

ATW-37

Hot! Hot! - I: Eating Chilies

Eugene, Oregon

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Mr. Richard H. Nolte
Institute of Current World Affairs
535 Fifth Avenue
New York, New York 10017

Dear Mr. Nolte:

Trying to imagine India without red pepper is as difficult as trying to imagine Italy without tomatoes. Yet neither of these fruits was available to the Old World until Columbus brought them back from the Americas.

News of the New World's hot peppers traveled fast. In 1493 an historian, Peter Martyr, reported that Columbus had discovered peppers more pungent than those of Asia, and within a few years the plants themselves reached the Far East. They established themselves so well in Southeast Asia and India that some early botanists thought they were native there. Up to that time, the spice-loving peoples of the Orient had to content themselves with black pepper, ginger, and mustard to stimulate their palates. Red pepper opened up whole new levels of hotness and is today indispensable in the cuisines of all of tropical Asia, western China, and Africa.

Technically, red pepper is not a pepper at all. It was named so because it is pungent like black pepper, which is a member of the pepper family. Red pepper comes from the fruit of many varieties of the genus Capsicum in the potato or nightshade family. Our

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sweet, green and red bell peppers are also capsicums. All capsicums are green when unripe, and all become orange or red if allowed to ripen. The flavor and texture of the fruit change during ripening. For some purposes crisp green pods are better; for others, the sweeter, softer red ones. Hot varieties of capsicum are called chilies; cayenne is one type of chili, usually seen as a powder made from dried, ripe pods.

Chili is a truly American food. New World Indians might have been eating wild chilies 8000 years ago and were probably cultivating them as early as 5000 years ago. Chilies are among the oldest cultivated plants of the Americas. Under the influence of human planters their wild progenitors assumed very diverse horticultural forms. In any open market in Mexico today the traveler will see a bewildering array of chilies of all shapes, sizes, and degrees of pungency. The commonest varieties are named and used for specific purposes: the jalapeño is often pickled; the milder ancho is stuffed; the poblano is ground into mole, a seasoning mixture for stews that includes bitter chocolate and is derived from an ancient dish of chilies and chocolate reserved for Aztec royalty; the tiny, fiery pequín is ripened and dried for a powdered spice. And besides the many named varieties are dozens and dozens of nameless chilies, unknown beyond their localities of origin.

Chili eating in Mexico is a national pastime and constant source of wonder to tender-mouthed visitors from the north. As a rich source of vitamin C, richer than citrus, chili is a most important addition to the traditional peasant diet of tortillas and beans. But even a rugged Texan, used to the hot chili con carne of the border regions, will be stopped in his tracks by some of the peppers casually munched down by Mexican children as if they were gumdrops. I have a picture in mind of an Indian house I stayed in once in northeast Oaxaca, where a five-year-old girl delighted in nibbling on the hottest fresh chilies she could find, fanning her

mouth with her hand between bites and exclaiming over and over to me, "Se pica, se pica," ("It bites, it bites") with an expression of total delight.

The word "capsicum" may derive from Latin capsa, "a box," suggesting the box-like shape of the fruits of some varieties, but it may come also from Greek kapto, meaning "I bite." The latter seems more to the point. The biting quality of capsicum is due to the presence of capsaicin, a compound related to vanillin in its chemical structure. It is a very stable substance that persists through long cooking, drying, and ageing, so that chilies retain their hotness well. The presence of capsaicin in the fruits is determined by a single dominant gene; if sweet peppers are crossed with hot ones, the progeny will all be hot. Incidentally, the maximum concentrations of this compound occur in the placenta, the whitish tissue to which the seeds are attached. Hot peppers may be tamed considerably by removing the placenta and seeds before adding them to other food. And hot chilies can be made even hotter in cultivation by keeping the plants thirsty.

