

Competitive Product Survey

1 Introduction

There are currently many products designed to help climbers find and locate routes. The two most commonly used products in the field are paper guidebooks, and mobile applications. Examples of both products were investigated in this comparison.

2 Guide Books

Guidebooks are still likely the most widely used product for climbing route selection. I surveyed four local guidebooks to see what common aspects they shared, and if there were any specific differences. Three of the books (Bow Valley Rock [1], Bow Valley Sport[2], and Sport Climbs in the Canadian Rockies [3]) were more general and contained information about multiple crags located around Canmore, Alberta. The fourth book (A climber's guide to Kid Goat Crag [4]) was shorter, and focused on just a single crag.

2.1 Area Selection

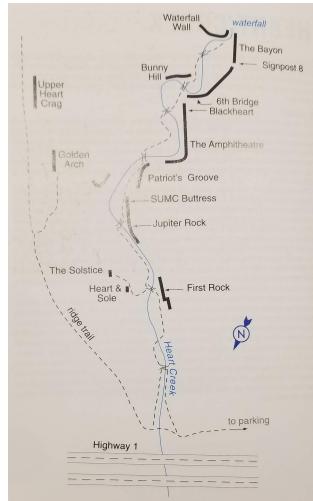
The three general books all separated routes first by the crag name. They all contained an introduction section containing general information about the region (the Bow valley), a table of contents separated by area name, as well as a map of the region. Sport Climbs also contains a table that gives climbers a quick overview of the route grade distribution (fig 1).

area	page	number of routes at each grade								total
		2-6	7-8	9	10	11	12	13	14	
Acalyphas	19			3	6	26	24	11		84
Banff Mtn.	437	5	10	9	32	31	9			94
Bottman	346			18	39	34	9			96
Black Feather	216	2	2	17	9	7				37
Canyon Creek	252		1	32	40	40	5			129
Cougar Canyon	266	1	10	28	140	75	13	7	5	290
Echo Canyon	384		1	2	16	69	73	39	4	287
Ghost River	430		6	4	27	6	1			77
Grass Lakes	87	5	4	8	34	20	22	1		94
Grotto Canyon	360	10	27	28	90	57	32	6		244
Heart Creek	29	9	15	21	86	24	95	7		178
Kid / Nanny Goat	412	10	8	19	40	6				83
Lake Louise	147	18	18	24	62	55	31	6	1	216
Moose Mtn.	491		1	15	51	28				95
Peregrine	453	2	12	5	17	3				39
Prairie Creek	503		1	4	13	25	17	5		63
Stoneworks	258			4	18	15	6			41
Sunshine	128	9	16	10	26	14				87
Tunnel Mtn.	164	2	4	46	14					67
Wapockit	462	31	35	17	24	8				115

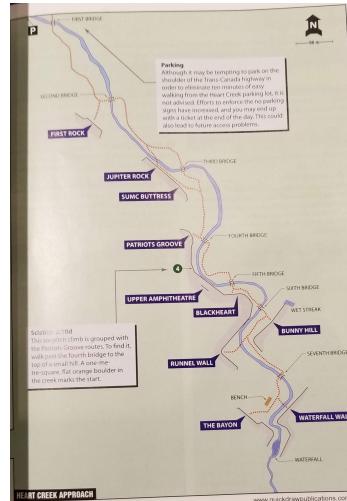
Figure 1: Chart showing distribution of climbing grades (diffuculty) at each crag in the *Sport Climbs in the Canadian Rockies*

2.2 Crag Details and Route Selection

All four books start the area sections with an overview page for the climbing area. This provides details on how to access the crag, a short description of the area, and possibly a map of the area for larger crags (fig 2). All of the books also contained an actual photograph of the different sections of rock, with superimposed lines showing the routes (fig 3a). In *Bow Valley Sport* the superimposed lines are color coded by difficulty (green, blue, black, red). Some of the books also showed hand-drawn illustrations of the routes, with more details such as bolt location, and route length in metres (fig 3b). *Bow Valley Sport* also provides a written description of the route, as well as symbols indicating any specific "styles" (pumpy, reachy, technical footwork, etc) the route may be, and a checkbox to tick when the climb has been completed (fig 3c).

