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## Vanishing Voices

One language dies every 14 days. By the next century nearly half of the roughly 7,000 languages spoken on Earth will likely disappear, as communities abandon native tongues in favor of English, Mandarin, or Spanish. What is lost when a language goes silent?

By Russ Rymer

TUVAN

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THE COMPASSION  
OF KHOJ ÖZEERI

**One morning** in early fall Andrei Mongush and his parents began preparations for supper, selecting a black-faced, fat-tailed sheep from their flock and rolling it onto its back on a tarp outside their livestock paddock. The Mongush family's home is on the Siberian taiga, at the edge of the endless steppes, just over the horizon from Kyzyl, the capital of the Republic of Tuva, in the Russian Federation. They live near the geographic center of Asia, but linguistically and personally, the family inhabits a borderland, the frontier between progress and tradition. Tuvans are historically nomadic herders, moving their *aal*—an encampment of yurts—and their sheep and cows and reindeer from pasture to pasture as the seasons progress. The elder Mongushes, who have returned to their rural *aal* after working in the city, speak both Tuvan and Russian. Andrei and his wife also speak English, which they are teaching themselves with pieces of paper labeled in English pasted onto seemingly every object in their modern kitchen in Kyzyl. They work as musicians in the Tuvan National Orchestra, an ensemble that uses traditional Tuvan instruments and melodies in symphonic arrangements. Andrei is a master of the most characteristic Tuvan music form: throat singing, or *khöömei*.

When I ask university students in Kyzyl what Tuvan words are untranslatable into English or Russian, they suggest *khöömei*, because the singing is so connected with the Tuvan environment that only a native can understand it, and also *khøj özeeri*, the Tuvan method of killing a sheep. If slaughtering livestock can be seen as part of humans' closeness to animals, *khøj özeeri* represents an unusually intimate version. Reaching through an incision in the sheep's hide, the slaughterer severs a vital artery with his fingers, allowing the animal to quickly slip away without alarm, so peacefully that one must check its eyes to see if it is dead. In the language of the Tuvan people, *khøj özeeri* means not only slaughter but also kindness, humaneness, a ceremony by which a family can kill, skin, and butcher a sheep, salting its hide and preparing its meat and making sausage with the saved blood and cleansed entrails so neatly that the whole thing can be accomplished in two hours (as the Mongushes did this morning) in one's good clothes without spilling a drop of blood. *Khøj özeeri* implies a relationship to animals that is also a measure of a people's character. As one of the students explained, "If a Tuvan killed an animal the way they do in other places"—by means of a gun or knife—"they'd be arrested for brutality."

Tuvan is one of the many small languages of the world. The Earth's population of seven billion people speaks roughly 7,000 languages, a statistic that would seem to offer each living language a healthy one million speakers, if things were equitable. In language, as in life, things aren't. Seventy-eight percent of the world's population speaks the 85 largest languages, while the 3,500 smallest languages share a mere 8.25 million speakers. Thus, while English has 328 million first-language speakers, and Mandarin 845 million, Tuvan speakers in Russia number just 235,000. Within the next century, linguists think, nearly half of the world's current stock of languages may disappear. More than a thousand are listed as critically or severely endangered—teetering on the edge of oblivion.

In an increasingly globalized, connected, homogenized age, languages spoken in remote places are no longer protected by national borders or natural boundaries from the languages that dominate world communication and commerce. The reach of Mandarin and English and Russian and Hindi and Spanish and Arabic extends seemingly to every hamlet, where they compete with Tuvan and Yanomami and Altaic in a house-to-house battle. Parents in tribal villages often encourage their children to move away from the insular language of their forebears and toward languages that will permit greater education and success.

