

What is a Savanna?

Edited remarks by Gerould Wilhelm

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The characteristics and limitations of language in the formulation of thoughts seem to me to be a powerfully important aspect in understanding the nature of our landscapes. One of the more important aspects of the use of language, particularly in trying to understand living landscapes, is how oral and written languages differ in their impact on communication. We users of a written language are constantly driven to arrange limits or borders on almost all things, because written words have limits or borders, with mandated hard and fast definitions. Consequently, our understanding of natural systems are constituted by the compilation of piles of facts and figures, models with dimensions, and places with edges. Understandings borne of unwritten languages can make it easier to see the circles or cycles of nature, easier to comprehend the infinities and paradoxes. Indeed, users of oral languages can be confounded by lines and borders, and tend to see them as interruptive of understanding. Nature itself is poorly described by the reduction of its essential aspects and interlinks to lines and borders.

Bearing in mind that English and German are in the same language class, consider that there were no fewer than 26 language classes in North America prior to settlement; Shawnee, Illinois, Miami, Wampanoag, Ottawa, Ojibwe, and Potawatomie, for example, were among many other languages in one class. The diverse manifestations of arboreal development in North America were accommodated nomenclaturally, if you will, by a great diversity of languages. We are attempting to apply the word *Savanna* consistently across the region and the country; we even imagine that such an attempt is within the realm of science.

Having said that, I being a user of a written language, American English, will attempt to visualize the Midwestern timbered landscape from the perspective of both oral and written languages.

The American Heritage Dictionary of the English Language defines *savanna*:

Savanna: "A flat, treeless grassland of tropical or subtropic regions."

Merriam Webster's Collegiate Dictionary:

Savanna: "1: treeless plain esp. in Florida 2: a tropical or subtropical grassland containing scattered trees and drought-resistant undergrowth"

The word *savanna*, originally something like *zavana*, comes to us by way of Spanish, from an Arawakan speaking people, the Taino, from the West Indies, who evidently used a word that sounded like *zavana* to the Spanish. Arawakan is a broad linguistic class spoken by many native peoples of South America. We also get the word *tobacco* from the Arawakan speaking peoples.

It seems like a strange etymology that a word from a language not even spoken in North America would become one of such contention in our attempt to define the timbered terrains of Midwestern North America. It is even stranger that the original meaning of the word was to describe a place that had neither trees nor hills.

Today, the word *savanna*, sometimes spelled *savannah*, has become the default word to categorize those places that seemed different from places like "woods" and "forest", to which English words already

had been applied. Also, words of German extraction, such as *der Wald* or *das Wainland* or *die Waldung* may have seemed too closely translatable to “woods” or “forest”, places for which 18th and 19th century people of the Old World already had too neat a concept to include the kind of woody lands they encountered in prairie America.

The word “prairie” comes to us originally from the Latin *pratum, prati*, meaning plain, and then “prairie” by way of the French. We could just as easily have adopted the French words for our prairie woodlands, like *la foret*, or even *la bois*, or perhaps the Gallic derivative of *silva, silvae*. Then of course, there is Spanish. We certainly have adopted the word *rio* for places with rivers in them. Why not *el bosque*, their word for forest.

Well, one could go on and on with this *ad nauseam*, of course, and at a rational level it would not really matter except that we have now attempted to attach a “scientific” meaning to a single word that is supposed to apply to all timbered communities that do not evoke the image of an Old World temperate forest. So, it is the view of some that a savanna is a wooded plant community that has less than 30% tree canopy cover. Others say 40%, some others 50%, and so on. Given the acceptance of any particular percentage, what would be called all the other wooded assemblages? Would they be *forest*? Even scientists would have trouble defaulting everything else to “forest” or even among words such as “forest”, “open oak woodlands”, or “barrens”, which, to be consistent, must have their own scientific limits.

I will not get into the theory that savannas are just Eastern deciduous forest aspirants, merely in an “successional” phase. Indeed, the idea that oak and hickory woodlands of the Midwest and the interior highlands are merely arrested stages on their way to the vegetation maximum, Beach-Maple Forest Primeval, ignores biome-level abiotic factors and vegetational history. Why could we not just as easily say that Eastern deciduous forests are senescent phases of Midwestern forests? Either view would be reflective of the regional or dogma centric tendencies of western scientific thinking. The fact the American English evolved from Plymouth and Charleston, westward, rather than from Kentucky City eastward, may be a factor.

