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Jonathan Siegrist climbs the Third Millennium (14a) at the Monastery, Colorado. Photo by: Keith Ladzinski

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## FISTS

Fist cracks are also one of the natural sizes, and are relatively easy and straightforward to climb, providing the crack is well sized. However, the ability of your fist to adapt to different crack sizes is very limited — unlike with hands, either your fist fits or it doesn't, though you can modify *how* you place that fist to slightly expand its size range (more on that later). It seems like most fist cracks are memorable for being either too tight or too wide. Many climbers seem to have a phobia of fist cracks, which, in my opinion, is unwarranted. The anxiety probably stems from their inability to change their fist size to fit the crack, and the feeling that the jam will pop without warning. To its benefit, a fist jam can be very secure and not strenuous, especially when used passively like a big chock (think of a No. 11 Hex).

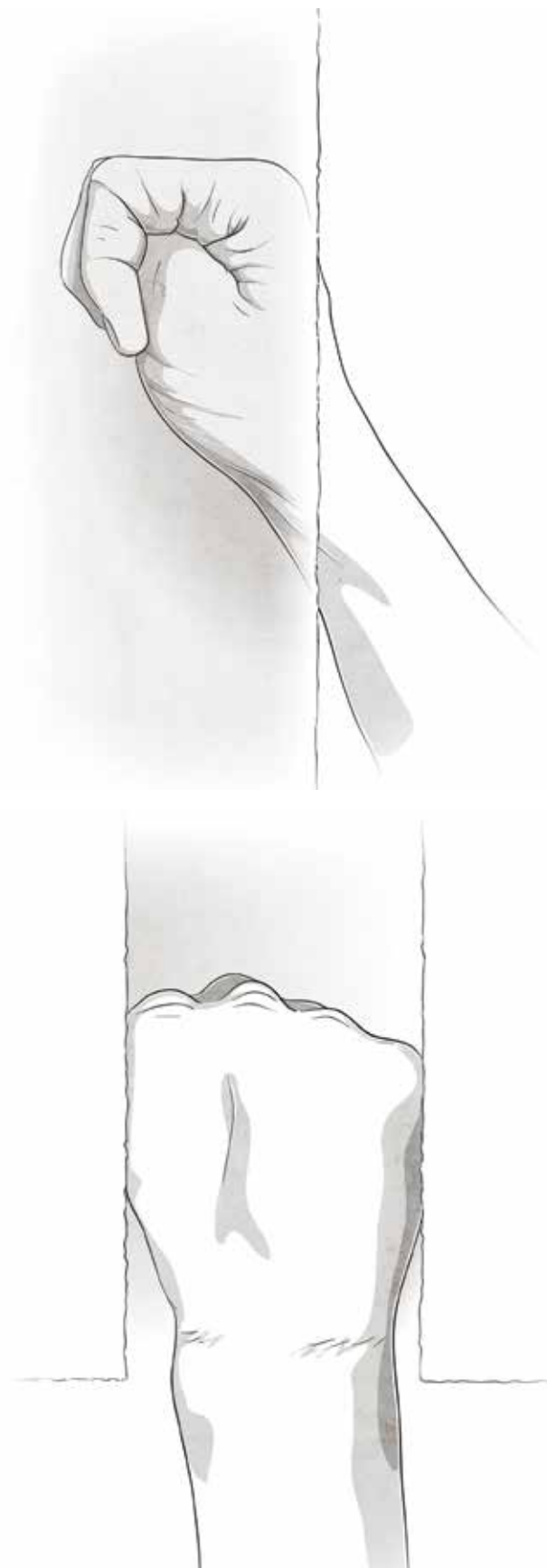
A few of the many notables in North America include: *SS Maywood* (5.10b) at Vedauwoo, *Meat Hooks* (5.10+) and *Wiggins I* (5.11-) at Indian Creek, *Tulgey Wood* (upper pitch, 5.10a) at Devils Tower, and *Moby Dick* (5.10a) in Yosemite.