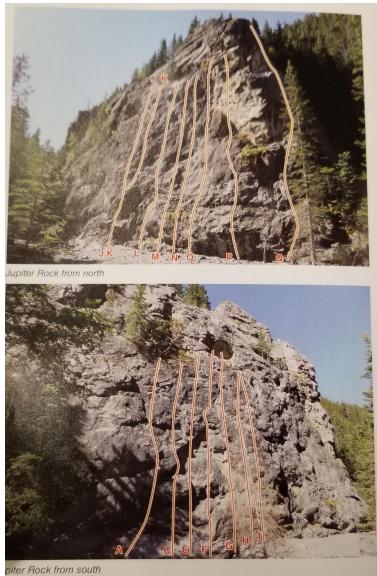


(a) Sport Climbs in the Canadian Rockies

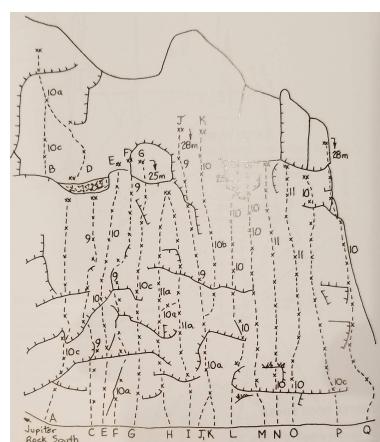


(b) Bow Valley Sport

Figure 2: Climbing area overview maps.



(a) Photograph of rock with super-imposed routes.



(b) Drawing of routes on rock with bolt locations and height above ground.

Jupiter Rock	
<i>Routes are listed from left to right.</i>	
① Limicoline	5.10c
Pitch 1	(5.10c, 8 bolts, 22 m) Start up a small slab that leads to some underclings. Work up tricky, right-trending sidepulls that lead to a small roof and the anchor.
Pitch 2	(5.10c, 4 bolts, 13 m) Four more bolts extend the pitch.
(John Martin (both), 1994)	
② Riparian	5.10a
Pitch 1	(5.9 8 bolts, 22 m) Follow a flake over a bulge to a roof. Surmount it on the left to gain a broken, left-facing corner. Climb directly to anchors below the treed ledge.
Pitch 2	(5.10a, 4 bolts, 13 m) Four more bolts extend the pitch.
(Andy Skuce (both), 1986)	
③ Aphrodite	5.10b
9 bolts (24 m)	Brown hangers mark a line through multiple cruxes. The anchor is left of a big hueco. (John Martin, 1993)
④ Venus	5.10a
10 bolts (25 m)	Use a thin seam to reach easier ground. Good holds in a flake lead to an anchor in the left side of a giant hueco at the top of the wall. (Jon Jones, 1986)

(c) Detailed Route Descriptions and Style

Figure 3: Route location and descriptions from the guidebooks.

3 Mobile Applications

The Mountain Project is a mobile application somewhat similar to the product we intend to design. The main interface (fig 4) contains buttons to find routes/areas near the user, to search by name, or to view routes on a todo-list. To find a specific climbing area, the user first searches by name, taps on the area, and is then taken to the area overview screen (fig 5a).

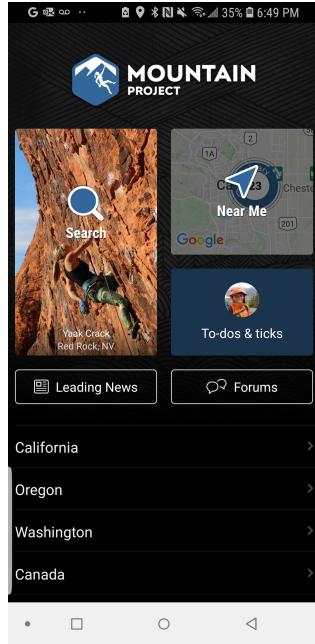


Figure 4: Main screen of *The Mountain Project* application.

Much like in the guidebooks, the climbing areas are further divided into the (named) rock faces. The routes are displayed in a list format (fig 5b). Again, tapping on a named rock face shows an overview of the face (fig 5c). Tapping on a route displays information about the route, and possibly a photograph of it. There is also functionality for users to add the route to their todo list, tick it when done, rate the climb, and share (fig 6).

4 Conclusion

All of the guidebooks were very similar in that the climbs were divided by region and plotted on either a photograph or drawing of the rock face. This suggests that users who are using the book in the field want to be able to correlate what they see in real life, with the route information in the book. The Mountain Project application contains many other features (such as search capabilities, route rating, an updatable to-do list) that are not really possible to implement in the form of a book. However, The Mountain Project is lacking as it does not have photographs with superimposed routes like the guidebooks do. It appears to be more of a search tool, than a visual aid for use in the field. The application we are designing could likely combine the best aspects of both the guidebooks (quickly identifying what routes are in front of the user) and The Mountain Project (advanced capabilities such as ratings, to-do list and search).

