whole surface to Chongulter... the pass over the Mustakh was in view at the end of another lateral glacier of vast proportions. The great peaks of Trans-Indus, 4 and 11, were visible beyond a level plain of snow...a vast sheet of ice with only a few sharp points of rock sticking out here and there. Snowy ridges stretched away towards Yarkund..." <sup>230</sup>

Here are all the hallmarks of the "promontory view" that Pratt associates with an "imperial vision". For Godwin-Austen, these viewpoints also established another, at that time novel, surveyor's vision of the landscape. He could resolve the maze of paths through which local guides had taken him in a map tied to "Trans-Indus" peaks K1, K2, K3, etc. Their positions had already been fixed by the Great Trigonometrical Survey. It would be a crucial step in appropriating the landscape and regional space, removing it from local values and control. The emerging language of glacier studies is another step in the same direction, removing the landscape from its cultural contexts, and placing it in a modernised, global one. Yet, the geographical names and choice of viewpoint

<sup>26</sup> Holdich.

<sup>&</sup>lt;sup>27</sup> Owen Lattimore wrote a widely-acclaimed book on this from the perspective of China, and stressed the artificiality by remarking that "...an imperial boundary...not only serves to keep the outsiders from getting in but to prevent the insiders from getting out..." p.230.

<sup>28</sup> Pratt, chapter 9

<sup>&</sup>lt;sup>29</sup> See Table 4 for revised spellings of geographical names used by G-A.

<sup>30</sup> p. 34. There is a field sketch and water colour of the view from this station in the library of the Royal Geographical Society in London.

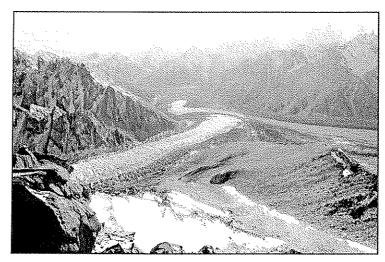


Figure 7: Looking south from Godwin-Austen's survey station above Skinmang camp. The junction of the Chiring and Nobande Sobande branches of Panmah Glacier are in the middle ground, the Latok peaks and "The Ogre" (Baintha Brakk) in the top right corner The view shows the surge of the Chiring Glacier coming from the West Mustagh Pass, 16 km to the east/left. The 'Meadan' valley enters Chiring from the left middle ground, but the ice did not reach it in 1998. (Hewitt, August 1998)

signal how, at the time, this required a 'transcultural' moment, rather than a purely Western or imperial one.

There are few such views in Schlagintweit's Mustagh legacy (Figure 8). Earlier, however, the brothers had climbed several Himalayan peaks. Their watercolours and descriptions from the summits could be seen as 'promontory views'. They also were among the first to publish panoramas from survey stations to the south, identifying the Trans-Himalayan peaks Godwin-Austen sought out.<sup>31</sup>

The two left a rather different sense of the Mustagh route, partly as a result of the methods of way-finding and surveying they employed. In this journey Schlagintweit favoured the 'route method'—based on compass directions, distances by counting paces, and astronomical fixes at key points. Perhaps it was because he was, indeed, the first on an entirely new route for Europeans.

Godwin-Austen was there to fill in map detail with the plane table. As noted, his main goal was to find survey stations located in relation to the peaks already fixed from afar. A constant preoccupation was identifying these peaks from the valley, and how rare and often frustrating were opportunities to reach suitable vantage points. The places where he could set up his plane table and drawing board provided some of his most elaborate and memorable descrip-

<sup>31</sup> Schlagintweit, 1861

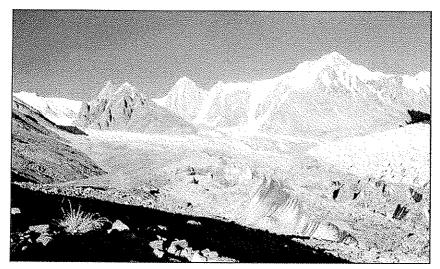


Figure 8: A recent photograph of the Tsoka ('Tsokar') Glacier and its junction with the Chiring. The view is the same as Adolph Schlagintweit's 1856 panoramic water colour #638 whose location was previously not known. The summer camp where Schlagintweit and Godwin-Austen stayed, is in the left middle ground; the route to the Mustagh Pass over the ice at the right side.

tions.<sup>32</sup> His survey methods and interest in glaciers had their parallels in Schlagintweit's work, but also some surprising differences.