In practice, we are most comfortable applying the word forest only to the kinds of woods early 20th century ecologists associated with the eastern United States and the Appalachians. In our area, such woods are best expressed by those closed canopy maple and beech forests that have gone unburned since before ecology became a science, or at least in the memory of anyone living or since the time of early 20th century ecologists. Actually, we have somewhat similar problems in attempting to classify peatlands and certain minerotrophic wetlands as either “bog” or “fen”. Too often it seems that people are led astray by their language into thinking the world is as simplistic as bog or fen, marsh or swamp, woods or forest, black or white. The world is not easily described in black and white, but actually exists in a full spectrum of color, even colors that our eyes cannot see. This business of plant community classification is far more a matter of linguistics than of science.

I thought for a while that maybe the “savanna” question had been resolved when Steve Packard announced several years ago at the Savanna Conference in Bloomington, Illinois, that savannas are those places that are characterized by “trees with big nuts”. In point of fact, it is a definition that would work well enough for me, but, alas, it does not sound “scientific”.

It would seem that written languages work well for the prosaic, for describing bridges and airplanes, but they disintegrate in effectiveness according to the degree an idea includes love, feeling, even history, and the warp and weft of the biotic and abiotic manifestations of a living earth. Hence the evolution of poetry, music, and art. The extent to which the realization that definitions begin to fail is the extent to which one is aware of the subtle differences each acre of earth imparts to its indigenous plants, animals, and even long-term human cultures. These subtle differences are often attributed by indigenous peoples as embodying a local guardian spirit or numen. So, the problem for those of us who are trying to discern the nature of our native vegetation lies in how we can blend disciplined, even dispassionate, assessments of information and data with the apparently numinous aspects of particular places.

I should probably insert here an observation on the nature of science in its contemporary mode as a tool for understanding nature. “Good science”, as it is commonly called today, by its very nature, is poorly constituted to integrate unrepeatable observations, however accurate, anecdotes, and even common sense. Consequently, that kind of science can inform us only of facts that can be re-measured. It cannot inform us about the immeasurable singularities so ubiquitous and interlinked in nature. At the same time, understandings borne largely out of intuition or feelings are just as limited. They are informative only in proportion to the amount of repeatable observation integrated into the formation of the intuitions or feelings. Genuine knowledge and wisdom seem most substantially constituted from a balance of emphasis on both the mythos *and* the logos.

Certainly, in any attempt to understand our Midwestern timbered lands, we must begin with the sure knowledge that the words of our language are limited, and that it is impractical either to invent an infinite number of them or to make their use so broad as to have little meaning. AS we realize this, we are chastened by dogmatic declarations as to the applications of such words as savanna or forest and are accordingly comfortable in our ability to communicate with one another on a general level. Rather than being enslaved to the number one good definition of “savanna”, we can free ourselves to examine the arboreal manifestations of a particular place.

At the end of the day, however, we need to back off a step and appreciate that, with respect to the so-called savanna, we are focusing on a biological aspect of the landscape that is both large and easily identified: trees. In fact, the size and conspicuousness of trees belies the fact that there may be and, probably are, other perhaps less romantic biological aspects that are as informative, or even more so, about Midwestern timbered lands than trees, namely the grasses and sedges, lichens, kinds of beetles, or kinds of birds.

Of course, the big question for most of us is: What is the optimum vegetational development likely to be in the place that I am managing? Which assemblages of plants and animals sustained the highest native biodiversity and supported local *natural* processes? And: What is natural?

