Now THAT'S an Egg!

"The Story of the Vegreville Pysanka"

by Heather Jean Glebe

ERRATA

1. The traditional term for Ukrainian Easter egg, *pysanka*, is often mispronounced and misspelled, as it is, regrettably, on the cover of this book. The phonetic pronunciation is *PE-sin-kah*.

2. The plural for *pysanka* is *pysanky*. Unfortunately, the Ukrainian word was accidently spelled *pysanki* on occasion.

The publishers apologize for these mistakes but remind readers that such "first edition" errors often make an important book a collector's item in time!

NOW, THAT'S AN EGG!

THE STORY OF THE VEGREVILLE PYSANKA

By

HEATHER JEAN GLEBE

VEGREVILLE AND DISTRICT CHAMBER OF COMMERCE

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****** TABLE OF CONTENTS ******

FOREWORD

Gifts tend to bring people together. So do disasters.

The Vegreville pysanka project was both a gift and a crisis at the same time, and it did indeed bring people together.

Pysanki are traditionally gifts of great symbolic significance. So was every aspect of the pysanka project. People on both sides of the border gave so generously in their resolve to seeing it through. It was also a constant, excruciating set of circumstances over two years. But this element of crisis was also unifying. It created a committment among all of us working on it, until the project became a cause. It had been our all-consuming passion for so long that when it was finally finished, we suffered post-partum blues!

I am grateful to the community of Vegreville for giving me the opportunity to do this project. To this day I am impressed with how it couldn't have been done without the co-operation of so many people helping me solve the problems of design, fabrication and erection. It was an experience I will certainly never forget.

Ron Resch
Salt Lake City, Utah

****** 1 ******

WOW! WHAT AN EGG!

"Do you want to stop and see the big egg?"

"Big egg?"

My friend Ann glanced across at me. She smiled with a touch of mischief. "You know, the giant Pysanka in Vegreville."

My mind grasped at vague recollections about a huge Ukrainian Easter egg in my dad's hometown, Vegreville. "I think I've heard of it," I said. "Tell me more."

As the turn-off for Vegreville grew closer, Ann gestured out the windshield. "See the sign?" VISIT VEGREVILLE, HOME OF THE THE WORLD'S LARGEST PYSANKA. "I guarantee you've never seen anything like it before!"

I hadn't. It loomed above us, high as a three-storey building. Curves of gleaming bronze, silver and gold swelled into an intense blue prairie sky. I stepped underneath, awed by the egg's immensity. I stared up at the mammoth shape, then shivered. It seemed too big and heavy to be supported by a single post. What if the wind came up. . .would it fall on my head?

As if on cue, a gust swept in. "The egg--it moved!" I shrieked.

Ann laughed. "Yes, it turns in the wind like a weather-vane. Come and read these inscriptions. They'll explain it all to you."

I learned that the Pysanka towers 31 feet from the ground. It is 25.7 feet long and 18.3 feet wide.

It weighs 5,000 pounds, much of it an internal structure of 177 turnbuckle struts. The 2,000-pound aluminum skin includes a good 3,500 pieces. The whole thing is set on a 27,000 pound base.

It took more than 12,000 hours to create. "That's 1,500 eight-hour days!" I gasped. "What an undertaking."

We moved on to the next panel. We studied the picture of a man operating a computer controlled plotter to score and cut aluminum pieces for the egg.

Conceptual and graphic design for this unique memorial was developed by Paul M. Sembaliuk, with the architectural assistance of George Chernenko. The structural material is aluminum, and permaloy hard coat anodized colors of bronze, silver and gold are used in the design.

Ron Resch, a computer scientist at the University of Utah, developed and engineered the physical structure of the PYSANKA. He was assisted at the same University by Edward Sharp, Director of Computer Centre; Robert McDermott, Mathematics and Programming; James Blinn, Programming; William Mason, Structural Analysis; Michael Milochik, Computer Photo Laboratory; Dick Sites, James Yocum, Dieter Sterman, James Mahood, Fred Childs, and Arthur Troutner, Truss Joints Corporation, Boise, Idaho. Traditional designs, motifs and symbols adapted to the computer grid by Paul Sembaliuk give added meaning to the contemporary gigantic egg form.

Ann Wakelin and Heather Jean Glebe under the Vegreville Pysanka (Photo by Robin Wakelin)

"Sounds like a whole team of people had a hand in this project," I commented.