#### PASS CLOSURES AND FEMALE GLACIERS

There are intriguing differences between the water colours of Schlagintweit and Godwin-Austen representing the glaciers around Skinmang.<sup>33</sup> The former shows Chiring ice filling most of the valley at the Nobande Sobonde junction. The latter has Chiring compressed to a narrow thread by ice by the 'Maedan' tributary. Godwin-Austen's guides told him great changes were taking place in the ice between 'Shingchukpi' and 'Skeenmung'. Also, in 1887, Younghusband was obliged to cross by the East Mustagh Pass. Later, he followed the route of the two earlier explorers, but found the Chiring a mass of ice blocks and crevasses blocking his way to Skinmang.<sup>34</sup>

A perennial theme in the European literature is the closure or inaccessibility of the mountain passes. 35 Everything points to greater use before the nineteenth

<sup>32</sup> I found the two sites for which he made very useful topographical water colours held in the Royal Geographical Society's Library; one of the Panmah terminus and the other from the "Skeenmung" Peak of the quotation. At the former there was not only a cairn but slabs of rock laid out, evidently to rest his drawing board on—an exploration archaeological site.

<sup>33</sup> Schlagintweit #640 and the one from Godwin-Austen in the RGS library

<sup>34</sup> Younghusband

<sup>38</sup> A good summary is found in Shipton, 1938 chapter five.

century. Shipton thought it was due to the decay of the glaciers, Godwin-Austen and Younghusband to their expansion. However, what they had observed were glacier processes only indirectly related to climate change—surging glaciers (Figure 7). These suddenly accelerate to speeds ten or more times faster than normal. The ice becomes severely crevassed and over-rides the margins. The terminus can advance many kilometres in a few weeks or months. Then they become quiescent again for decades or centuries.

The Karakoram is one of the few regions with numerous surging glaciers. Their role in closures of the Mustagh Passes route was (re)discovered when the Chiring surged in 1994, and the Maedan in 2002. Schlagintweit arrived before, and Godwin-Austen just after, a previous Maedan surge. Younghusband saw the last surge of the Chiring, Several tributaries of the Sarpo Laggo Glacier on the Chinese side of the pass also surge. They influence whether travellers follow the west or east side of that glacier and hence, whether the East or West Mustagh Passes are preferred.

Once more, the shepherds were well aware of all this, but in their own language. In 2005 a man from Askole referred to one of the glaciers that had just surged as a 'girl' or 'woman'-glacier. Baltis sensibly recognise that glaciers may be male and female. They exploit the fact when they 'seed' new ones. Surging glaciers are, apparently, females rushing down in search of mates! Moreover, the shepherds then identified as 'maidens' several other glaciers that I knew had surged, and some not known previously. It is evident that the 'Maedan', which has no maedans, grassy meadows, along it, was a mistranslation or decision to change 'maiden' glacier! Transculturation can help or hinder even quite factual communication!

Glacier change is certainly not the only or even a main factor in pass use. Surges affect movement in particular years, but the history of use is surely related much more to political, social and economic changes in surrounding lands. That certainly became the main factor after these two early journeys (see below).

#### ICE AGE REVERIES

The journeys also occurred at a time of intense European debates about glaciers. The idea of an 'Ice Age' was still somewhat controversial. Godwin-Austen's father, a geologist, had been of the 'diluvialist' persuasion. They explained the great deposits scattered across Northern Europe and in the Upper Indus Basin, as due to marine inundation, or Noah's flood. By the time he read his son's paper at the Royal Geographical Society, the father seems to have become a convert to the glacial hypothesis. The son's enormous support for it seems to have come from his impression of glacial activity in the Karakoram. His climbs to high viewpoints convinced him that the valleys had once been

<sup>36</sup> Hewitt, 2007. Shingchabi and the East Drenmang Glaciers also surged in 2004-5.

filled with ice, and he felt he had found evidence for it in deposits of boulders along the valley floors.

