## Ouestion Machine

## BY MICHAEL NAIMARK

A COUPLE OF YEARS AGO, on a sudden impulse, I disappeared for one week to visit the Ifugao culture deep in the northern mountains of the Philippines. At the time I went, it was easy for an American to visit the Philippines; no visa for short stays, no shots required in the springtime, relatively cheap airfare, and plenty of local bus transportation. Two sleepless days after arriving in Manila I was at the hut of Dionicio Damoyan Immatong, a 66-year-old Ifugao shaman.

The Ifugao was nominated by several anthropologist friends as the culture most extreme from ours where many of the people speak English. This minority group is best known for their rice terraces and wood carvings. Their language is oral, not written: prayer, poetry, music, and legend are passed down through word of mouth. Until quite recently, the Ifugao were headhunters. I went with a letter of introduction to Dionicio, and stayed with him and his family.

I had been spending much time thinking and conducting research on new media technologies that are probably inevitable — a machine that will understand spoken language, for one example. You can talk to this machine; it will speak back, or perhaps show you some pictures, text, or movies. It's the type of machine that a child could walk around with on a beach, point at something, and ask "What's this?"

But as the technologies making all this possible become powerful they also become invisible. Our culture has become locked into a particular way of thinking and accepting what is natural and what is real. I had come to the Ifugao to get a Second Opinion. By the light of a single candle in Dionicio's hut we sat, passing the betel nut, and discussing information and media. "Where is your information and how do you get it?" We talked about information from books, from the land, from newspapers and from shamans.

Dionicio and his family live in a compound of two huts, a short walk up from the main town of Banaue. We would get up at dawn, and Dionicio would lead me on tours of the area. He would describe why I was there to other Ifugao — to learn where they go for answers, what their other realities are, and what kind of questions they ask. A machine that can answer questions, many Ifugao say, will be a very good thing.

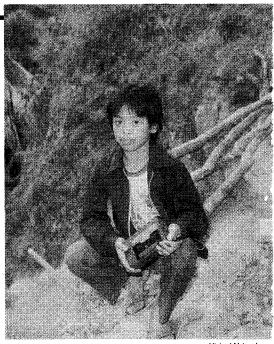
I met Patrick Tundagui when I arrived in Banaue. He is a twelve-year-old Ifugao boy living in the village of Paypayan, a short walk from Banaue. His father teaches in the elementary school and his mother works in the rice terraces. He has two brothers and five sisters; many other relatives live in neighboring homes. Patrick gives tours of the rice terraces to earn money for tuition to the public school. He is in his first year of high school.

I tell Patrick that I'm trying to understand questions and that I would like him to record every question of which he thinks. There are no correct questions, all are OK. I instruct Patrick in how to use the Walkman-type recorder I have brought, and ask him to always record three things: what time it is, where he is, and his question.

After two days, Dionicio and I stop by Patrick's home to listen to his tape so far. We meet the family and listen to the tape. To my surprise, only questions were recorded, no time, no place. The questions were always recorded three at a time. We have had a communication problem. I later sit down alone with Patrick and interview him regarding time and place, as well as some proper names.

Dionicio thinks most of the questions are "pretty good."

Michael Naimark currently works at the Multi-Media Lab at Apple Computer. This research was done while he worked for Atari Computers. -Kevin Kelly



Michael Naimark

(Following is a verbatim transcript from the first two days. The bracketed material is from my notes.)

Where are you staying in the Philippines? When will be your flight back to your country? Did you enjoy your stay here?

[Sat 11:00am home] Where is the bus going? When did the bus arrive here in Banaue? Why did you\* miss the bus?

[\*a particular tourist] Sat 2:30pm Halfway House Lodge]

Where did God appear to Moses? What is the place that Moses did the Ten Plagues? Who created you\*?

[Sat 3:30pm walking home by the school] Where do you find the biggest dam in

the world? When did you\* visit the dam? How did people build the dam? [\*anybody]

[Sun 6:00am near a neighboring house]

Where will you find the eighth wonder of the world?