I had an opportunity a couple of years ago to visit Walpole Island, Ontario, which the native people there call *Mnisenh*; it is also called *Pkejwenong* (place where the waters divide). *Pkejwenong* is a large delta island in the St. Clair River, whereupon there resides the nishnaabeg of three remnant tribes: *Jibwe* (Ojibwa), *Daawaa* (Ottawa), and *Boodewaadmii* (Potawatomie). All of these people speak languages of the Algonquian class. Other tribes whose languages are of the Algonquian family include the Shawnee, Miami, Illinois, Peoria, Piankashaw, Sauk, Mesquakie, Kickapoo, Menominee, and Cree. For thousands of years the languages spoken in the Midwest were probably largely Algonquian in their sounds. Words that sound something like Mississippi, Muskingum, Maumee, and Michigan: Tecumse, Chaubne, Michiqueniqua, and Wehepehyerhesenwa. Notice that labial consonants are common; the lips touch. Listen to words derived from Iroquoian tongues: Onondaga, Ticonderoga, Huron, Oneida, and Cayuga. The lips do not move very often and rarely meet.

During that day on Pkejwenong, I was privileged to be able to speak with Reta Sands, a Jibwe woman, who one day, I am sure, will be a tribal elder. She speaks the Jibwe tongue, and knows many of the ancient stories and songs of her people. It is well documented that, Walpole Island contains perhaps the finest and largest lake plain “savannas” in the Midwest. The people of the Walpole Island have been firing it annually, as per tribal tradition, from time beyond mind. The treed places in the island are many and varied, with canopy covers that consist of singles trees per acre to closed canopy; certainly a dizzying array of “canopy closures.” In almost all instances, the floristic composition is amazingly rich, with readily apparent species that flower throughout the growing season. On a single field trip in August, I recorded 248 native species! Actually, more than 800 species of vascular plants, 97 considered rare in Ontario, are known from the island; a total of 146 species of birds have been recorded as breeding or potentially breeding there, 28 of which are considered rare in Ontario.

Listen to the ancient sounds of the Algonquian words Reta spoke when I asked her about this plant and that: mshkode-miizhmizh (Red Oak), hgaakmizh (Bur Oak), zhiigmewanzh (Red maple). These are the

sounds that filled the air over our lands for thousands of years. Words like “prairie” and “savanna” suddenly sound kind of foreign and inappropriate. Their roots did not grow here.

In my view there are some key differences between words that are passed on to the next generation orally, and those that are passed on as written entities. I think there are two important differences. First, the very nature of the words, and second, the manner or context in which they are passed along.

With respect to the first difference, I am reminded on an anecdote from the life of Tecumpse, the great Kispokote leader of the Shawnee people. One of Tecumpsc’s younger brothers, Lowalowethica, later to become Tengskwetawa (Open Door – The Prophet), was fascinated by the books what white settlers were carrying down the Ohio River. Lowalowethica pointed out to Tecumpse that these white men could tell what another one said by simply looking at marks on paper. This interested Tecumpse a great deal, and may have been one reason he later befriended a literate white man named Galloway, who built his farm in the place where Tecumpse had grown up.

When Tecumpse showed his older brother, Chick(th)sika, these words, Chicksika was appalled! Already annoyed and concerned about these bewildering whites, Chicksika asked “How can you trap a word out of the air and make it always mean the same thing?” It has always been hard for whites to translate Indian discourse into written languages. It seems to come out poetically, what we might interpret as flowery and filled with metaphors. Spoken words were nuanced with timbre in the voice, facial expressions, and other animated coincident behavior. The strength or nature of the words in part were attached to the speaker and his reputation. Chicksika pointed out that one cannot look into the eyes of the writer to see if he had been listening to bad birds, and that anyone could read the words even if the elder knows they are not ready for them. To him, this explained why the White Man had such inexplicable, even dreadful behaviors with respect to the land and the Shawnee.

Written word, in contrast, must stand alone, without context other than the recorded circumscriptions of scholars of the language. In prosaic discourse, the word has a meaning that practitioners of written words attempt to replicate consistently with each iteration, in a sense to quantify them scientifically. Only poets, singers, and painters can escape the hide-bound limits of written discourse, while we ecologists feel compelled to define “savanna” quantitatively, once and for all, and preferably for all places.

Another difference between oral and written tradition is that in the oral tradition, the young ones learn words and ideas only from elders, when the elders think they are ready to understand. On the other hand, written words and ideas are available to anyone with a knowledge of phonics, irrespective of their cultural development or maturity, and commonly with little or no knowledge of the character or reputation of the writer.

Let us go back to Walpole Island, Pkejwenong. It soon occurred to me that Reta would have words that applied not only to individual plants, but to plant communities as well, so I decided to ask her: “What is your word for prairie?”

