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the back wall of the valley. And I suspect that, well, they were probably where the stones were piled out of the way. But it makes me think that this area was actually cleared in here, at one time. Since they went to the trouble of moving stones from the boulder field out towards the edges of the fields, it would make you think that they at least tried to cut the hay, if nothing else. I don't know whether they ev? er plowed the ground. But I think this must have been used for crop land of some sort. But it's only by luck that you can find these walls as you're wandering through the back sides of the valley, off the main track. They're usually no higher than 18 inches or so now. And the trees have obvi? ously grown right up through them. I suppose it means that the forest must be at least 70 years old. I'm not sure when the valley was settled. In the big wide valleys like the Clyburn Brook valley, what we find is that the river has cut down through its own depos? its time and time again. And you get river terraces at different heights, usually separated by about 6 feet or so, but some? times by less. They are really different levels of erosion, as the river has gradu? ally cut down through the sediment pile that it runs on. And the reason for them is that the sea level is not constant itself. And the river is constantly eroding down to adjust to the present altitude of sea level. Sea level of the ocean goes up and down. As sea level drops, then the river erodes back up, and forms a new.... (We're so far from the sea. And yet this river is responding to what's going on at the ocean?) Yes, it is indeed. Every river is responding to its relative base level: the level of whatever standing body of water there is downstream. If the only body of water that's sitting level downstream is the sea, then it's going to respond to the level of the sea. The aver? age sea level itself. As the sea rises and falls over long peri? ods of time--not the tide. Sea level, for example, during the ice age, was some 180 metres lower than it is today. So that land was exposed away out to the edge of the continental shelf. And at that time the rivers cut down much deeper than they do today. When the sea rose as the ice melted, then the rivers deposited sediment in the valleys and filled the valleys up. But then the land continued to rebound. So then the land rose with respect to the sea. Which means sea level effectively dropped with respect to the land. And therefore the rivers started cutting back down through their own deposits again. So we've got this very complex up-anddown situation going on. And the rivers are still readjusting to the present level of the sea. Sea lev? el, while we think of it as something very uniform all over the world, on a geologi? cal scale is not uni? form at all. (To be sure that I un? derstand: You are saying that you can be 10 miles from the ocean, and that the river, 10 miles back from the ocean, is re? sponding to the level 233 Esplanade • 562-7646 An Historic Setting Overlooking the Harbour The Face of Sydney is Changing... The City of Sydney con? tinues to grow' and change v'ith a commitment to the challenges of the future and a recognition of our responsibility to the past. From Centre 200 to the "Whitney Pier Historical Society, from excellent shopping to the heritage buildings of the North End and our Waterfront • first-rate restaurants and motels make Sydney your base for '//of Cape Breton. Within easy reach of the Miners' Mu? seum,



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