

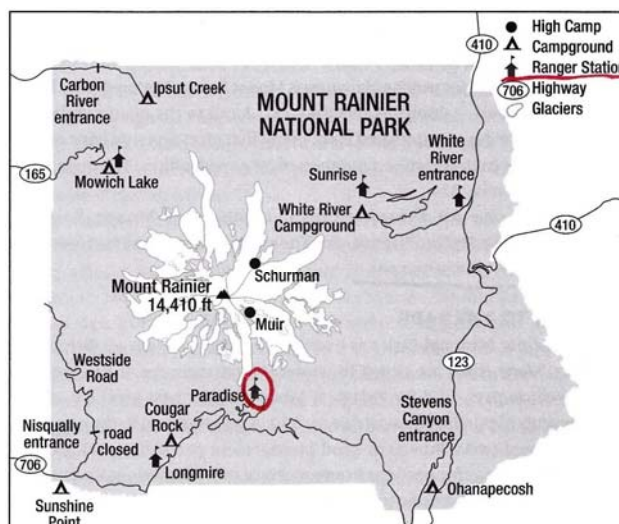
## 資料1 Mt.Rainier 登頂ルートについて (大塚)

アメリカ合衆国大太平洋岸北端に位置するレニア山(14,410ft、4,366m)はその風光の明媚さとアプローチの便利さによって多くの観光客や登山者、トレッカーを引きつけている。そのうち、登山目的で入山する人は年間約1万人、登頂率は50%程度である。



レニア山は独立峰であるから登山ルートは山の全周に分布し、4登山口・10方面ルートからなるが、個別ルートで見れば合計で40近くのルートを数える。難易度は異なるが、全てのルートが氷河ルートであり、その中には岩稜帯を通過するルートもある。