“Well, you must know that one of our words for fire is *ishkode*. Our word for the prairie is *mshkode*, which means: the burned over bare land.” She moved her extended arm, palm down, in a flat arc before her.

Intrigued, and acutely aware of the current controversy over “what a savanna was”, I pointed to the place where trees were, and asked, “What do you call that over there, where the trees are?”

“We call that *mtigwaaki*, our word for forest.”

My initial reaction was one of disappointment. For here was an area dominated by a variety of trees, characterized by a forb-rich, graminoid ground cover, that burned annually, and she had seemed to announce that it was merely a “forest”. I do not actually know what I had expected her to say. Maybe

something that translated into “the burned place with trees that bear big nuts.” It would have been more romantic and would have vindicated Steve Packard!

Slightly crestfallen, I queried her further, still deeply interested generally in the linguistic connection between people of long local inhabitancy and their land. At the end of the day, back in the heart of the town, behind some buildings, I noticed a small tract of unburned woodland, grown up underneath, dark-just like a contemporary Midwestern “forest”. It looked so different from the rest of the island. Almost as an afterthought, I asked Reta, “What do you call that?” I feared she would reproach me for inattentiveness and reiterate merely that it was *mtigwaaki*.

Instead, her countenance changes; she shivered involuntarily. “Oh!” she said, becoming a little agitated. “That we call the *goodaakwak*! I learned that word from a song as a young girl. It means a very frightening place. But there is a word even more terrifying than *goodaakwak*, and that is *aakwaagwak*, which is the edge of the *goodaakwak*.” I later looked these words up in Richard Rhodes’ Eastern Ojibwa, Chippewa, Ottawa Dictionary, published in 1985. According to Rhodes, who incidentally consulted Reta extensively in the writing of his dictionary, *mshkode* means “prairie” and *mtigwaaki* means “forest”. Pretty straight forward. But, if I heard her words accurately, *goodaakwak* and *aakwaagwak* were not treated by Rhodes, although he lists *aakwaadak* as meaning to be dangerous. Evidently, these are words that are generally not much in use in common parlance, coming to Reta only as she recollected childhood songs.

So what might they connote? *Good* – when attached to other words usually conveys the idea of being hooked or hung or caught. *Aakwa* – is the root of words signifying danger. Together they could evoke the idea of being tripped up or caught up, or slowed down or hindered by dense undergrowth. Also, people who spend their days in *mshkode* and *mtigwaaki* have small pupils, accustomed to a lot of light, and great depth of field. Certainly they would be unable to see into the *goodaakwak*, where an enemy might lie hidden in ambush.

At all events, *goodaakwak* was a frightening place that one would approach with extreme caution. *Aakwaagwak* is not listed either, but *aakaa*, a very similar sound to me, means, according to Rhodes, “what a hell of a place”.

This has implications for an interpretation of *mtigwaaki*. It is a three-syllable sound that means not only forest, but, by corollary, a safe place, an open place where people can hunt and gather with success and security. What is important here for the contemporary student of Midwestern prairies and woodlands is that these communities probably represent Holocene-landscapes, tended by indigenous peoples, *nishnaabeg*, whose relationship with the land nurtured a great diversity of plants and animals and provided ready availability of clean water, medicine, herbs, and other resources necessary for their sustained inhabitancy.

Whatever one’s view on the apartheid between Nature and Man, it is becoming ever clearer to me that such a distinction is confounding western Man’s ability to see his role in the world and to understand and to comprehend the way the world, upon which he depends, works. Develop arcane, mathematically correct models of savanna and forest if you wish, if that is a goal unto itself. But if we wish to preserve and maintain the biotic and abiotic integrity and genetic diversity of the places with trees, then we must strive just as diligently to restore the Human cultural relationships with any specific landscape that has developed dependencies between the Human stewards of the earth and their charges. We must learn to fear *goodaakwa*, and grow to feel comfortable with and learn to nurture *mtigwaaki*. Our management feedback should be driven by the resurgence and sustainability of local native biodiversity, rather than a *priori* requirement of specific tree density and canopy cover per se. If our management of the local biota, at any particular place, enhances their inhabitancy, then that particular slope or acre will describe for us the appropriate conformation of trees themselves.