Cracks slightly too narrow for your fist can be frustrating, since you can't shrink your fist. Similarly, cracks a bit too wide are also troublesome in a different way — being technical, insecure, and strenuous. The good news is that special techniques can help at both ends of the spectrum. We'll start with fist jams for well-sized cracks including a few variations, followed by how you adapt the jams for tighter sizes and wider sizes, respectively.

## BASIC FISTS

The most common (and natural) version is to orient your fist with the knuckles horizontal across the crack and your palm facing down or away from you (see figures to the right). The opposite orientation, with your palm facing up or toward you, is occasionally useful, especially when placed low; but it can feel odd and is less commonly used. In either case, slip in your hand, find the right spot, and clench a fist.

You can effect small differences in width by placing your thumb either inside or outside your fist, or even between your fingers as shown in the figure on the next page. Making the fist with my thumb inside makes a tight knot and feels most solid to me.



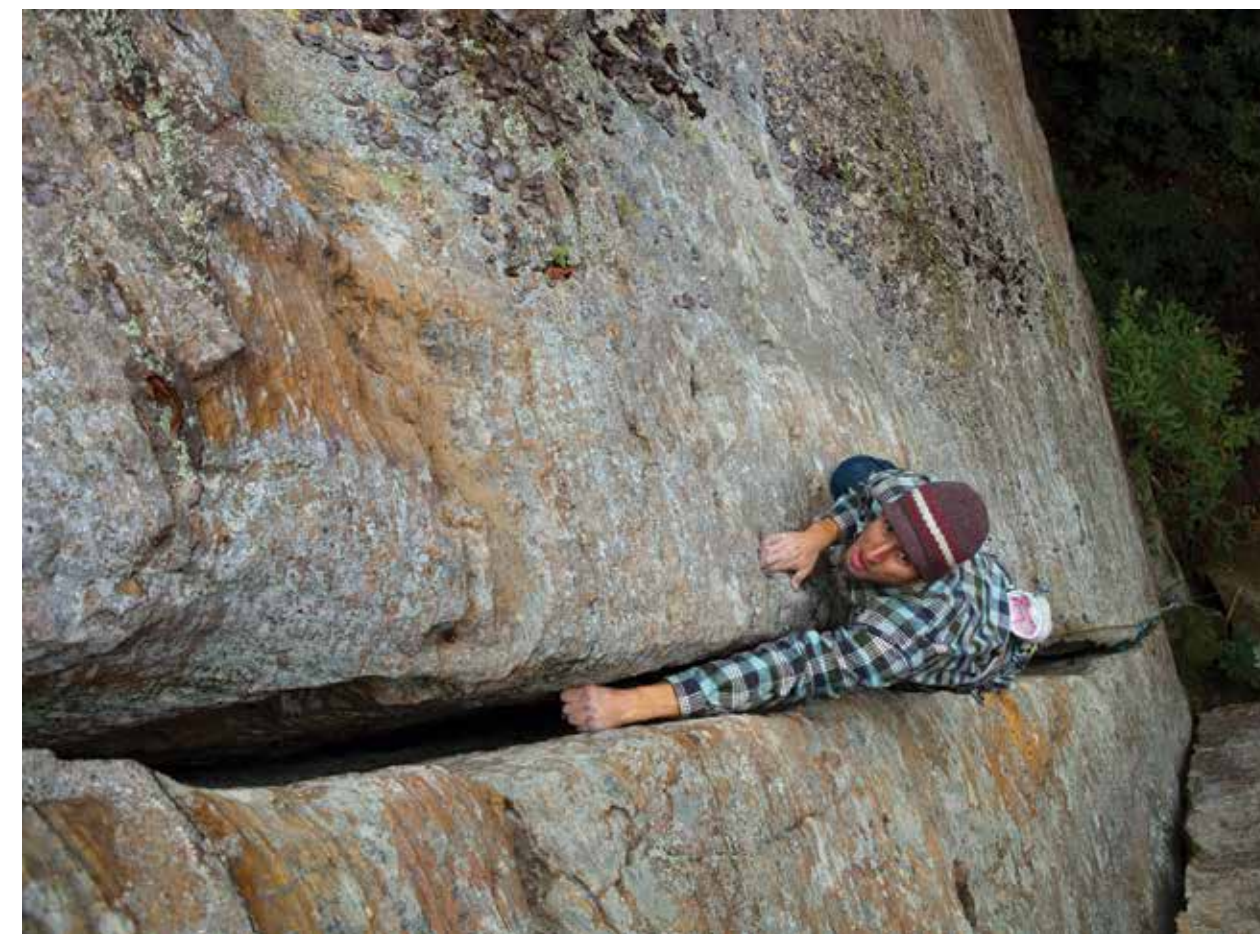
Split



Inside



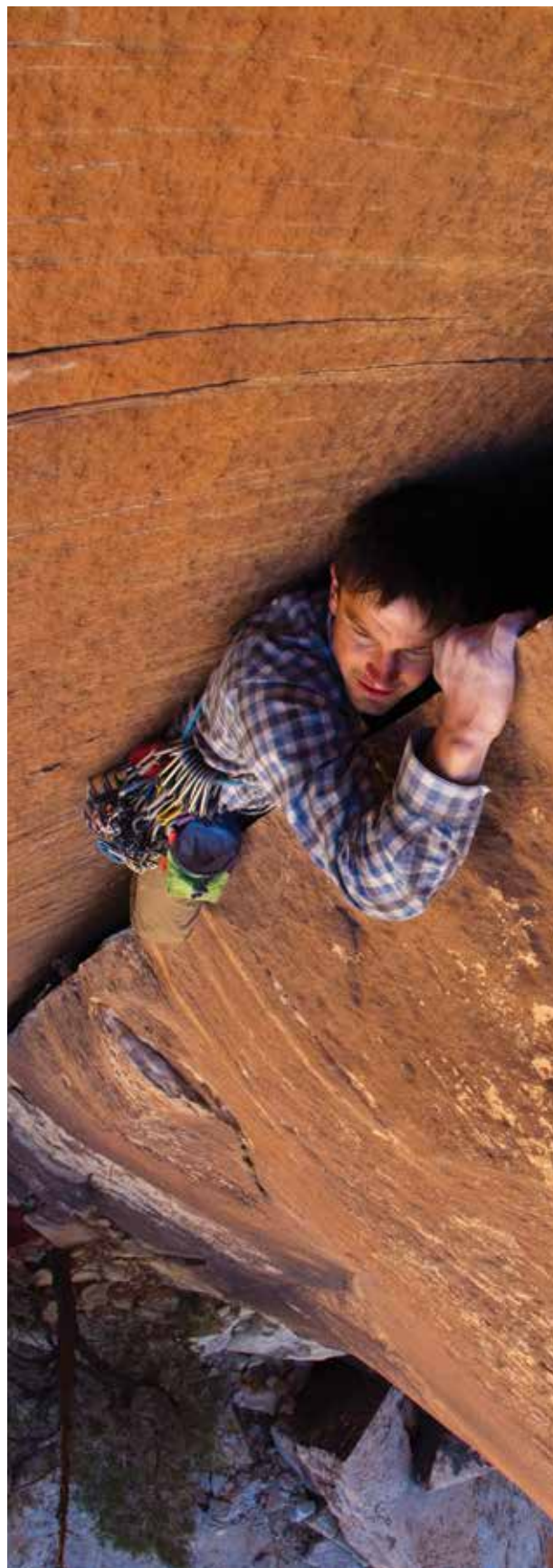
Outside

Peter Vintoniv hangs up the draws for a moment to enjoy a little *Marmalade*, 5.9, Red River Gorge, KY.