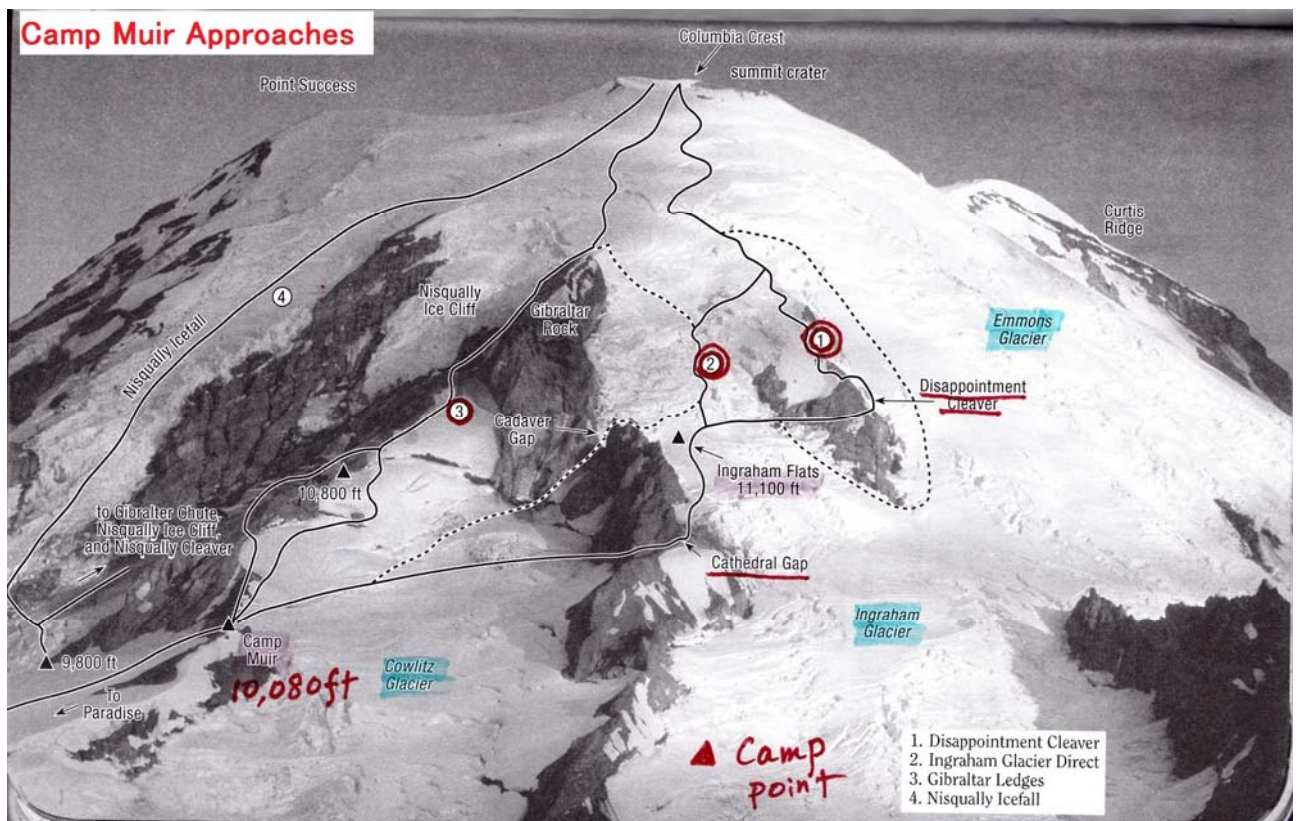
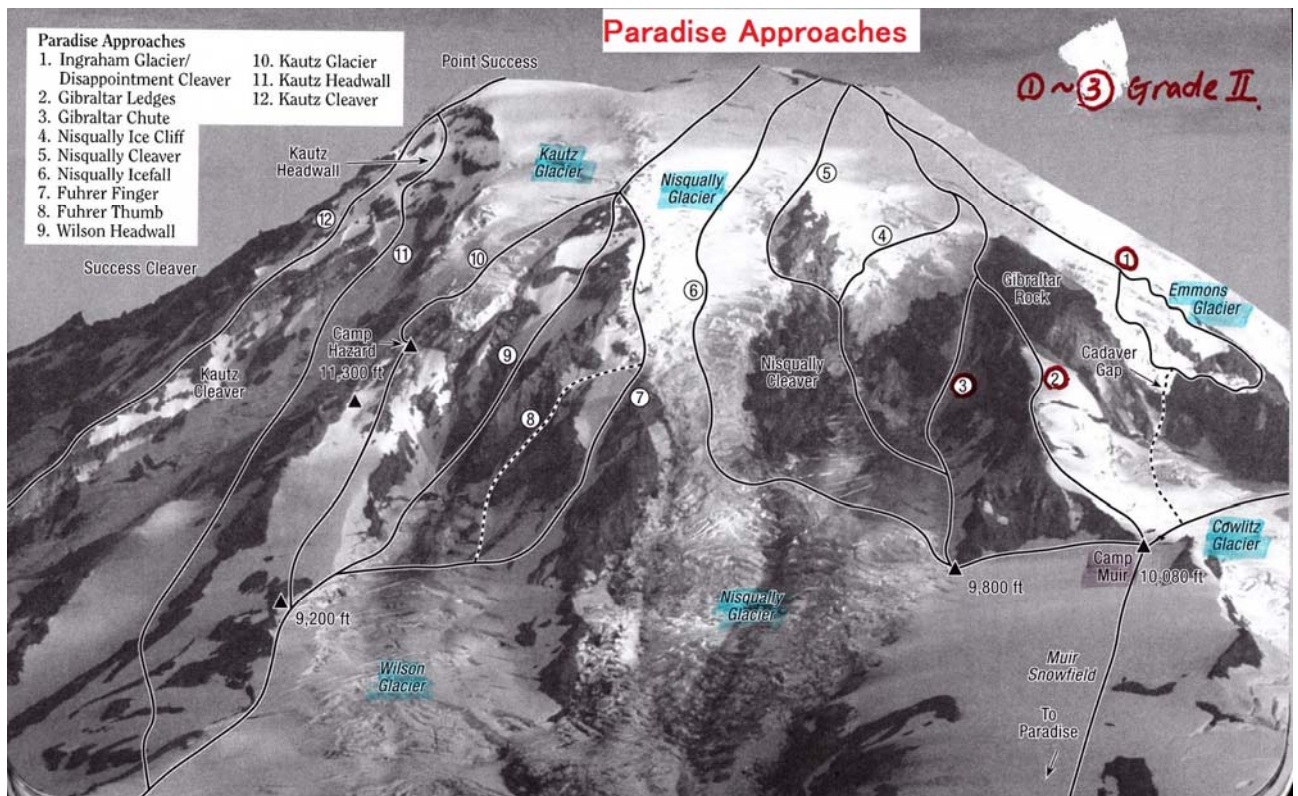
このうち、シアトル国際空港からのアプローチが比較的近く、また登山口が一番山頂に近い登山口を選ぶと、南側の「パラダイス」登山口となる。「パラダイス」から登るルート(方面ルート)には4方面ルートがあり、このうち一番ポピュラーなのが、収容人員が一番多いキャンプ・ミュアをハイ・キャンプとして登る「キャンプ・ミュアルート」である。「キャンプ・ミュアルート」には7つの主要ルートがあり、グレードは“NCCS”(\*1)でⅡまたはⅢ。そのうちⅡのルートには下記の4ルートがある。この4ルートの諸元は下表のとおりである。



