Navajo Pentium Weavers

By Justin McAfee

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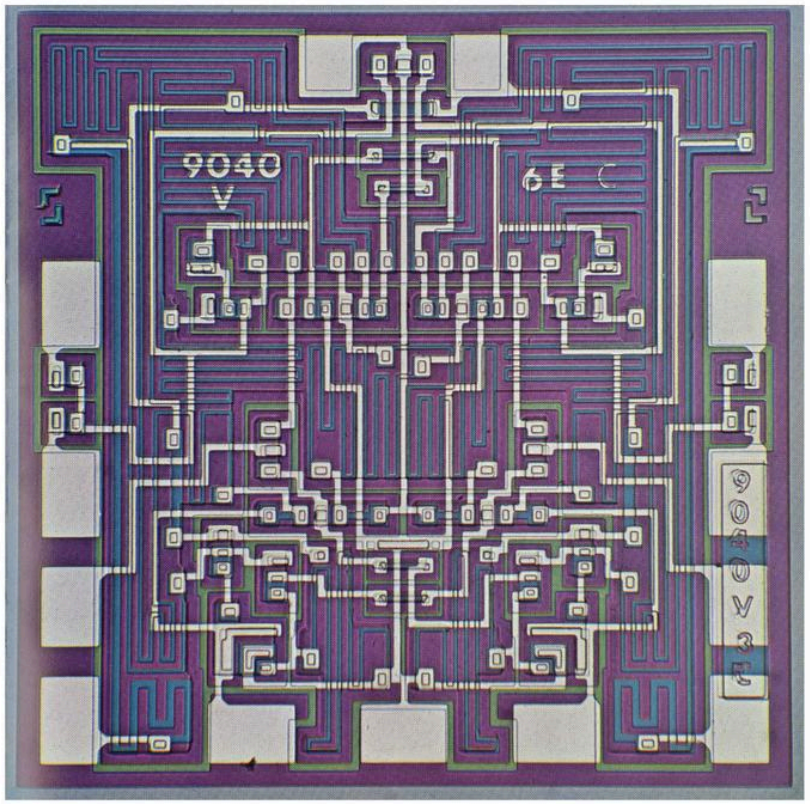
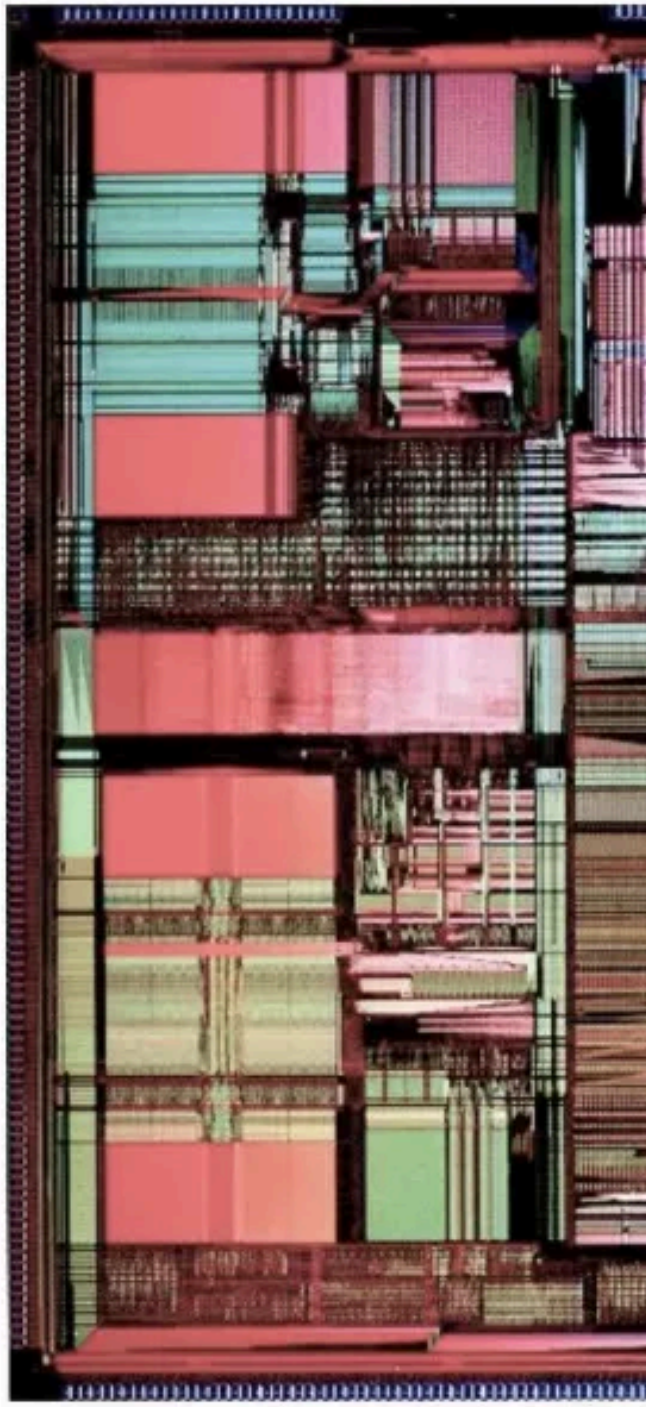