Schlagintweit had been one of the pioneers of glaciology and the glacial legacy in the European Alps, long before visiting the Karakoram. He and his brother Hermann wrote research papers and monographs about glacial activity. Wilhelm Kick refers to them as 'the first glaciologists' in High Asia.37 Yet, while Adolph made many observations about the glaciers of the Karakoram, Nanga Parbat and Eastern Himalayas, he was not convinced of the same great Ice Age expansion there as in Europe. Two reasons seem to explain this, First, there was his route method, since he tried to travel as far as possible along unsurveyed valleys. He did not climb high up the valley sides where Godwin-Austen encountered so much evidence of former glacial sculpture and deposits. Secondly, Alpine experience made Adolph well aware of the difference between glacial moraines and rock slide debris. What Godwin-Austen and many since took as evidence of former glacier positions along valley floors, Schlagintweit accepted as catastrophic landslide ("Bergsturz") deposits.38 It is one of those puzzling cases where a correct view of Earth history—there were indeed huge Ice Age expansions of the glaciers in the Karakoram-has been partly based on incorrect evidence. However, what is of greater concern is how these interests in Quaternary history further reinforced a Eurocentric tendency to detach natural processes from particular settings and their human relations.

#### DISCOVERIES LOST IN TRANSLATION

The legacies of these two explorers are quite different in other respects. Schlagintweit has almost no meaningful role in the English-language literature. Apart from some citations in Gazetteers for the region, mention is almost always made of what he did *not* do. His death, the year following his journey to the Mustagh Pass is surely a factor.

Adolph was captured and executed as a spy near Yarkand, while trying to return home via Chinese Turkestan and Russia. It was surely one of the greatest tragedies for Asian exploration as well as his family. That he did not survive to complete the work is sad in itself, and a considerable loss to science in High Asia. The extent and detail of his observations, the field notes, drawings and collections that survive in archives and museums—including a surprising amount from those few weeks in the central Karakoram—create enough of a sense of tragedy. All the more dismaying is how his contributions were misrepresented or ignored in the language that has dominated modern knowledge of the region, English.

Godwin-Austen would remain a key figure. The essay on glaciers in the Geographical Journal became a classic of the Karakoram explorer's literature. Yet, the kind of person who comes through in that essay, the enthusiasm for

<sup>37</sup> Kick, 1960

<sup>38</sup> Hewitt, 1999

the place, disappears from his later writing. He became very private. As the 'grey eminence' of Himalayan exploration he comes across as overbearing in public, perhaps from shyness. There is no sign of the enthusiasm of 1861 and he sounds like the typical colonial 'sahib' when, in 1893, he said of Karakoram names:

"... Natives are not always to be depended upon, not even when the topographical features are within the range of vision, and unless verified from other and independent information names thus obtained cannot be trusted and placed on record..." 39

He does not say what "independent information" he or others could have found along the Mustagh Pass trail.

In other respects the fate of both our explorers' work carries a similar message. They continued the all-purpose interest in natural and human history that had served von Humboldt or Darwin so well. What the Schlagintweits did was in every way comparable, in some ways superior, to von Humboldt, benefiting from better instruments and the improvements in scientific knowledge. Unfortunately, they just missed this particular boat. It was already under attack from an emerging positivist, specialised science, notably in Britain. However, dramatic political and social changes in India and Europe would have a greater impact on their legacies.