The effect of capsaicin on the oral membranes is spectacular. A person uninitiated into the mysteries of chili eating who bites down on a really peppery capsicum pod may exhibit all the symptoms of terminal hydrophobia. It is difficult to convey to such a sufferer the truth that relief comes only of eating more chilies, but that is the case. Water makes the agony worse. Bread may be slightly helpful. But the only real help comes of plunging in and developing tolerance to the effect. Here we separate the chili lovers from the chili haters. There are those who believe that cayenne pepper is to be dispensed in barely visible pinches and Tabasco sauce in minuscule drops. I am not one of them. To me chilies are an inviting challenge, and I strive to master the art of eating them like a true son of the Americas. I have watched Mexicans cover a slice of fresh pineapple with powdered red chili. I have **seen** them eat

whole pickled jalapeños between bites of sandwiches and cover tortillas with smoky, barbecued chilpotle peppers, so hot you expect them to eat through their containers. I have seen Mexican youths engage in chili-eating contests to extend their limits. I can tell by their expressions that all of these people are on to something good.

Now there must be a reason why so much of the world's population loves to eat chilies. Why should people willingly subject themselves to something that on first meeting seems so painful and irritating?

There is no question that capsicum can be irritating. Aerosol sprays of liquid capsicum have protected postmen from attacking dogs and city dwellers from muggers. Here is an American tradition; the Incas used liquid capsicum and the smoke of burning pods as agents of chemical warfare. Capsicum has been used as an agent of torture in both the New and Old Worlds. I have read that among the ancient Mayans it was customary to rub chili into the eyes of young girls caught glancing at men. And if a girl were proved unchaste she had chili rubbed into her private parts as punishment. The smoke from burning chili pods is an effective fumigant: it will clear a room of human beings within seconds and of vermin in about an hour.

Although the irritation produced by chili is intense, it does not seem to do any damage. Inhabitants of Europe and temperate North America are inclined to look down upon chili eating as a nasty habit of the tropics, likely to be bad for the health and especially for the well-being of the stomach. But all herbalists regard capsicum as an excellent therapeutic agent, particularly good for the stomach and entire digestive tract. Books on herbal medicine are unanimous on this point and recommend capsicum vigorously for many uses. For example, Jethro Kloss, author of the popular herbal, Back To Eden, writes of it (1):

There is, perhaps, no other article which produces

(1) Beneficial Books ed., New York, 1971, p. 217.

so powerful an impression on the animal frame that is so destitute of all injurious properties. It seems almost incapable of abuse, for however great the excitement produced by it, this stimulant prevents that excitement subsiding so suddenly as to induce any great derangement of the equilibrium of the circulation. It produces the most powerful impression on the surface yet never draws a blister; on the stomach, yet never weakens its tone. It is so diffusive in its character that it never produces any local lesion or induces permanent inflammation.

Capsicum may be used topically in many ways. Poultices of it can be applied to relieve the pains of rheumatism and neuritis. Plasters of it may be more effective than mustard plasters for congestion of the chest or muscle pains. Thick pastes of red pepper may be applied directly to the tenderest skin without ill effect, say the books, although the sensation will be intense. Heavy sprinklings of chili in the socks will help cold toes and feet. I know many people who gargle with capsicum to treat sore throats and say it is beneficial. Oil of capsicum will anesthetize and sterilize tooth cavities and may relieve toothache for months.

For internal use, powdered chili may be taken in hot water as a tea or swallowed in capsules. The dose, according to herbalists, is as much as one can tolerate. Large doses of red pepper are recommended for the treatment of alcoholic gastritis and ulcers, a prescription that would undoubtedly appall the average internist. Taken internally, chili is said to stimulate the digestive organs beneficially, purify the blood, tone the liver, and clear the respiratory passages.