When did the Ifugao build the rice terraces? Why do tourists keep on coming here to Banaue?

[Sun 6:30am in his room]

Where is the place that the Malay build the rice terraces?

When did the Negritos come to the Philippines?

How did people come to the Philippines in the olden times? [Sun 7:00am viewing rice terraces]



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Where are you\* going tomorrow? What time you\* leave Banaue tomorrow? How can you\* go to Manila without any bus? [\*anybody]

[Sun 7:10am walking down road]

Where is the place that Jesus was born? What time did Jesus call his Apostle? Who created the world? [Sun 7:50am in Bocos village doing an errand]

Where do you find the highest mountain in the Philippines? When did the people know that the high-

est mountain is in the Philippines? Who is the president of the Philippines? [Sun 7:53am Bocos village]

Where is that place that they begin the war before it came to the Philippines? What is the year that Hitler declared war against the Allied power? Who invented the atomic bomb? [Sun 8:30am walking past school]

What country did you come from, Mike? What time you arrive here in the Philippines?

What is your purpose in coming to Banaue? [Sun 8:50am home]

Where do you find the country with four season?

When did the government know that America has four season? How many season in the Philippines? [Sun 9:00am home]

Where do people spend their holidays in Banaue? When do they have holidays?

What do the people do during holidays? [Sun 9:15am near home]

Where do people in Banaue get their food? When do they plant rice here in Banaue? What do the people do during harvest time? [does not remember]

Where is the place that they make the spacecraft?

How many years before they build a spacecraft?

How did the scientists build the spacecraft? [Sun 9:20am coming to market]

Where do you find the most valuable gold? When did the people start to mine for gold? Why they are mining for gold? [Sun 9:25am in market]

Where is that place they have lots of oil? When do people know that oil is inside the ground?

How do people make oil into gas? [Sun 9:30am in Halfway House Lodge]

Where is the country that there are many jungles?

When did they discover that Africa has many jungles?

Why did the foreigners guard the forest? [Sun 9:30am in the Halfway House Restaurant1

Where is the most beautiful rice terrace here in Banaue?

What time do the sun rise in Batad\*? How can you go to Batad?

[\*Batad is 14km away from Banaue] [Sun 9:35am giving tour of rice field]

Where is the best restaurant here in Banaue? What time do the restaurant open?

Why are the people in Banaue are making restaurant?

[Sun 9:40am in Stairway Lodge]

Where is the place that they broadcast time? What time the announcer announce the time?

What is the use of the radio? [Sun 9:42am in Stairway Lodge]

Where do you find the smallest bird? What time do people saw this is smallest bird?

How do people know that this is the smallest bird? [Sun 9:45am home]

Where do you find the biggest waterfall in the world?

What is the year that the person found the biggest waterfall?

How do you know that the waterfall is the biggest?

[Sun 9:50am guiding tour at waterfall]

Where is the original carver came from? What year that people of Banaue begin to carve?

What is the use of the carvings? [Sun 10:20am guiding tour at waterfall]

Where are you\* staying here in Banaue? How many days you\* are staying here? Why are you here in Banaue? [\*a particular tourist] [Sun 10:30am on road]

Where is the most beautiful hotel? What time do you\* sleep at night? What did you\* do before you traveled from one place to another? [\*another particular tourist] [Sun 11:00am in Halfway House Lodge]

Where are you\* staying in California? How many years are you\* before you leave your parents?

What is your problem now? [\*Mikel

[Sun 11:10am outside Halfway House]

Where do we find the biggest ocean? What is the date the navigators found the biggest ocean?

Why do people know that the Pacific Ocean is the biggest? [Sun 11:20am home]

What is the country that they don't make weapons for war because they are punished by the Americans?

What is the time America punished them? How did America punish them? [Sun 11:25am home]

Where is that place who first discovered writing?

When is that year that they discovered writing?

What is the use of writing? |Sun 11:30am outside|