









his led to Korczak being approached by local North American Indian Lakota leader Henry Standing Bear - a cousin of the famous Native American chief Crazy Horse, who fought in the Battle of the Little Bighorn. Standing Bear wanted the sculptor to create a Native American equivalent to Mount Rushmore, only bigger. Over 150 metres bigger.

"He said yes, and once he began he never did anything else for the rest of his life," his wife Ruth tells me. Korczak died in 1982 after 35 years of ceaseless effort on the sculpture. But she carries on with the mammoth task undaunted.

"Absolutely. Korczak could sell you the Brooklyn Bridge. He didn't have a doubt in the world [it would be done] and I don't have a doubt now."

## **ACHIEVE THE DREAM**

In the Black Hills of South Dakota, just 27 kilometres down the road from Mount Rushmore, the Ziolkowski family - now in its fourth generation of involvement with the project - are still working on their dream. In perhaps the most audacious piece of craftsmanship ever attempted, they are carving the



From some distance away, the sculpture (top) looks just like any other piece of in-progress artwork. Then the viewer notices the tiny figures beside it and realises they're people; the scale of the project finally sinks in. This colossus has kept Ruth Ziolkowski (above) and her family busy for most of her life.

world's largest statue out of the granite of Thunderhead Mountain. With a planned height of 170 metres, it will depict Crazy Horse - and his horse too.

The Lakota who wanted the carving
- "commissioned isn't the right word,"
remembers Ruth - had a dream, but had
nothing to contribute to its creation. "In
those days Indian people still starved to
death on the reservation," she says. All
they had was the dream, but it was one
Korczak shared.

"I was only 20 when I got here," Ruth recalls. She first visited South Dakota in 1947 to help get the project off the ground - building a road in, and a log cabin to live in. "Korczak picked me up in the railroad depot in Rapid City. To get here and see the mountain, with absolutely nothing done, no road coming in, no electricity, no water ... Korczak always said to me it was as close to pioneering as you could get in this country," Ruth says.

She never left. They married in 1950 and raised 10 children in this wilderness, living a self-sufficient lifestyle by selling timber and milk, and earning the occasional sculptural commission.

So how do you start carving a mountain? You make a model - Korczak sculpted several, from the 1/300th he started with in 1946 to a more sophisticated 1/34th model in the 1960s. After that, you measure the mountain in relation to the model; then you remove the rock that doesn't fit in order to get close to the surface you want to carve. Easy.

But that's a lot of rock - some sources estimate 7.4 million tonnes by the time he died. Initially, the job must have

seemed more like mining than sculpting. Korczak started out by bringing a drill up the 741 steps to the top of the mountain, then pounding out holes for dynamite blasts by hand. For years, decades even, there was nothing to see.

"But it was the little things that made a difference," Ruth remembers. "Like when he started the first V-shape right in front of Crazy Horse's forehead." Other small marks of progress included getting the stairs built up the mountain and finding a compressor for the rock drills. "Even though you couldn't see the difference [on the mountain] you felt in your heart that you'd made progress," she says.



Monique (above) converts scale models to reality, a vital role. The Welcome Centre offers a glimpse into the past (middle) and future (top right).



## **KEEPING THE FAITH**

The 1948 site dedication was attended by five of the nine survivors of Little Bighorn, but attitudes have changed. Now, some Native Americans stridently oppose the carving, saying it is a desecration of nature and that Crazy Horse always refused to be photographed. But Korczak's widow Ruth perseveres with his vision.

"It doesn't matter whether it's Native Americans, Caucasians or who it is, you never please everyone," she says. "But there has never been a doubt it should be done." One curious fact came to light later: Korczak's birthday (September 6) was the same as the day Crazy Horse died. "[Standing Bear] figured Crazy Horse's spirit hovered around the world waiting for Korczak to be born," says Ruth.

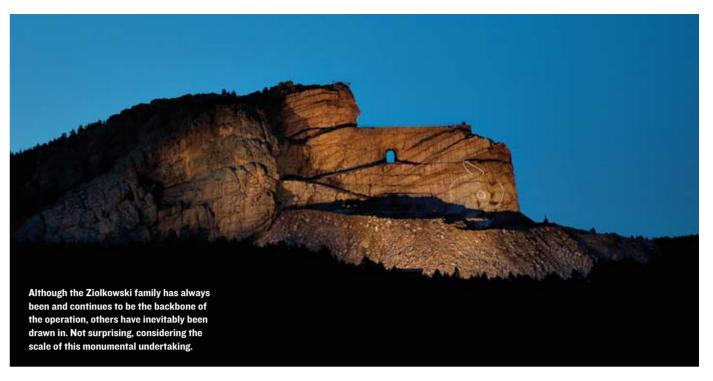
CHIP OFF THE OLD BLOCK 

© 171 m high, 195 m long: Size of sculpture if finished according to Korczak's plans.

