Buttermilk-Marinated Skirt Steak

Most cuts of beef are from animals that are grain-finished—switched to a diet that includes grains for a few months before slaughtering—as opposed to grass-fed, which I call "grass-finished" because all cows start on grass. Grain finishing results in cuts like ribeye and strip steak having over twice as much fat as their grass-finished counterparts (around 5.2% intramuscular fat instead of 2.3%). No wonder cooking grass-finished cuts is tougher!

Most marinade ingredients don't penetrate very far into meat, but enzymatic agents and acids do, given time. As a general rule of thumb, small molecules like sodium ions from salt take about 24 hours to travel an inch through cuts of meats. This is why marinade-based recipes call for long hold times—it's not just a matter of how strong the marinade will be, but how much of the tissue will be exposed to it.

In theory, using the right marinade on extremely lean cuts of meat, especially grass-fed cuts, should improve their texture. Enzymatic tenderizers are used in commercial processing where they can be exposed to the meat early in the slaughtering process; home use can lead to mushy textures. Lactic acid, and potentially calcium, in buttermilk will tenderize meats and doesn't have this issue.

In practice, there's a lot of debate about marinades impacting meat texture. Visual inspection of a marinated piece of meat sliced in half only shows a change in a thin outer layer, and flavor tests seem to support this. But textural differences are not the same thing as flavor! Clearly, acids and salts do penetrate through tissues: a scallop marinated ceviche-style and sliced in half shows visible differences. Experiment and see what you think.

Place **one** ~2 **pound** (1 kg) flank or skirt steak in a resealable bag and add several cups of buttermilk, enough to keep the meat submerged when the bag is set down. If you like, add herbs and spices to the buttermilk—try the zest from one lemon and a few sliced-up garlic cloves. Let the bag rest in the fridge for 8-24 hours. Remove the meat from the bag, discarding the marinade, and pan-sear the meat in a hot cast iron pan for 2-3 minutes per side. Slice against the grain, cutting perpendicular to the muscle fibers, for the best texture.

This marinade is good with other meats too. Try chicken, letting it marinate for at least 12 hours.