Who can blame them? The arrival of television, with its glamorized global materialism, its luxury-consumption proselytizing, is even more irresistible. Prosperity, it seems, speaks English. One linguist, attempting to define what a language is, famously (and humorously) said that a language is a dialect with an army. He failed to note that some armies are better equipped than others. Today any language with a television station and a currency is in a position to obliterate those without, and so residents of Tuva must speak Russian and Chinese if they hope to engage with the surrounding world. The incursion of dominant Russian into Tuva is evident in the speaking competencies of the generation of Tuvans who grew up in the mid-20th century, when it was the

fashion to speak, read, and write in Russian and not their native tongue.

Yet Tuvan is robust relative to its frailest counterparts, some of which are down to a thousand speakers, or a mere handful, or even one individual. Languages like Wintu, a native tongue in California, or Siletz Dee-ni, in Oregon, or Amurdak, an Aboriginal tongue in Australia's Northern Territory, retain only one or two fluent or semifluent speakers. A last speaker with no one to talk to exists in unspeakable solitude.

Increasingly, as linguists recognize the magnitude of the modern language die-off and rush to catalog and decipher the most vulnerable tongues, they are confronting underlying questions about languages' worth and utility. Does each language have boxed up within it some irreplaceable beneficial knowledge? Are there aspects of cultures that won't survive if they are translated into a dominant language? What unexpected insights are being lost to the world with the collapse of its linguistic variety?

Fortunately, Tuvan is not among the world's endangered languages, but it could have been. Since the breakup of the Soviet Union, the language has stabilized. It now has a well-equipped army—not a television station, yet, or a currency, but a newspaper and a respectable 264,000 total speakers (including some in Mongolia and China). Yet Tofa, a neighboring Siberian language, is down to some 30 speakers. Tuvan's importance to our understanding of disappearing languages lies in another question linguists are struggling to answer: What makes one language succeed while another dwindles or dies?

AKA

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THE RESPECT  
OF MUCROW

**I witnessed** the heartrending cost of broken languages among the Aka people in Palizi, a tiny, rustic hamlet perched on a mountainside in Arunachal Pradesh, India's rugged northeasternmost state. It is reachable by a five-hour drive through palm and hardwood jungles on single-track mountain roads. Its one main street is lined with unpainted board-faced houses set on stilts and roofed with thatch or metal. Villagers grow their own rice, yams, spinach, oranges, and ginger; slaughter their own hogs and goats; and build their own houses. The tribe's isolation has bred a radical self-sufficiency, evidenced in an apparent lack of an Aka word for job, in the sense of salaried labor.

The Aka measure personal wealth in mithan, a breed of Himalayan cattle. A respectable bride price in Palizi, for instance, is expressed as eight mithan. The most cherished Aka possession is the precious *tradzy* necklace—worth two mithan—made from yellow stones from the nearby river, which is passed down to their children. The yellow stones for the *tradzy* necklaces can no longer be found in the river, and so the only way to have a precious necklace is to inherit one.

Speaking Aka—or any language—means immersing oneself in its character and concepts. “I’m seeing the world through the looking glass of this language,” said Father Vijay D’Souza, who was running the Jesuit school in Palizi at the time of my visit. The Society of Jesus established the school in part because it was concerned about the fragility of the Aka language and culture and wanted to support them (though classes are taught in English). D’Souza is from southern India, and his native language is Konkani. When he came to Palizi in 1999 and began speaking Aka, the language transformed him.

“It alters your thinking, your worldview,” he told me one day in his headmaster’s office, as children raced to classes through the corridor outside. One small example: *mucrow*. A similar word in D’Souza’s native language would be an insult, meaning “old man.” In Aka “mucrow” means something more. It is a term of respect, deference, endearment. The Aka might address a woman as *mucrow* to indicate her wisdom in civic affairs, and, says D’Souza, “an Aka wife will call her husband *mucrow*, even when he’s young,” and do so affectionately.