#	ルート	獲得高度 ft	日数 days	適期
1	Disappointment Cleaver	9,000	2~3	6月以降
2	Ingraham Glacier Direct	9,000	2~3	4~5月
3	Gibraltar Ledges	9,000	2~3	冬期(12~6月)
4	Gibraltar Chute	9,000	2~3	冬期(12~6月)

(注\*1) このグレードはNCCS(The National Climbing Classification System)で設定されたもので、アメリカでのアルパインクライミングに使われている。グレードを評価する要素は「登攀に掛かる時間」と「技術的難易度」であり、これらの標準は熟達者のレベルを基準としている。Ⅱは「困難な氷雪や岩場の部分が半日以上程度続き、技術的に多少困難な部分を含む」と定義され、Ⅲは「困難な氷雪や岩場の部分が1日程度続き、技術的に困難な部分を含む」と定義されている。グレードはⅠ(最容易)からⅥ(最困難)までが設定されている。

以下に、パラダイス登山口からのルート図、及びキャンプ・ミュアからのルート図を示す。





さて、我々はメンバーの技術力・体力、及び遠征時期と遠征期間などの制約から、上表のうち#1 と #2(Disappointment Cleaver 及び Ingraham Glacier Direct)に限ってそのルート状況及び登頂の可能性を検討した。それぞれのルートの特徴と検討結果は以下のとおりであった。なお、この2ルートはレニア山の登山ルートの中で最もポピュラーなルートであり、年間約6千人以上が入山している。

### (1) #1=Disappointment Cleaver ルート

- ①非常に展望の良いルートである。“Disappointment Cleaver”は、さしずめ日本では積雪期・残雪期の「偽ザイテングラート」とでも訳すべきものであろうか。
- ②多くの入山者がいるルートなので、シーズン中はトレースがある（ただし、降雪直後や氷河の移動、セラックの崩壊などによってトレースは不明になることがあるので要注意）。
- ③登山者の行列ができていることも多く、それだけに“秘境的な”ものを期待してはいけない。
- ④このルートの登山口から頂上までの獲得高度は9,000フィート(約2,700m)
- ⑤登山所要時間は、登山口から山頂までの往復で2~3日間、キャンプ・ミュアから山頂までの登攀に6~8時間、山頂からキャンプ・ミュアまでの下山に3~4時間。
- ⑥ハイ・キャプの場所は、キャンプ・ミュアまたはIngraham Flatsが可能。
- ⑦ルートは崖錐、氷結した岩場、雪で覆われた氷河を通過する。
- ⑧ルート上では、氷河上ではセラックからの氷塊落下、スノーブリッジの崩壊、岩稜帯では落石に注意が必要。特にロープを出す岩稜帯下部では、氷結が弛む昼間には先行者の足やロープが落石を惹起するので、一層の注意が必要となる。
- ⑨このルートは、次項のIngraham Glacier Directルート上の雪が解けてルートが不明瞭になる6月、7月になると、Ingraham Glacier Directルートからこちらのルートが恣意的に選択されるようになるので、入山者が多くなる。