**BACK STEP (INSIDE LEG)**

This trick feels odd, but it's a great jam for your inside foot when your knee doesn't fit. It works well in both corner cracks and splitters.

Face sideways to the crack (back against the crack wall) and back-step with your inside foot as shown below. Your toes will be pointing down. You're basically in a traditional OW position, although your inside leg is not buried in the crack. Use your outside leg to push off the face or in a "back heel" foot jam (see the following subsection).



Chris Van Leuven on *Chrysler Crack*, 5.9, Red Rocks, NV.



For your upper body, choose from your standard arsenal of arm positions: arm bar, chicken wing, and reverse side-pull. Leaning forward sometimes creates a camming action, making your arms more solid.

When I use a back step, it is commonly as an intermediate jam between other positions, rather than for continuous movement. It makes a nice tactic for your repertoire of techniques.

**BACK HEEL (WITH BACK STEP)**

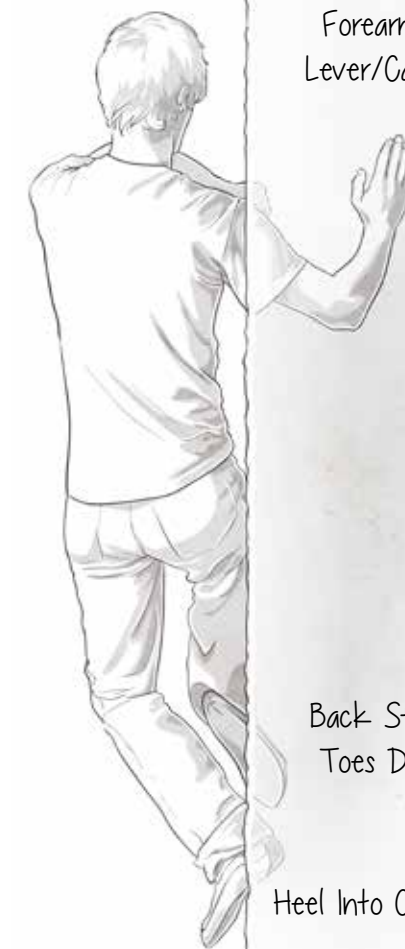
This is a bizarre and highly effective footwork combination that is useful for tighter-than-knee off-widths. Thanks go to Lamont Smith for this innovation, which can make 5.11 tight OW cracks feel like 5.9.

Back-step with your inside leg (see previous subsection), and then jam your outside foot below with your heel in the crack as shown in the figures above. You'll naturally be facing sideways or slightly outwards, with your forearm levered/cammed in the crack (being a contortionist helps). Sure, this technique feels weird and contrived — almost like you're falling out of the crack — but the surprise payoff is that you're naturally torquing on your arm like a coiled spring, without using much muscle. If it feels all *wrong*, then you're doing it all right! Describing a back heel as a foot jam is an oversimplification, since your entire body is involved. To move, shuffle up in small scootches.

Face Sideways



Forearm  
Lever/Cam



Back Step -  
Toes Down

Heel Into Crack

I use this technique infrequently and only for tighter-than-knee splitters. I'm solid when fully in this position and I move effectively, but transitioning to/from other positions is tenuous, and I generally prefer more straightforward approaches.

## LIEBACKING

## OVERVIEW

We'll often pull into a lieback to bypass a section that's difficult to jam, especially with off-sized cracks, shallow cracks, and flakes. In other situations, we simply find liebacking to be expeditious or even "easy" compared to technical or insecure jamming.

Sometimes though, liebacking is "too easy," and we'll revert to the technique unconsciously if not unwisely. Even experienced crack climbers occasionally get "sucked in" to a lieback — beware of the vortex! Because liebacking feels so natural, it is often a convenient alternative when our jamming skills are insufficient, and powerful climbers can often muscle through difficult sections by liebacking. For this reason, jamming purists label it as "the technique of no technique" — in other words, you won't get any *better* at crack climbing if this is your default mode when the going gets tough.