American linguists David Harrison and Greg Anderson have been coming to Arunachal Pradesh to study its languages since 2008. They are among the scores of linguists worldwide engaged in the study of vanishing languages. Some have academic and institutional affiliations (Harrison and Anderson are both connected with National Geographic’s Enduring Voices Project), while others may work for Bible societies that translate Scripture into new tongues. The authoritative index of world languages is *Ethnologue*, maintained by SIL International, a faith-based organization. The researchers’ intent may be hands-off, to record a grammar and lexicon before a language is lost or contaminated, or it may be interventionist, to develop a written accompaniment for the oral language, compile a dictionary, and teach native speakers to write.

Linguists have identified a host of language hotspots (analogous to biodiversity hotspots) that have both a high level of linguistic diversity and a high number of threatened languages. Many of these are in the world’s least reachable, and often least hospitable, places—like Arunachal Pradesh. Aka and its neighboring languages have been protected because Arunachal Pradesh has long been sealed off to outsiders as a restricted border region. Even other Indians are not allowed to cross into the region without federal permission, and so its fragile microcultures have been spared the intrusion of immigrant labor, modernization—and linguists. It has been described as a black hole of linguistics because its incredible language variety remains so little explored.

Much of public life in Palizi is regulated through the repetition of mythological stories used as forceful fables to prescribe behavior. Thus a money dispute can draw a recitation about a spirit whose daughters are eaten by a crocodile, one by one, as they cross the river to bring him dinner in the field. He kills the

crocodile, and a priest promises to bring the last daughter back to life but overcharges so egregiously that the spirit seeks revenge by becoming a piece of ginger that gets stuck in the greedy priest's throat.

Such stories were traditionally told by the elders in a highly formal version of Aka that the young did not yet understand and according to certain rules, among them this: Once an elder begins telling a story, he cannot stop until the story is finished. As with linguistic literacy, disruption is disaster. Yet Aka's young people no longer follow their elders in learning the formal version of the language and the stories that have governed daily life. Even in this remote region, young people are seduced away from their mother tongue by Hindi on the television and English in the schools. Today Aka's speakers number fewer than 2,000, few enough to put it on the endangered list.

One night in Palizi, Harrison, Anderson, an Indian linguist named Ganesh Murmu, and I sat cross-legged around the cooking fire at the home of Pario Nimasow, a 25-year-old teacher at the Jesuit school. A Palizi native, Nimasow loved his Aka culture even as he longed to join the outside world. In his sleeping room in an adjacent hut was a television waiting for the return of electricity, which had been out for many months thanks to a series of landslides and transformer malfunctions. After dinner Nimasow disappeared for a moment and came back with a soiled white cotton cloth, which he unfolded by the flickering light of the cooking fire. Inside was a small collection of ritual items: a tiger's jaw, a python's jaw, the sharp-toothed mandible of a river fish, a quartz crystal, and other objects of a shaman's satchet. This satchet had belonged to Nimasow's father until his death in 1991.

"My father was a priest," Nimasow said, "and his father was a priest." And now? I asked. Was he next in line? Nimasow stared at the talismans and shook his head. He had the kit, but he didn't know the chants; his father had died before passing them on. Without the words, there was no way to bring the artifacts' power to life.

**Linguistics has undergone** two great revolutions in the past 60 years, on seemingly opposite ends of the discipline. In the late 1950s Noam Chomsky theorized that all languages were built on an underlying universal grammar embedded in human genes. A second shift in linguistics— an explosion of interest in small and threatened languages—has focused on the variety of linguistic experience. Field linguists like David Harrison are more interested in the idiosyncrasies that make each language unique and the ways that culture can influence a language's form. As Harrison points out, some 85 percent of languages have yet to be documented. Understanding them can only enrich our comprehension of what is universal to all languages.

Different languages highlight the varieties of human experience, revealing as mutable aspects of life that we tend to think of as settled and universal, such as our experience of time, number, or color. In Tuva, for example, the past is always spoken of as ahead of one, and the future is behind one's back. "We could never say, I'm looking forward to doing something," a Tuvan told me. Indeed, he might say, "I'm looking forward to the day before yesterday." It makes total sense if you think of it in a Tuvan sort of way: If the future were ahead of you, wouldn't it be in plain view?