"Right. Including many dedicated volunteers from the community," Ann added. She moved to the next panel. "Look at this list of international firsts!"

INTERNATIONAL FIRSTS

Professor Resch's computer structure and manufacturing techniques represent the

** First mathematical or geometric definition of an egg shape.*

** First practical application of the theory of mathematical curve definition known as B-splines.*

** First architectural shell structure in which the surface completely closes on itself.*

** First authentic egg shape to be built as a structure.*

** First practical realization of an engineering technique which can build any surface form by replication of only two standardized module elements.*

** First architectural structure whose surface geometry requirements are as complex as the aero-dynamic surface definition of an aircraft or missile cone.*

** First architectural structure where both computer-aided design and computer-aided manufacturing techniques are employed to create the structural skin.*

** First architectural structure in which all of the pieces are literally made from the drawing board, i.e., each piece is cut out on a numeric-controlled drafting table.*

** First architectural structure in which every part has an engraved name determined by its relative location in the structure. It can then be completely assembled by unskilled labor with only the aid of a chart.*

"Well, imagine that. In all of history, no one had ever before defined the shape of an ordinary egg? Or ever tried recreating one!" I looked back at the oblong sphere whose shape we so easily take for granted. "But it's not just an egg. It's a beautifully decorated egg. What do all the designs mean?"

Ann directed me to the next panel, PYSANKA SYMBOLISM. We read about the ancient art of egg decorating, the significance of the colours on the big Pysanka, and the symbolic meaning of each part of the

design. "What they did was use this 'egg writing' as a unique means of relaying a message," Ann explained.

"What's the message? Why'd they build a big Pysanka, anyway?'

"To commemorate the centenary of the RCMP in 1974."

I chuckled. "What's a big egg got to do with the Mounties?"

"I'm not really sure," said my friend. "It might tell something here." We turned to another panel written in four languages: English, French, German and Ukrainian.

This Pysanka (Easter egg) symbolizes the harmony, vitality and culture of the community and is dedicated as a tribute to the 100th anniversary of the Royal Canadian Mounted Police who brought peace and security to the largest multicultural settlement in all of Canada.

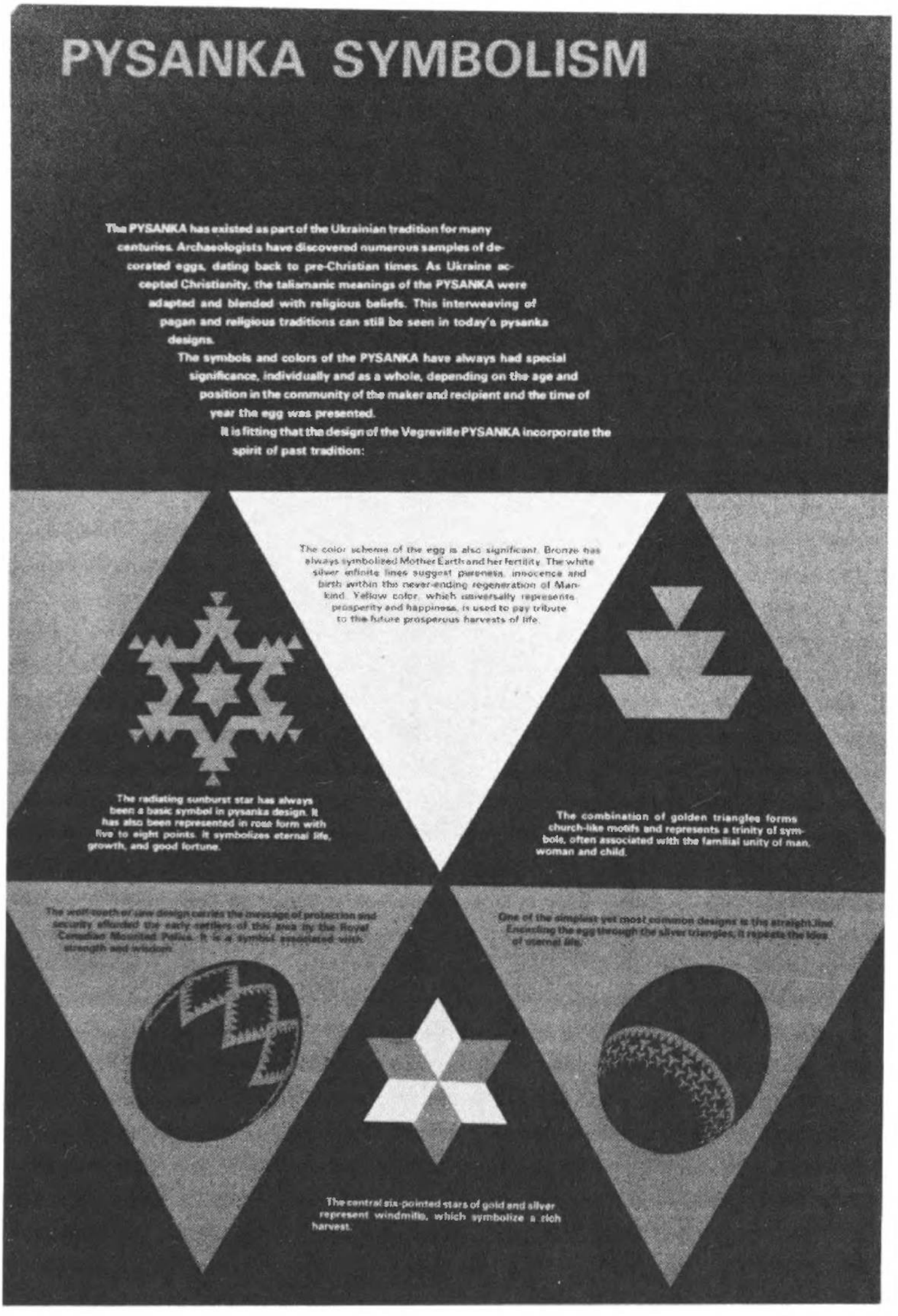
Next to a symbol of a mounted policeman, with "1874 - 1974", we read the report of the Alberta RCMP Century Committee.