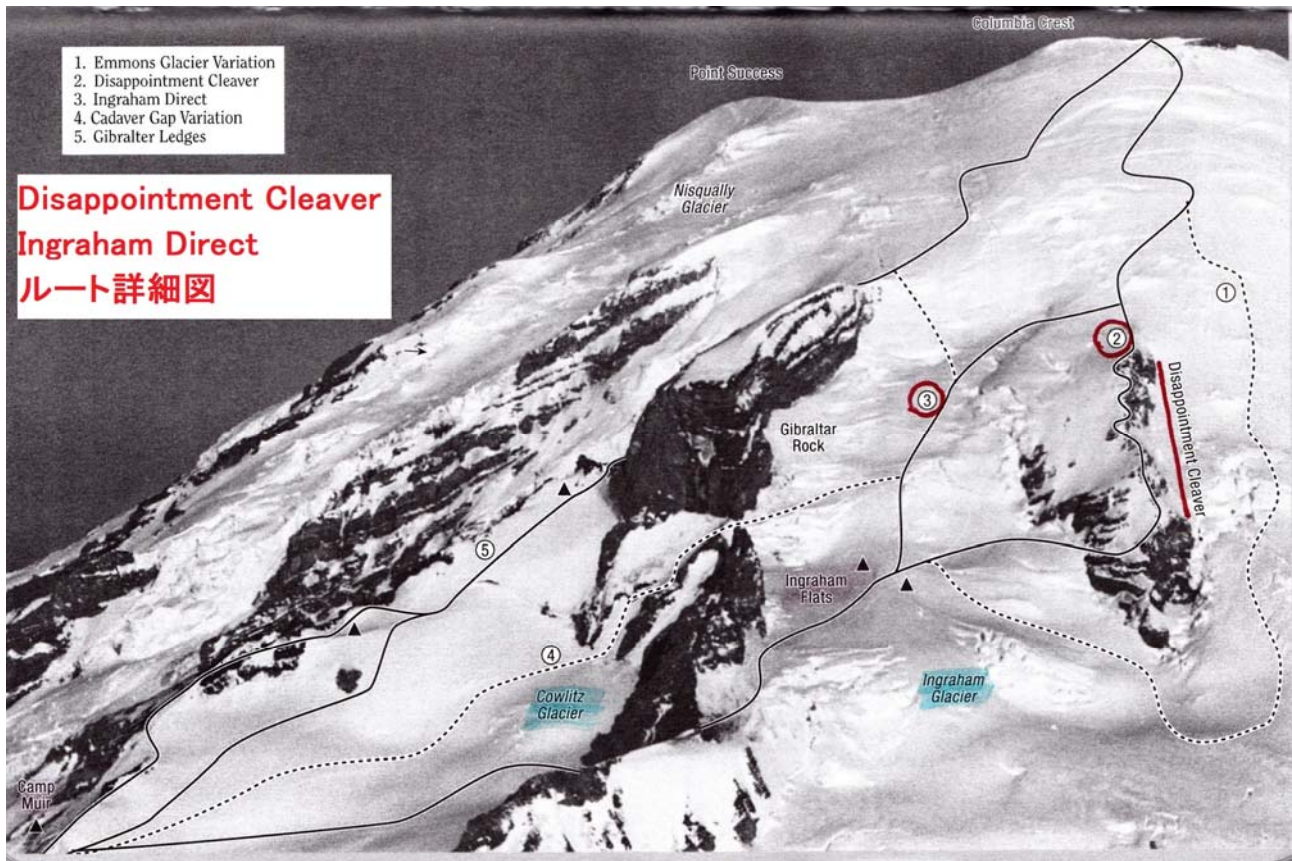
### (2) #2=Ingraham Glacier Direct ルート

上記(1) Disappointment Cleaver ルートと②~⑥は同様であるが、Disappointment Cleaver ルート cleaver(岩稜帯)に入る箇所と岩稜帯先端部での雪崩の危険を避けるために Ingraham Glacier を直登するルートである。このルートは前者に比べて登山距離も短い。しかし、Ingraham Flats 上部の下部アイスフォールでは崩壊ブロックの落下に注意が必要である。