#### THE 'GREAT DIVIDE'

Pivotal changes in how these explorers and their journeys were remembered, and much more, came from the 'Great Rebellion' of 1858, also called the "War of Independence" and "The Mutiny". Pannikar described the consequences as:

"...the Great Divide in modern Indian history, as the policy, practice and ideas of the government that followed differed fundamentally for the government it displaced..." <sup>40</sup>

Blamed for much that was already going on, the Rebellion did precipitate great changes in British administration and social life in India. Within a short space of time a direct colonial administration would replace the East India Company, the Schlagintweits' sponsor. There were also radical changes in the cultural conditions in Europe that had favoured their work.

Following the Rebellion, emergency powers and military control applied to most of the sub-continent. It helped set the stage for "Great Game" machinations in Inner Asia.<sup>41</sup> From the 1860s, hitherto little known parts of the Karakoram were being discussed in Westminster and St. Petersburg as well as Bombay. It meant that for several decades the story of discoveries of the region would, according to John Keay:

<sup>39</sup> Godwin-Austen, 1893

<sup>40</sup> Pannikar, 206

<sup>41</sup> Alder, 1963.

".. contain only one traveler who claimed to be a conventional explorer and his credential are open to question... missionary and commercial interests play no part..."42

Karakoram exploration and discovery would become militarised and enveloped in the language and imagery of the 'last frontiers'. As far as geography and landscape are concerned, the foci became those of the surveyors and geostrategy. In the former, a topographical mindset came to prevail; for the latter, a particular interest in boundaries, passes and potential invasion routes.

The mind set is illustrated by a joint study written by the superintendents of the Trigonometrical and the Geological Surveys of India. They begin by saying:

"Our subject has fallen naturally into four parts...: PART I. The high peaks of Asia PART II. The principal mountain ranges of Asia PART III. The rivers of the Himalayas and Tibet PART IV. The geology of the Himalaya" <sup>13</sup>

The first three parts are simply lists of named peaks, rivers etc., with elevations, coordinates and other cartographic measures. Hayden's geology is mostly an inventory of the rock types. Now, these data are an integral part of the geographers' trade. Making them the substance of understanding had a baleful effect upon ideas about, and attitudes towards, the regions and landscapes of the "Himalayan Mountains and Tibet". Nor had such information been the only or even the main concern of geographical discoveries on which the book is based.

Early explorers, before and including the Schlagintweits and Godwin-Austen, had paid attention to all aspects of natural history and to the activities, settlements and land uses of the mountain peoples they met. They had what today would be called a multi-disciplinary and ecological mind set. However, the narrowly topographical view became more palatable to the colonial administration. It helped promote images that ignored the people of the Karakoram; expunged its cultural and historical space, and replaced it with 'empty lands' and a 'mountain fortress'.

A refreshing change in attitudes, particularly towards the people of the region, appears in some travel and mountaineering works from the 1930s, but the focus remained on high adventure, on glacier and mountain areas seen as 'blanks on the map'. He is necent decades scholars have returned to an interest in the peoples, cultures and histories of the Karakoram. Yet, as noted, these can be as strangely absent from official pronouncements as from the tourist imagery.

<sup>42</sup> Keay, 6; Knight

<sup>48</sup> Burrard and Hayden

<sup>41</sup> Shipton, Dyhrenfurth

<sup>45</sup> Dani, Stellrecht, Lohr, Allen, Butz, MacDonald

#### ALTERNATIVE HISTORIES AND LANDSCAPES

Generally, the two explorers' work can support the stereotypical notions quoted at the beginning, but can as easily be used against them! Yes, they represented the mountains as exceptional in ruggedness, the daunting scale of the glaciers, their journeys as often difficult; but 'untrodden'? 'chaotic'? 'empty'? Not really. Their descriptions do not suggest the land is uninhabited or unused, least of all a mountain fastness isolated from the rest of Asia.

They seemed rather less aware of having arrived at a time when the people of the valleys were suffering from more than a century of wars, occupation, exploitation, and disruption of past economic arrangements including trade. The problems were aggravated by the glacier advances of the Little Ice Age. Terrible epidemics had swept through the valleys in the nineteenth century, decimating village populations. Many high pastures which had been exploited and important in earlier times, the timber and hunting resources along the glaciers, were being abandoned. In other parts of the Karakoram, whole villages and valleys were emptied of people. 46 Yet, nowhere the explorers went was unknown or 'undesignated' by local people. The journeys were part of the European search for people to trade with or enslave, for routes to legendary riches or cultures, or intelligence gathering to guide political and military control of existing populations and activities. This did not prevent recognition of their dependence on local guides and villagers, and a genuine fascination with what they are finding—despite some frustration with the problems of translation in both directions!