The true chili lover may be aware of these medicinal properties but the motive for his passion lies elsewhere. It is the immediate effect of capsicum in the mouth that endears it to so many people -- and repels so many others. A large dose of chili causes an intense sensation of burning that spreads up the nose, causing tearing from the eyes and nasal secretion. It is an excellent way

of clearing the sinuses. The sensation in the mouth may become so strong that one cannot think about anything else for a few minutes. Capsicum also stimulates the flow of perspiration, an effect that may be welcome in a hot climate. Together these actions give a proper rush, and it is certainly this rush that the chili lover seeks.

Now the experience of a chili lover is different from that of a chili hater. The chili hater suffers actual pain and goes to great trouble to combat the sensation in his mouth before trying another bite. Finally, after repeated attempts, all equally painful, he excuses himself, saying he is not a masochist. Neither, of course, is the chili lover. He knows that pain may be transformed into a friendly sensation whose strength can go into making him high. The secret of this trick lies in perceiving that the sensation follows the form of a wave: it builds to a terrifying peak, then subsides, leaving the body completely unharmed. Chili eating is painful when one has to go from the trough of the wave to the crest over and over again. Familiarity with the sensation makes it possible to eat chili at a rate that keeps the intensity constant. One is then able to glide along on the strong stimulation, experiencing it as something between pleasure and pain that enforces concentration and brings about a high state of consciousness. Perhaps this technique might be called "mouth surfing."

With practice, faith, and the frequent company of capsicum lovers, one can develop quickly into a first-rate chili eater, learning to appreciate the more pungent varieties in ever increasing doses. "But that is an addiction," the chili hater will exclaim with contempt. I suppose it is possible to become dependent on chillies, as on anything that can provide a high. Santha Rama Rau in her book, The Cooking of India (2), recounts the story of

an Indian friend who was traveling from India to

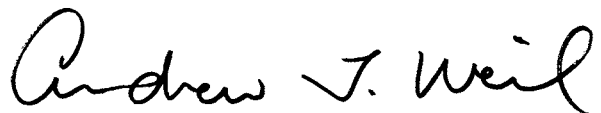
(2) Time-Life Books, New York, 1969, p. 95

the United States. She stopped off at the London airport, and while there she met a girl from Andhra in South India. The girl was on her way to the States to join her husband, a graduate student at the University of Pittsburgh. She had been sick for two days at the airport hotel with an upset stomach, brought on, she explained, by the blandness of the food. Everything was like eating chalk, she said. She ordered an omelet for breakfast and complained that it had no taste. My friend asked the waiter to bring a bottle of Tabasco in a hurry, and poured three quarters of it on the omelet. That was better, the girl said, but it still was not hot enough. So my friend asked the waiter for some peppers. He brought a bottle, and she dumped 14 to 16 red-hot South American peppers on top of the omelet. The girl's eyes lit up when she tasted it. "Ah, Bhenji" (sister), she said with relief, "Now I have come to life!"

I find that my desire to eat chili is cyclic. For a week or so I may eat it three times a day, adding it with pleasure to many dishes and enjoying a really intense chili rush at least once each day. Then I will go without it for a while. Even when I am eating it in quantity, my enjoyment of bland foods is undiminished. And when I start in again I do not have to go through a period of adaptation. My chili tolerance now seems to be permanent.

Just as I was helped in learning to be a chili lover by spending time around masters of the art, I am now able to help others. I have guided several persons from the initial stages of mouth burning to intermediate and advanced levels of chili eating and am always gratified to watch them discover the joys of this practice and marvel at their new-found abilities. It is always uplifting to conquer something that once seemed unattainable. And it is especially meaningful to see that by a change of mental attitude, perseverance, and openness to new experience one can transform the external world, even to the extent that something previously appearing painful and injurious can become pleasurable and beneficial.

Sincerely yours,

A handwritten signature in cursive script that reads "Andrew T. Weil". The signature is written in dark ink and is centered on the page.

Andrew T. Weil

(Further information on chilies may be found in Charles B. Heiser, Jr., Nightshades: The Paradoxical Plants, W.H. Freeman & Co., San Francisco, 1969.)

Received in New York on March 31, 1975.