このルートはシーズン初期(4~5月頃)に人気が高い。上述したように、このルートは6、7月になると融雪のためにルートが不明瞭になるので、余り使われなくなり次第に Disappointment Cleaver ルートが選択されるようになる。

なお、登山に要する期間や標準ルートタイムは上述のとおりであるが、これは米国の屈強な若者&熟達者を基準としているので、登山計画策定に当っては体力・技術力・年齢などによって余裕を持った日程を策定する必要があることは言うまでもない。また、山頂の標高が4,400mに近いことから高度順応の日程も必要になる。

以下に上述2ルートのルート詳細図を掲げておく。



参考までにこれら2ルートの詳細ガイドを次ページ以降に添付する。

(出典：Mike Gauthier. *Mount Rainier ~A Climbing Guide~*. 2<sup>nd</sup>. ed.

Seattle: The Mountaineers Books 2005、上記ルート図版も同書より引用)

# PARADISE APPROACHES

Thirteen climbing routes encompass most of Mount Rainier's south side and can all be accessed from the Paradise area.

These climbs are categorized by proximity to Camp Muir, Wapowety Cleaver, or the Kautz Glacier area.

## **Camp Muir routes**

Ingraham Glacier Direct

① Disappointment Cleaver

( Gibraltar Ledges (Gib Ledges)

Gibraltar Chute (Gib Chute)

Nisqually Ice Cliff

Nisqually Cleaver

Nisqually Icefall

→ (6月以降向き)

《6月以降向き》

→ 冬期向き

## **Wapowety Cleaver routes**

Fuhrer Finger

Fuhrer Thumb

Wilson Glacier Headwall

## **Kautz routes**

Kautz Glacier

Kautz Headwall

Kautz Cleaver

Paradise is the major destination for most visitors coming to Mount Rainier National Park. There you'll find the Henry M. Jackson Visitor Center (the large, distinctive round building), the Paradise Ranger Station, the Climbing Information Center, and Paradise Inn. Register and secure your climbing permit at the Climbing Information Center, located in the historic Guide House across from the inn at the upper end of the parking lot. If the center is closed and the Jackson Visitor Center is open, get your permit there; it's .25 mile back down the road.



## CAMP MUIR ROUTES

Seven climbing routes are best accessed from Camp Muir and the upper Muir Snowfield. Camp Muir has Rainier's shortest high-camp approach, and the climb from Paradise to Muir is one of the most popular in the park. Most parties take 4 to 8 hours to climb the 4,500 feet of elevation gain to Muir. Even the lower part of the route is often covered in snow till mid-June, but the trail to Pebble Creek at 7,200 feet melts out by midsummer. Near the start of the trail, climbers pass through Paradise Meadows, one of the park's most popular visitor attractions. Expect hundreds of day hikers and sightseers in summer.

**Getting to Camp Muir:** From the Paradise upper parking lot (5,420 feet), take the Skyline Trail 1.5 miles to Panorama Point (6,900 feet). In summer, follow the trail to Pebble Creek (7,200 feet), where Muir Snowfield begins. When this section is heavily snow-covered, continue along the broad ridge above Panorama Point, staying west of McClure Rock (7,385 feet) to Muir Snowfield.

Once on Muir Snowfield, ascend north-northwest to Camp Muir at 10,080 feet. Along the way, climbers get dramatic views of Mount Adams, Mount St. Helens, Mount Hood, and sometimes even Mount Jefferson in central Oregon. The snowfield occasionally gets small crevasses in late summer, and the terrain is deceiving and difficult to navigate without the aid of a compass during storms and whiteouts. A map that includes compass bearings between Paradise and Camp Muir is available from the Park Service; you can ask for one when you get your permit.

