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## NOTABLE NOTES

## Flower Power—The Versatility of Bloodroot

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In preparation for battle, Native American warriors often gathered together to apply war paint as a way to communicate their courage and skill on the battlefield. A warrior renowned for his success in hand combat might bear a symbol in the shape of a hand, and someone who was especially agile might display a zig-zag on their skin.<sup>1</sup> Each design possessed a specific meaning and could be used to intimidate, camouflage, or seek spiritual protection.<sup>1</sup>

The colors used in these designs played an important role in communicating their message. While black paint symbolized victory, red paint denoted strength and power.<sup>1</sup> This striking red color was often extracted from the dark red sap of a flowering white plant known as bloodroot (*Sanguinaria canadensis*), which was native to the woodlands of eastern North America.<sup>2</sup>

In addition to its use in battle, bloodroot served many other purposes for the Native American people. It was used in spiritual rituals, love charms, dyes, and as a versatile medicine.<sup>2</sup> Bloodroot is rich in alkaloids, primarily sanguinarine, which have strong antibiotic and anti-inflammatory effects.<sup>2</sup> Its various unique properties made it ideal for soothing respiratory airways, inducing vomiting, treating rheumatism, and even removing skin lesions.<sup>2</sup>

Bloodroot extract remains widely used in the present day. It can serve as a powerful expectorant for respiratory ailments, including bronchitis and asthma. Owing to its ability to control dental plaque and gum disease, bloodroot is included as an active ingredient in some toothpastes and oral rinses.<sup>2</sup> Bloodroot's sap can also be used to treat skin conditions, such as warts, benign skin tumors, ulcers, eczema, or ringworm.<sup>2</sup> Its use was widely popularized in the 1930s by Dr Frederic Mohs, who, in an attempt to treat skin cancer, developed a zinc oxide paste with bloodroot as a primary ingredient to maximize dermal pen-

etration as a means of treating skin cancer.<sup>3</sup> Although it is now known that bloodroot nonspecifically targets both healthy and pathological skin tissue and can delay proper diagnosis and treatment of skin cancer, there is ongoing research based the work of Dr Mohs to better elucidate bloodroot's antitumor properties and its potential in cancer treatment.<sup>2,3</sup>

While bloodroot has historically proven its versatility, the dermatological community should be aware not only of its beneficial applications, but also of its potentially dangerous adverse effects. When used in toxic doses, bloodroot can precipitate vomiting, heart failure, and death.<sup>1</sup> A topical therapy called "black salve," which includes bloodroot as an active ingredient, has been reported to result in painful eschars and scarring.<sup>3</sup> While it is important to honor the traditions of the past, it is even more important to proceed with caution; for just as every rose has its thorns, bloodroot is not without dangers.

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