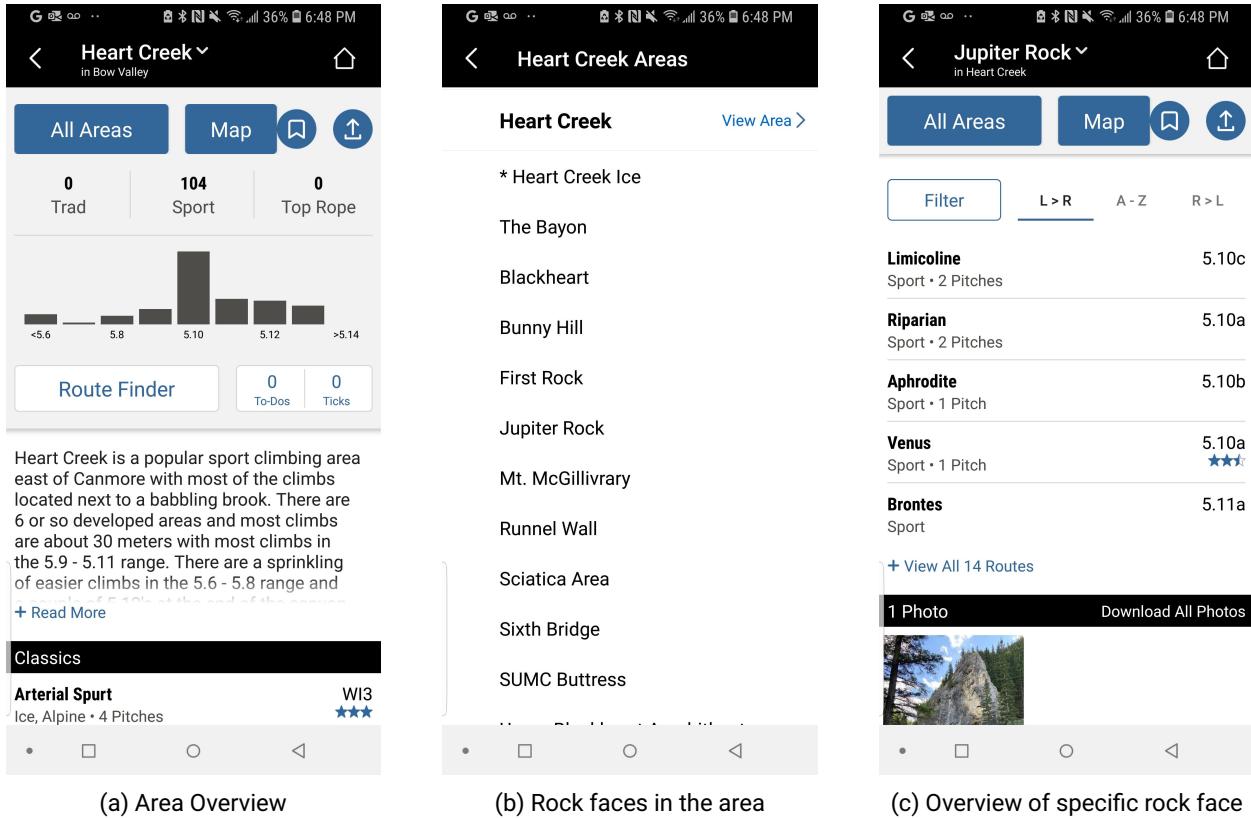


Figure 5: Route Selection UI interface for *The Mountain Project*

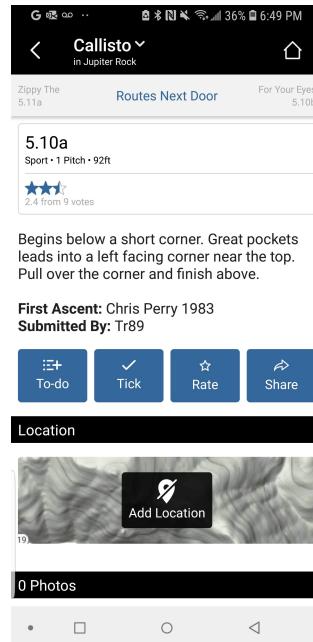


Figure 6: Route description page for Callisto

References

- [1] Derek Galloway. *Bow Valley Sport*. English. 2nd ed. Quickdraw Publications, 2017. ISBN: 9780987779687.
- [2] John Martin and Jon Jones. *Sport climbs in the Canadian Rockies*. English. 7th ed. Rocky Mountain Books, 2016. ISBN: 9781771601023.
- [3] Chris Perry and Joe Josephson. *Banff Rock*. English. Rocky Mountain Books, 2000. ISBN: 092110247x.
- [4] Charles Yonge. *A climber's guide to Kid Goat Crag*. English. 2012. ISBN: 9780987936905.