Camp Muir has a ranger hut, guide/cook shack, client hut, outhouses, a public shelter, and tent camping areas near the shelter. The shelter building can accommodate thirty climbers overnight. An emergency radio is kept inside. The shelter is open year-round, but during the winter and spring the door is frequently blocked with spindrift snow that accumulates after storms, and climbers should then expect to dig for an hour to get in.

### **Ingraham Glacier Direct and Disappointment Cleaver**

These routes, the most popular on Mount Rainier, see more than six thousand climbers attempting the summit every year. These mountaineering classics begin where teams leave Camp Muir and cross the Cowlitz Glacier to Cathedral Rocks, a volcanic rock ridge, and then move onto the Ingraham Glacier. The route offers great views of Little Tahoma and Gibraltar Rock as teams ascend the steeper sections of the Ingraham Glacier or Disappointment Cleaver to access the upper mountain. The final push onto the upper Ingraham and Emmons Glaciers leaves the smaller peaks of the Cascade Mountains behind as Glacier Peak and Mount Stuart in the north come into view and the crater rim and summit are reached.



Although these routes are rewarding to climb, their popularity leads to heavy use and crowds. Do not expect a wilderness experience. There will be other climbers, and possibly even lines, at tight locations along the route.

**RMI.** Rainier Mountaineering, Inc. leads more than three thousand climbers up the DC—Disappointment Cleaver—every year. The guides do an excellent job ensuring that the route remains climbable throughout the summer—digging out the route, fixing hundreds of feet of rope, and sometimes even carrying ladders high onto the mountain to bridge small crevasses. Teams that leave Camp Muir late and fall behind a guided team should not become frustrated. Consider the route and its popularity, and enjoy the view.

**ELEVATION GAIN** • 9,000 feet from Paradise to Columbia Crest.

**WHAT TO EXPECT** • Rockfall and icefall hazards; 35- to 45-degree snow and ice slopes. Grade II.

High Camp  
↔ Summit  
往復  
9~12 hrs.

**TIME** • 2 to 3 days; 6 to 8 hours from high camp to summit, 3 to 4 hours for descent to high camp.

**SEASON** • May through September.

**FIRST ASCENT** • Uncertain; possibly Allison L. Brown and six or seven Yakama Indians in 1885 or 1886.

**HIGH CAMP** • Camp Muir (10,080 feet) or Ingraham Flats (11,100 feet).

ガラ場

From Camp Muir, traverse the Cowlitz Glacier to Cathedral Gap (10,640 feet) and continue left along scree, frozen rock, and ice (snow-covered in early season) to Ingraham Glacier and to Ingraham Flats at 11,100 feet. The Ingraham Flats glacier camp enjoys dramatic summer sunrises and is a great high camp for teams wanting a shorter summit day. Climbers must use the blue bag disposal system at Ingraham Flats.

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An option for the route from Camp Muir to Ingraham Flats is to climb through the higher pass in Cathedral Rocks called Cadaver Gap. From Camp Muir, ascend north-northwest up the Cowlitz Glacier, skirting the bergschrund to the 11,250 foot gap, arriving just above Ingraham Flats. This variation has a reputation for avalanche and is a bit steeper than going over Cathedral Gap, but some climbers prefer it for its directness.

From Ingraham Flats, there are two principal routes: the Ingraham Glacier Direct and Disappointment Cleaver.

In the early season, most climbers prefer the Ingraham Direct route because it is shorter and is less exposed to avalanches than the entrance and nose of Disappointment Cleaver. From Ingraham Flats, ascend westerly to the Ingraham Icefall. Move rapidly in the lower section of the icefall to avoid falling blocks, which occasionally cut loose and sweep parts of the route. Once in the icefall, continue up 25- to 30-degree slopes as you weave around crevasses and seracs to connect with the top of Disappointment Cleaver (12,250 feet). Occasionally, parties will