Smaller languages often retain remnants of number systems that may predate the adoption of the modern world's base-ten counting system. The Pirahã, an Amazonian tribe, appear to have no words for any specific numbers at all but instead get by with relative words such as "few" and "many." The Pirahã's lack of numerical terms suggests that assigning numbers may be an invention of culture rather than an innate part of human cognition. The interpretation of color is similarly varied from language to language. What we think of as the natural spectrum of the rainbow is actually divided up differently in different tongues, with many languages having more or fewer color categories than their neighbors.

Language shapes human experience—our very cognition—as it goes about classifying the world to make sense of the circumstances at hand. Those classifications may be broad—Aka divides the animal kingdom into animals that are eaten and those that are not—or exceedingly fine-tuned. The Todzhu reindeer herders of southern Siberia have an elaborate vocabulary for reindeer; an *iyi düktüg myiyis*, for example, is a castrated former stud in its fourth year.

If Aka, or any language, is supplanted by a new one that's bigger and more universally useful, its death shakes the foundations of the tribe. "Aka is our identity," a villager told me one day as we walked from Palizi down the path that wound past the rice fields to the forests by the river. "Without it, we are the general public." But should the rest of the world mourn too? The question would not be an easy one to frame in Aka, which seems to lack a single term for world. Aka might suggest an answer, though, one embodied in the concept of *mucrow*—a regard for tradition, for long-standing knowledge, for what has come before, a conviction that the venerable and frail have something to teach the callow and the strong that they would be lost without.

SERI

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THE WISDOM OF  
THE HANT IIHA CÔHACOMXOJ

**The ongoing** collapse of the world's biodiversity is more than just an apt metaphor for the crisis of language extinction. The disappearance of a language deprives us of knowledge no less valuable than some future miracle drug that may be lost when a species goes extinct. Small languages, more than large ones, provide keys to unlock the secrets of nature, because their speakers tend to live in proximity to the animals and plants around them, and their talk reflects the distinctions they observe. When small communities abandon their languages and switch to English or Spanish, there is a massive disruption in the transfer of

traditional knowledge across generations—about medicinal plants, food cultivation, irrigation techniques, navigation systems, seasonal calendars.

The Seri people of Mexico were traditionally seminomadic hunter-gatherers living in the western Sonoran Desert near the Gulf of California. Their survival was tied to the traits and behaviors of the species that live in the desert and the sea. An intimate relationship with the plant and animal worlds is a hallmark of the Seris' life and of their language, Cmiique Iitom.

Traditionally the Seris, who refer to themselves as the Comcaac, had no fixed settlements, so their locale of the moment depended on what part of the desert offered the most food, whether the cactus fruit was ripe on the mountainside or the eelgrass was ready to harvest in the bay. Today they reside in two settlements, Punta Chueca and El Desemboque, each a small cove of concrete-block homes set in the vast red, seemingly empty desert beside the gulf. The homes are surrounded by rows of thorny ocotillo canes stuck into the sand, where they've taken root as living fences.

Each day, Armando Torres Cubillas sits in the corner of his open-air, beachside atelier in El Desemboque, his crippled legs curled under him on the sandy ground, carving sea turtles from dark desert ironwood. Occasionally, if he's in the mood, he gazes out over the gulf and eases the artisanship with a song that relates the operatic story of a conversation between the small beach clam *tajitiquixaz* and the mole crab. The verse is typical of songs of the Seri tribe: a celebration of nature, tinged with loss.

The Seris see their language as a defining characteristic, a seed of their identity. One Seri told me of a "local expression" that says everyone has a flower inside, and inside the flower is a word. A Seri elder, Efraín Estrella Romero, told me, "If one child is raised speaking Cmiique Iitom and another speaking Spanish, they will be different people."