However, when done well, liebacking is more subtle and technical than it first appears, and involves a range of skills beyond brute strength and endurance. To develop your liebacking skills, choose nearly any corner crack at Indian Creek and start walking up (although you'll be missing out on the good jamming). What follows are a few basic skills and suggestions, both for good liebacking technique and for your mind.

## BODY POSITIONING

Finding the ideal body position while liebacking involves a tradeoff between power and security: At one extreme, balled up with your feet high and pushing hard on the wall in front of you, you pull hard on your arms and feel secure; whereas at the other extreme, with your feet lower, your arms are less taxed but you're also more vulnerable to slippage. Note the differences in the two positions shown in the figure on the next page. By positioning his body far from the rock, the climber on the left pushes hard into the rock face with his feet (also his soles contact more rock) generating a lot of friction, and he pulls hard on his arms and feels secure. In contrast, the climber on the right is nearing the point at which his feet will lose traction; however, his arms are also significantly less stressed.

## Wheat Thin

For an unforgettable experience, try *Wheat Thin* (5.10c) in Yosemite Valley. The climb ascends a thin, delicate flake located high above the canyon floor, giving it an airy and foreboding feel. A crisp edge on the flake invites you to pull back, and even ardent crack climbers eagerly abandon jamming in favor of a lieback.

Walking up the flake is balancey and committing, which adds to your feeling of exposure. Once you start liebacking, the movement feels fun and natural. However, a couple angled sections will swing your body sideways like a barn door, requiring skillful footwork and balance to stay attached. At times you feel comfortable and can stand nearly straight up, but in other situations you need to lean back and pull through. Although *Wheat Thin's* individual moves are not especially strenuous, the pump builds with time.

To be most efficient, trend toward a vertical position with your body close to the crack, and your hands well above your feet. Your goal is to near the equilibrium point and to lean back only enough to make your feet stick — any more and you're wasting precious strength. Often a full-on lieback is not necessary, and a controlled lay-away suffices.

One way of developing finesse is by minimizing the lieback — I think of it as "cheating" the lieback. Use any tricks and skills you can to avoid a powerfest. My experience is that there is a non-linear response: by reducing my arm stress by 15 percent I can double my endurance time, and by reducing arm stress by 30 percent I can hang on indefinitely (your results may vary).

## ARM POSITIONING

Normally your inside arm (the one against the sidewall) will be higher, which feels natural, and is typically more secure and less strenuous than the reverse position. Occasionally, you'll cross above with your outside arm such as when reaching for a good hold, as part of a sequence, or simply because it feels right.

The common recommendation is to climb with your arms straight, loading your joints rather than pulling with your muscles. However, this position also places your torso farther from the crack, thereby increasing the stress on your arms. I've found that it's best to

keep my arms somewhat bent, thereby placing less stress on them. I also have a better feel for the rock in this position. (Note that your fingers and hands — not your arms — are usually your *weak link*, and climbing with straight arms doesn't reduce the stress on your fingers and hands, so there's no net gain by doing so.)

## FOOTWORK!

As a general principle, placing either foot up high seems to work equally well, so do what feels best at the moment.

Good footwork while liebacking — precise placement, and subtle loading and balance — has the dual benefit of shifting more weight directly to your feet and allowing you to suck in closer to the crack, thereby relieving your arms. Avoid pure friction with your feet by using face holds, and by jamming and smearing. Jamming the pinky toe of your inside foot (even your toe edge or tip) is especially helpful for weight transfer. Even if the crack is too thin for jamming, exploit the corner with a sole/rand smear. For both jams and smears, consciously rotate your toes into the corner and press them into the crack or sidewall (see the "Foot Positions Related to Body-Work" and "Corner Footwork" subsections in [Chapter 4: Medium Cracks](#)).