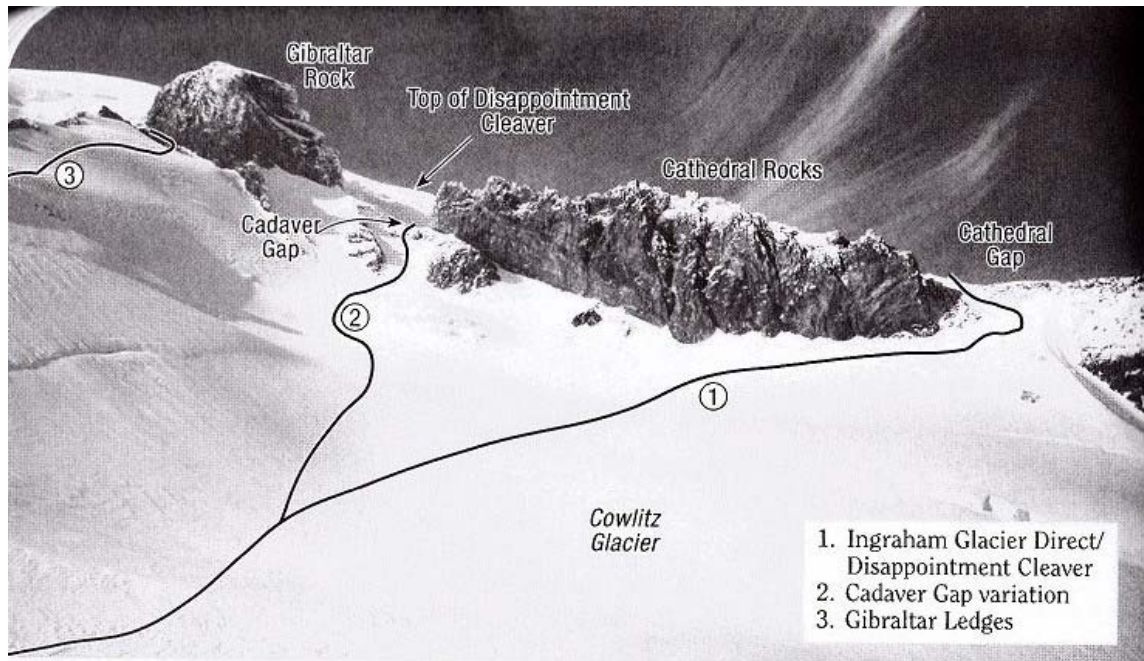


Photo taken from Camp Muir

climb to the left, or southerly, side of the glacier and connect with the top of Gibraltar Rock (12,600 feet), ascending slopes as steep as 50 degrees.

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The **Disappointment Cleaver route** becomes more popular in June and July as the Ingraham Direct melts out and crevasse navigation becomes problematic. From Ingraham Flats, head westerly to gain the cleaver on a ledge system of crumbling rock 300 feet above the Flats. Move quickly and watch for icefall from seracs on the Ingraham Glacier while accessing the lower cleaver. Once on the cleaver, be extra conscious of other parties. This is a bad area for passing other rope teams, and it is noted for its high rockfall potential. The boots and ropes of other climbers loosen rocks, as do the warmer temperatures later in the day. The lower section of the cleaver is steep—30 to 45 degrees—and switchbacks up rock or southerly exposed snow slopes as it climbs to gentler terrain. Eventually the route reaches the top of the cleaver at 12,250 feet, a good rest spot. Another summit variation passes below the Disappointment Cleaver, and climbers ascend the Emmons Glacier instead. It is a bit longer; some teams prefer this variation over Disappointment Cleaver or Ingraham Glacier Direct because they wish to navigate their own glacier route to the summit.

The Ingraham Direct and Disappointment Cleaver routes join here at the top of the cleaver. Ascend the Ingraham and Emmons Glaciers to the summit on 25- to 30-degree slopes, negotiating crevasses and unstable snow bridges along the way. Climbers who choose to ascend from Ingraham Flats to the top of Gibraltar Rock will find similar conditions on the way to the summit. The routes reach the crater rim at 14,150 feet. From there it's about a 20-minute walk to Columbia Crest, the true summit, at 14,410 feet.

**Descent:** Descend the route you climbed. Move quickly in dangerous areas, and plan rest breaks for safe locations. The late-morning and afternoon heat weakens snow bridges and greatly intensifies rockfall hazard.

以上