When American linguists Edward Moser and Mary Beck Moser came to live with the Seris in 1951 in El Desemboque, the group's fortunes were at a low ebb—outbreaks of measles and influenza had reduced their numbers to a couple hundred. It was a propitious time for the researchers, though, because the group's culture hadn't yet been co-opted by the majority culture surrounding it. Mary Moser served the tribe as nurse and midwife. After many births, per custom, the families gave her a dried piece of their infants' umbilical cords, which Mary kept protected in a "belly button pot." They also gave her their long, eight-plait braids, markers of Indian identity that the men felt compelled to chop off when they traveled to Mexican towns. The braids were like cultural umbilical cords, severed connections between what was old and what was new, evidence of the broken link.

The Mosers had a daughter, Cathy, who grew up among the Seris in El Desemboque and became a graphic artist and ethnographer. She and her husband, Steve Marlett, a linguist with SIL International and the University of North Dakota, have continued the Mosers' study of the Seri language. Today the community has rebounded to somewhere between 650 and 1,000 speakers. They have managed to hang on to their language, thanks in part to their hostility to the majority culture of Mexico. Steve Marlett diplomatically refers to this in one academic paper as "the general lack of cultural empathy between the Seri population and the Spanish-speaking population." In 1773 they killed a priest who tried to establish a mission. The Vatican did not send a follow-up, and the tribe was never Catholicized.

The Seris maintain to this day a proud suspicion of outsiders—and a disdain for unshared individual wealth. "When the Seris become rich, they will cease to exist" is a Seri saying. Having been nomadic, they tend to regard possessions as burdens. Traditionally, when a Seri died, he was buried with his few personal possessions. Nothing was passed down to relatives except stories, songs, legends, instructions.

What modern luxuries the Seris have adopted are imported without their Spanish names. Automobiles, for instance, have provoked a flurry of new words. A Seri car muffler is called *ihisaxim an hant yaait*, or into which the breathing descends, and the Seri term for distributor cap associates it with an electric ray that swims in the Gulf of California and gives you a shock. Such words are like ocotillo canes stuck into the sand: The Cmiique Iitom lexicon is alive, and as it grows, it creates a living fence around the culture.

Sitting in the shade of an awning in front of his house, René Montaña told me stories of an ancient race of giants who could step over the sea from their home on Tiburon Island to the mainland in a single stride. He told me of *hant iha cōhacmxoj*, those who have been told about Earth's possessions, all ancient things. "To be told" entails an injunction: Pass it on. Thanks to that, we have all become inheritors of the knowledge enshrined within Cmiique Iitom. Folk sayings and often even single words encase centuries of close observation of species that visiting scientists have only begun to study in recent decades.

Cmiique Iitom has terms for more than 300 desert plants, and its names for animals reveal behaviors that scientists once considered farfetched. The Seri word for harvesting eelgrass clued scientists in to the sea grass's nutritional merits. (Its protein content is about the same as wheat's.) The Seris call one sea turtle *moosni hant cooit*, or green turtle that descends, for its habit of hibernating on the floor of the sea, where the traditional fishermen used to harpoon it. "We were skeptical when we first learned from the Seri Indians of Sonora, Mexico, that some *Chelonia* are partially buried on the sea floor during the colder months," stated a 1976 paper in *Science* documenting the behavior. "However, the Seris have proved to be highly reliable informants." The Seris enjoyed eating sea turtles but not leatherbacks, for a simple reason. Leatherbacks, they say, understand their language and are Seri themselves. In 2005 the Seri name for shark, *hacat*, became the official name for a newly discovered species of smooth-hound shark, *Mustelus hacat*. Newly discovered by modern

scientists, that is—the Seris had been aware of them for years.

The Seri language is what linguists call an isolate, though a better term might be “sole survivor.” “The Seris are a window into a lost world of gulf peoples,” Steve Marlett says, referring to the extensive family of potentially linguistically linked groups who once inhabited both coasts of the Gulf of California. “Many others are gone,” he says, and worse, gone before they could be documented. One remaining key to the nearly vanished cultures is Cmiique Iitom.