The original materials from the two early journeys support visions of the Karakoram other than the stereotypes selectively recalled later. Their work was surely 'Eurocentric'. It constructed a view reflecting the expedition/survey context, the preoccupations of European science and trade interests but differing from those cited in Table 1. They belonged to a different era, but one about to come to an abrupt and irreversible end.

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<sup>46</sup> Kreutzmann

#### BIBLIOGRAPHY

- Alder, Garry J. 1963. British India's Northern Frontier 1865—95: A Study in Imperial Policy. London: Longmans.
- Alder, Garry I. 1985. Beyond Bokhara: The Life of William Moorcroft, Asian Explorer and Pioneer Veterinary Surgeon 1767–1825. London: Century.
- Allen, Nigel, J.R. 1995. Karakorum Himalaya: Sourcebook for a Protected Area. IUCN The World Conservation Union, Pakistan.
- Aosta, Aimone di Savoia. 1936. La Spedizione Geografica Italiana al Karakoram, 1929. Milano, Roma: S.A. Arti Grafiche Bertarelli.
- Berger, Peter L. and Luckmann, Thomas. 1966. The Social Construction of Reality: a Treatise in the Sociology of Knowledge. New York: Doubleday.
- Bonavia, Judy. 1988. Collins Illustrated Guide to the Silk Route. London: Collins.
- Burrard, S.G. and Haydon, H.H. 1907. A Sketch of the Geography and Geology of the Himalayan Mountains and Tibet. Calcutta.
- Butz, David 1995. "Legitimating porter regulation in an indigenous mountain community in northern Pakistan." *Environment and Planning* 13:381–414
- Butz, David. 1996. "Sustaining indigenous communities: symbolic and instrumental dimensions of pastoral resource use in Shimshal, northern Pakistan." Canadian Geographer 40: 36–53.
- Conway, William Martin. 1894. Climbing and Exploration in the Karakoram-Himalaya. 3 vols. New York: Appleton.
- Dainelli, Giotto. 1924–35. Relazioni Scientifiche della Spedizione Italiana De Filippi nell'Himalaia. Caracorum e Turchestan Chinese (1913–1914). Sories II. 10 vols. Bologna: Zanichelli.
- Dainelli, Giotto. 1959. Esploratori e Alpinisti nel Caracorum. Turin: Unione Tipografico-editrice Torinese.
- Dani, A. Hasan. 1989. History of the Northern Areas of Pakistan. National Institute of Cultural and Historical Research. Islamabad.
- Dani, Anis A. 1986. "Annexation, Alienation and Underdevelopment of the Watershed Community in the Hindu Kush-Himalayan Watersheds." In Watershed Management: An Interdisciplinary Approach, edited by K. William Easter, John A. Dixon and Maynard M. Hufschmidt. Boulder, CO: Westview.
- Drew, Frederic. 1875. *The Jammoo and Kashmir Territories. A Geographical Account.*London: Edward Stanford: reprinted (1980) Karachi: Indus Publications.
- Dyhrenfurth, G.O. 1939. Baltoro: ein Himalaya-Buch. Basel: Benno Schwabe.
- Godwin-Austen, Henry Haversham. 1864. "On the Glaciers of the Mustagh Range (Trans-Indus)." *Proceedings of the Royal Geographical Society* 34:19–56.
- Godwin-Austen, Henry Haversham. 1893. "The nomenclature of the Karakoram peaks." Geographical Journal, Correspondence, 1:177.
- Government of Jammu and Kashmir, 1887, "Status Survey Report of Notified and Proposed National Parks, Sanctuaries and Reserves in Ladakh," Srinagar: Department of Wildlife Protection, 30.
- Hedin, Sven. 1917–22. Southern Tibet: Discoveries in Former Times Compared with My Own Researches in 1906–1908. Vol. 7, History and Exploration in the Karakoram Mountains. Stockholm: Lithographic Institute, Swedish Army.
- Hewitt, Kenneth. 1989. "European Science in High Asia: Geomorphology in the Karakoram Himalaya to 1939." In *History of Geomorphology: Hutton to Hack*, edited by K.J. Tinkler, 165–203. Boston: Unwin Hyman.