Introduction

Dad, Husband, Preacher, Security and Privacy Enthusiast, Hobby Farmer

Navajo Chip Weaving by Marilou Schultz

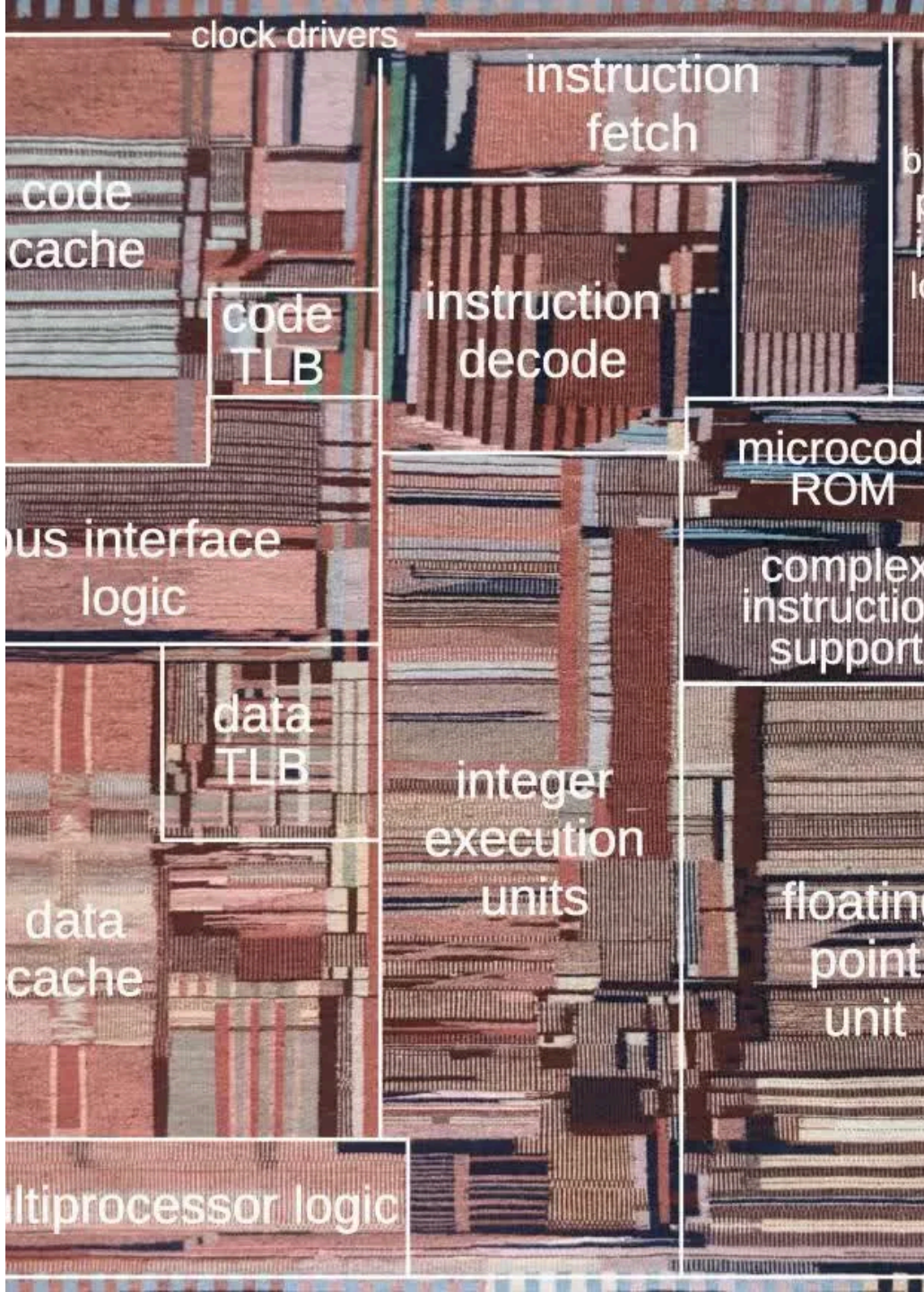
In 1994 Marilou Schultz was hired by Intel to weave a complex Pentium processor pattern into a Navajo blanket. The resulting artwork is now touring the world as part of an example of Navajo textiles.



Why Navajo? Why Chips?

It turns out that Jacquard's Loom and Ada Lovelace aren't the only textilers heavily involved in the history of computing.