**One way to preserve** a language is to enshrine it in writing and compile a dictionary. Linguists both love and fear the prospect of inventing scripts for languages that are usually verbal only. Fear because the very idea of an alphabet changes the language the alphabet is meant to preserve and converts the linguist from observer to activist. David Harrison and Greg Anderson compiled the first Tuvan-English dictionary and are proud of the excitement the volume elicited from native speakers. Steve and Cathy Marlett worked until 2005 finishing a Cmiique Iitom dictionary begun by her parents in 1951. Steve remembers the day René Montaña asked, “Can I show you how I write?” and demonstrated a way of dividing words that had not occurred to the linguist before. The revelation meant revising years of work. But Marlett was delighted, because the project was enlisting native Seri speakers into diagnosing and defining their own language.

The cataloging of vocabulary and pronunciation and syntax that field linguists do in remote outposts helps keep a language alive. But saving a language is not something linguists can accomplish, because salvation must come from within. The answer may lie in something Harrison and Anderson witnessed in Palizi one day, when a villager in his early 20s came with a friend to perform a song for them. Palizi is far removed from pervasive U.S. culture, so it was something of a surprise to the two linguists when the teenagers launched into a full-bore, L.A.-style rap song complete with gang hand gestures and head bobbing and attitude, a pitch-perfect rendition of an American street art, with one refinement: They were rapping in Aka.

Were the linguists dismayed? I asked. To the contrary, Harrison said. “These kids were fluent in Hindi and English, but they chose to rap in a language they share with only a couple thousand people.” Linguistic co-optation and absorption can work both ways, with the small language sometimes acting as the imperialist. “The one thing that’s necessary for the revival of a language,” Father D’Souza told me one day, “is pride.”

Against the erosion of language stands an ineffable quality that can’t be instilled from without: someone’s insistence on rapping in Aka, on singing in Tuvan, on writing in the recently orthographized Cmiique Iitom. The Mosers’ and Marletts’ dictionary initiative has given birth to a new profession in Seriland: scribe. Several booklets have been authored by Seris. The Marletts hope the number of volumes will reach 40, one threshold, it is believed, for enticing people to maintain literacy in a language (though some put the number much higher).

The interest is already there. The Marletts had a regular visitor when they were living in El Desemboque, a young boy who would come each day to pore over a Cmiique Iitom booklet. One day he arrived, and the Marletts explained they’d lent it to someone else. “He just burst into uncontrollable tears,” Steve remembers.

The spread of global culture is unstoppable. Kyzyl, a capital city that never had a railroad connect it to the rest of Russia, will get one in the next few years. In El Desemboque power lines have been run through the desert to drive an electric pump for a municipal well. And in Arunachal Pradesh a new hydroelectric dam has been completed, ensuring the village of Palizi better access to electricity, refrigeration, and television.

To be involved in the plight of vanishing languages, even just as a journalist, is to contemplate the fragility of tribal life. Since my visits over the past two years to Palizi and Kyzyl and Seriland, Efraín Estrella died of pancreatitis, and young Pario Nimasow, who unwrapped his father’s shaman’s kit for me and wondered what its contents might mean, was killed in a landslide. A week after I wrote the paragraph describing Armando Torres’s daily singing, I received an email from Cathy Marlett. “Sad news,” its subject line read. Torres had died of a heart attack at 67, in his place by the beach in El Desemboque.

Their mortality is a reminder of the mortality of their cultures, an intimation that with each speaker’s death another vital artery has been severed. Against that—against the possibility that their language could slip away without alarm or notice—stands a proud perseverance, a reverence for the old, an awareness that in important ways a key to our future lies behind us. That, and an insistence that the tongues least spoken still have much to say.

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Russ Rymer is the author of *Genie: A Scientific Tragedy*, the story of an abused child whose case helped scientists study the acquisition of language. Photographer Lynn Johnson’s last feature for the magazine was on the [trail of the Apostles](#).

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