

or the thrust of the Spear : with both of these weapons they are dextrous, and have courage to use them ; I saw no fire arms among them, which appears the Ships seldom trade with the natives, and which, for want of a regular supply of ammunition they do not value, the case will now be otherwise.

My surveys for fifteen years on the east side of the Mountains forced on my attention, the deepest channel,¹ and the most navigable part of the Rivers, which I was frequently ascending and descending ; all the great Streams northward of the Missisourie take their rise in the Mountains and flow northeastward, either into Hudsons Bay, or the Artic Sea : these are the Saskatchewan and it's great branches into the former ; the Athabasca and Peace River with their tributaries into the latter sea. Besides the above many Rivers descend to Hudson's Bay, from the interior numerous Lakes, all their courses are north of east ; in all these numerous Rivers, the best channel and the best navigable water is constantly on the left side, or as it may be truly called, the north side of the River ;² it is along this side the Canoes and Boats always ascend, and very rarely on the right or south side, and this only for a short distance ; even this is caused by the above

¹ Until about 1880 the ships' channel from the Columbia Bar entered Baker's Bay, and then followed the north bank up the river, very seldom favouring the south bank. The ships of the fur-traders came to anchor opposite Astoria, four miles away, and all goods were landed in small boats. It was this arrangement that led to the drowning of Alexander Henry and Donald McTavish while crossing the river to the *Isaac Todd* on May 22, 1814. The introduction of irrigation in cultivation of the land and the cutting down of the timber has caused so much silt to enter the river that bars and islands have been formed, and the ships' channel has been changed to the south bank from Gray's Bay to the Cape. [T. C. E.]

² The sun shines more directly and with greater force on the northern sides of the valleys ; consequently these sides are dry, and the dry or soft rock breaks down more rapidly. The southern sides of the valleys, being less directly influenced by the rays of the sun, are moister, and more thickly covered with vegetation ; consequently neither the water falling as rain, nor that flowing in the streams, cuts down the southern bank as quickly as it does the northern one.