- Hewitt, Kenneth. 1999. "Quaternary moraines vs. catastrophic rock avalanches in the Karakoram Himalaya, Northern Pakistan." *Quaternary Research*, 51(3): 220–237.
- Hewitt, Kenneth. 2007. "Tributary glacier surges: an exceptional concentration at the Panmah Glacier, Karakoram Himalaya. Inner Asia." *Journal of Glaciology*, 53, 181–88.
- Hindley, G. 1970. "The Last Frontiers PART TWO: The Roof of the World." Encyclopedia of Discovery and Exploration. New York: Doubleday.
- Holdich, Thomas Hungerford. 1916. Political Frontiers and Boundary-Making. London: Macmillan.
- Intelligence Branch, Calcutta. 1890. Gazetteer of Kashmir and Ladakh: Together with Routes in the Territories of the Maharája of Jamú and Kashmir. Calcutta: Government Printing Office; reprinted (1991) Gang-e-Meel Publications.
- International Union for the Conservation of Nature (IUCN). 1992. "Towards a World Heritage Site in the Central Karakorum, Baltistan." Switzerland: Gland.
- Keay, J. 1977. When Men and Mountains Meet: The Explorers of the Western Himalayas, 1820–75. London: Century.
- Keay, John. 1990. The Gilgit Game: the Explorers of the Western Himalayas, 1865–1895. New York: Oxford.
- Imran Khan. 1990. Indus Journey: a personal view of Pakistan. London: Chatto and Windus.
- Kick, Wilhelm. 1960. "The First Glaciologists in Central Asia." Journal of Glaciology 3:687–689.
- Kick, Wilhelm. 1982. "Alexander von Humboldt und die Brueder Schlagintweit." In *Der Weg zum Dach der Welt*, edited by C.C. Mueller and W. Raunig, 75–77. Innsbruck: Penguin.
- Kick, Wilhelm. 1993. Adolph Schlagintweits Karakorum: Forschungsreise 1856. Munich: Deutscher Alpenverein.
- Knight, E.F. 1980. Where Three Empires Meet: A Narrative of Recent Travel in Kashmir, Western Tibet, Gilgit and the Adjoining Countries. 1893. Reprinted Lahore: Ferozesons.
- Kreutzmann, Hermann. 1994 "Habitat conditions and settlement processes in the Hindukush-Karakorum." *Petermanns Geographische Mitteilungen* 138, 337–356.
- Lattimore, Owen. 1940. Inner Asian Frontiers of China. New York: American Geographical Society.
- Lohr, Johannes, H. 1997. "History as Social Practice: an Example from Northern Pakistan." In *Perspectives on History and Change in the Karakorum, Hindukush.* and Himalaya, edited by I. Stellrecht and M. Winiger. Koln: Rüdiger Köppe Verlag.
- Longstaff, T.G. 1938. Foreward i–ii. In Shipton, Eric E. 1938. Blank on a Map. London: Hodder and Stoughton.
- MacDonald, Kenneth I. 2006. "Memories of Tibet: Transnationalism, Transculturation and the Production of Cultural Identity in Northern Pakistan." *India Review*, 5/2, 190–219.
- Mason, Kenneth. 1954. Abode of Snow. London: Dalton.
- Middleton, Dorothy. 1984. "Karakoram History: Early Exploration." In *The International Karakoram Project, Vol. 1*, edited by K.J. Miller, 17–31. Cambridge: Cambridge University Press.
- Miller, Keith J. (editor). 1984. *International Karakoram Project*. 2 vols. Cambridge: Cambridge University Press.