Approx. 67 m: Height of horse's head when completed.

Approx. 18 m: Height of faces on Mount Rushmore.

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Things would have gone much faster had it not been for Korczak's dogged refusal to accept state or federal funding. "Working at Rushmore he learned a lot of things from Gutzon Borglum, whom he admired very much," Ruth says. "He saw him have to go to Washington and beg the politicians for four weeks at a time to get money." Korczak decided he couldn't do that and went ahead alone. Now, however, fundraising is a sophisticated effort - many companies make donations of support and equipment.

A recent US\$5 million donationmatching gift from local businessman T. Denny Sanford has made a huge difference to the project's pace and ambitions. But Ruth maintains that the stance on government "makes more sense today than it ever did".

## STEP BY STEP

The technology involved in the carving of Crazy Horse has moved on a lot since 1948 too. Back then it was just Korczak with a single drill. Today a 10-man team, led by Korczak's son Casimir, utilises hydraulic drills, mounted on tracks, which use carbide steel bits to drill holes at a rate of up to 3 metres per minute. Dynamite is little used these days; instead, packs of high-explosive gel, which are sometimes described as sausage-like, are linked by a detonating cord and the explosion set off by computerised detonators.

On the surveying side, Korczak's original combination of tape measures, a theodolite and good old-fashioned artistic judgement have been replaced by a survey control system called a total station. The total station uses an infrared beam to measure distances up to several hundred metres with accuracy to the nearest 0.3 millimetres. Laser scanning is used to map the mountain into 15 million distinct points, allowing digital models to be built using engineering computers.

His daughter Monique, who was instrumental in the carving of the face, is closely involved here. "We scanned the mountain, scanned the model and put the two together to see how it best fits

● 27 m: Height of completed face of Crazy Horse.

● 621 m: Length of pipeline needed to get compressed air to the mountaintop for the jackhammer.



the rock," she explains in a cavernous studio dominated by a gigantic mockup of the finished carving. "Then you look at where you might have to bolt, where the seam lines are, understanding the rock mass. When you take the rock out from underneath it you want to make sure it's going to stay there."

Crazy Horse's face itself took 11 years of work before its dedication in 1998. Opening just one eye took four months, 550 bore holes and 396 metres of drilling, with a range of techniques and tools from hammers and chisels, and feathers and wedges, to a powerful and precise jet torch to finish the surface.

One job that hasn't changed much is mucking, or removing the blasted rock: a blast today can produce 1,000 to 4,000 tonnes of rock fragments that range from gravel to 10-tonne boulders, which must be cleared out of the way with bulldozers. If this was all shipped out, it would take 200 truck loads to clear the rock from every blast, so instead the material stays on-site. It is gathered in a vast rubble field beneath

the carving that will eventually hold a special reflective pool at the base of the mountain.

Ruth's entire adult life has been spent on the mountain and it has drawn in most of their children too. Seven of Korczak and Ruth's 10 children still work there, and the other three live in the area. Even Korczak is buried there, near the base of the mountain. He built his own coffin - with a brass knocker on the tomb door. The work goes on.

There is one question everyone asks Ruth. "People say: well, when's it going to be finished?" she says with a smile. "Well, in the first place, what's 'it'? In the second place, what's 'finished'?" She points out that there is now a head, and the face is finished. "But how are you going to finish the rest, the horse's hide? If we had to sit down and answer all these things before we started, we'd still be talking about it."

But will we see the horse's head in our own lifetime? "Oh I think so," says Ruth, smiling broadly and with bright eyes. "I want to see it." ■

AN AUDACIOUS **CRAFTSMANSHIF** - CARVING THE LARGEST STATUE IN THE WORLD OUT **OF A MOUNTAIN** 

It took II years and four generations to bring Crazy Horse's face out in all its glory. Who knows how much longer it will take for the rest of his body plus his horse to emerge?