As of 1970, over 1200 Navajo women were responsible for the production of some of the most complex Integrated Circuits in the world, circuits that would power missles, rockets, space exploration and the like.



Shockley

But let's rewind and talk about this psycho for a minute. I present, William Shockley, Physicist, Inventor, Eugenecist, and all around nut ball.

Shockley managed Bell Labs research group that discovered transistors and resulted his cohort being awarded the Nobel Prize in 1965.

Fairchild's Traitorous Eight

Given his new found sucess, Shockley forms Shockley Semiconductor Laboratory and begins to collect PhD students like they were Pokemon.

Hiring the future heads of Intel and AMD, including famously Gordon Moore. Ultimately, Shockley's insane management style would drive all eight employees to depart and form Fairchild Semiconductor.

The Navajo Situation

Looking for somewhere convenient to manufacture their semiconductors, Fairchild determined to build in Honk Kong, Maine, Australia, and New Mexico.

The Navajo situation at the time couldn't have been more bleak. Having faced "The Long Walk" only 100 years prior, the society was now 65% unemployed, per-capita income was <$300 month, their were no effective roads, electricity, telephones, water, or health care, and internal politics were tearing the tribe apart.

Shiprock Opened

In 1965, Fairchild opens the Shiprock, NM plant with 50 Navajo workers. This number quickly balloons to 365, then 1200. Less than 30 workers were white, and almost all non-managerial roles were held by women.

Adapt...

But everything isn't sunshine and gumdrops.

- Some Navajo can't speak, read, or write English
- Complex technical words didn't exist in Navajo
- No childcare existed for the employed women
- No modern housing
- No managerial acumen
- No "male" jobs

and Overcome

- Built night schools
- Created technical jargon
- Reduced hiring requirements
- Built homes and daycares
- Created Leadership and Management training programs
- Solicited supply-chain partners to bring "male" jobs

How It Ended

Economic Issues

Despite the overwhelming success of the project, American economic issues in the early 1970s would begin to take its toll on American semiconductor procution. By 1975, Fairchild would have laid off more than 8000 employees.

How It Ended

Terrorism

After laying off 140 employees at Shiprock, the American Indian Movement, a terrorist/activist group would seize the factory. AIM demanded the reinstatement of the 140 Navajo workers. During the seige, Navajo were split over the exploitation of the tribe and the betrayal of Fairchild.

How It Ended

Terrorism

However, AIM workers produced internal documentation from the seized building showing that Fairchild planned to abandon the project when US Government subsidies for the plant ended and move to Korea. Fairchild begin to threaten the complete closure of all Navajo related projects.

Ultimately, the terrorist would vacate the building after a promise of amnesty from tribal authorities and the issuance of a weeks severance to the 140 workers.


Indians Hold N.M. Plant
AIM Outlines Demands
FAIRCHILD
Takeover Blamed On Firm
Police Fight Hundreds At Rock Concert Here
Papich Job Issue Still Not Resolved
'Hagar' Appears Daily
City Library Dedicated
Records of Bilingual Education in Ancient History

Fairchild would dismiss all 500 workers.

MOUNTAIN VIEW, Calif., March 12 (UPO—The Fairchild Camera & Instrument Corporation announced today the closing of its Shiprock, N.M., semiconductor assembly plant, which was seized and held for more than a week by an armed band of Indians last month.

Wilfred J. Corrigan, Fairchild president, said in a statement that, since his company has regained access to the plant on the Navajo reservation, "we have been assessing the damages and evaluating the longterm implications of this seizure."

"After thorough discussion with officials of the Navajo nation—whose efforts we appreciate—Fairchild has concluded that it could not be reasonably assured that future disruptions would not occur," he said.

The plant was seized Feb. 24 in a protest over the layoff of 140 Navajo employes. The invaders returned the facility to the tribal police March 3. Fairchild officials returned to the plant two days later and closed it, saying they would study whether to reopen the facility. A company official said that the plant had employed 473 Navajos.

Additional Reading

- Ken Shriff's Blog: The Pentium as a Navajo weaving
- Indigenous Circuits: Navajo Women and the Racialization of Early Electronic Manufacture
- Broad Band: The Untold Story of the Women Who Made the Internet by Claire Evans
- Hidden Figures by Margot Lee Shetterly

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Sources

- Intel's Navajo Pentium rug is a ridiculously accurate likeness of a '90s CPU
- The Pentium, the Navajo, Fairchild, and Shiprock: a story of high-tech and appropriation by Ken Shirriff
- Indians Vow to Stay In Fairchild Plant:NYT
- Indigenous Circuits
- Fairchild VIEWS Employee Magazine Volume XVI, Number 5, July 1969
- Woven Histories: Textiles and Modern Abstraction
- Plant That Indians Seized Is Now Shut:NYT
- Navajos Occupy Fairchild Plant