- Murphy, Dervla. 1977. Where the Indus is Young: walking in Baltistan. London: Jonathan Murray.
- Pratt, M.L. 1992. Imperial Eyes: Travel Writing and Transculturation. London: Routledge.
- Robertson, George. 1898. Chitral, the History of a Minor Siege. London: Methuen.
- Royal Geographical Society. 1938. "Karakoram Conference Report." *Geographical Journal* 91:129–152.
- Schlagintweit, Adolph, et al. 1857. "Report on the Progress of the Magnetic Survey of Indian and Researches Connected with it from May to November 1856, in Himalaya Mountains and Western Tibet." 9 Reports. Dehra Dun: Survey of India.
- Schlagintweit. Hermann A. and Robert. 1861–66. Results of a Scientific Mission to India and High Asia Undertaken Between the Years 1854 and 1858. Etc. 4 vols. London: Truebner.
- Schlagintweit, Hermann A. and Robert. 1861. Scientific Mission to India and High Asia. Vol. 1. Leipzig: F.A. Brockhaus.
- Schlagintweit- Sakunlunski, Hermann von. 1869–80. Reisen in Indien und Hochasien. 4 vols. Jena: Constable.
- Schlagintweit, Hermann. 1875. Die Paesse über die Kammlinien des Karakorum und des Kuenluen in Balti, in Ladak und im Oestlichen Turkistan: Nach Unseren Beobachtungen von 1865 und 1857 und den Neueren Expeditionen. Munich: Verlag der Koeniglichen Bayerischen Akademie der Wissenschaft.
- Schlagintweit, Robert. 1866. "Comparative Hypsometrical and Physical Tableau of High Asia, the Andes and the Alps." *Journal of the Asiatic Society of Bengal* Vol. 35, Pt. 2, 65.
- Schlagintweit, S. 1982. "Die Brueder Schlagintweit: In Abriss ihres Lebens." In Der Weg zum Dach der Welt, edited by C.C. Mueller and W. Raunig, 11–13. Innsbruck: Penguin.
- Schomberg, Reginald, C.F. 1935. Between the Oxus and the Indus. London: Martin Hopkinson; reprinted (2000) Lahore: Ali Kamran Publishers.
- Shipton, Eric E. 1938. Blank on a Map. London: Hodder and Stoughton.
- Shipton, Eric E. 1940. "Karakorum, 1939." Geographical Journal 95:409-427.
- Shipton, Eric E. 1943. Upon that Mountain, with a foreword by Geoffrey Winthrop Young. London: Hodder & Stoughton.
- Stellrecht, I. (ed.) 1998. Karakorum-Hindukush-Himalaya: Dynamics of Change. Culture Area Karakorum Scientific Studies. 4 volumes. Koln: Rüdiger Köppe Verlag.
- Vigne, G.T. 1844. Travels in Kashmir, Ladak, Iskardo, the Countries Adjoining the Mountain-Course of the Inclus and the Himalaya, North of the Punjab. 2 vols. Reprinted (1987) Karachi: Indus.
- Visser, Philips C. 1926. Zwischen Karakorum und Hindukush, Eine Reise nach dem unbekannten Herzen Asiens. Leipzig: Brockhaus.
- Visser-Hooft, Ph.C. and J. Visser-Hooft. 1935–1938. Karakorum: Wissenschaftliche ergebnisse der Niederlandischen Expeditionen den Karakorum und die Angrenzenden Gebiete in den Jahren 1922, 1925, 1929–30, und 1935. Leiden: E.J. Brill.
- Waller, Derek. 1990. *The Pundits: British Exploration of Tibet and Central Asia.* Lexington: University Press of Kentucky.
- Younghusband, Francis E. 1904. The Heart of a Continent: A Narrative of Travels in Manchuria, Across the Gobi Desert. Through the Himalayas, and Chitral, 1884–1894. London: John Murray; reprinted (1994) New Delhi: Book Faith.