Of the great variety of projects undertaken to mark the Celebrations, none can be regarded as more unique than the Ukrainian Pysanka (Easter Egg) undertaken by Vegreville.
It spectacularly contrives to combine the ancient traditions of one of Alberta's largest ethnic groups with architectural and geometric developments that represent 'break-throughs' in modern science, thus linking heritage and progress.

"I still don't really understand," I said. "I'd like to find out more."

Little did I know on that sunny day as I wandered by the fish pond in Vegreville's Elks-Kinsmen Community Park, that by wintertime I'd be living in this unique community. I certainly couldn't have guessed I'd be writing a book about that wonderful big egg!

I'm glad I hadn't heard the Ukrainian proverb, "If you don't know the ford, don't go into the water." It might have scared me off from the challenge of writing this book. But I soon learned that the people of Vegreville, of whatever ethnic origin, are among the most hospitable folks you'll find anywhere.



The display panel explaining the symbolism of the Vegreville Pysanka. The egg's design tells a story in colour and pattern motifs. (Photo by Heather Jean Glebe).

THE PYSANKA AND THE POLICE

Some Vegrevillians say the early North West Mounted Police didn't visit the Ukrainian homesteaders to buy eggs. They came to check for homemade stills. Chances are the occasional officer warmed a winter's night sharing potato wine, despite Prohibition!

Nevertheless, everyone acknowledges the role played by the Mounties in establishing order on the Western frontier. They made this area accessible and secure to settlers of Ukrainian and other ethnic origins, so that today Vegreville boasts of being one of the largest multicultural communities in Canada.

As a new resident, I learned how to pronounce pysanka *(PE-sing-kah)* the way Ukrainian folks say it. Pysanka, or the plural, *pysanky*, is derived from the verb *pysaty* (to write).

I also finally had my question answered. Why did Vegreville use a pysanka to commemorate the 100th anniversary of the RCMP?

"The key is that Easter egg writing is a unique way of telling the story," says Ralph Gorrie, chairman of the RCMP centenary project committee for the Chamber of Commerce when the egg was built in 1975.

"This point is missed by 99 per cent of the people, even those who live in Vegreville. But those of us who were involved back then know."

In a report to the RCMP Century Celebrations Committee, Ralph wrote: "The main objective of the project is to symbolize the security afforded our pioneers by the RCMP. It will be this community's tribute to the RCMP and will particularly recognize the significant role played by the RCMP in the early development of the district."

A little grayer now but just as enthused about the purpose of the Pysanka, he leans across his desk at the Vegreville Cultural Association office. "You see, we chose a unique way to present our acknowledgements to the RCMP. When the Ukrainians do pysanky, it all has great significance, all in symbolism. Every mark means something."

Humorist C.D. Evans, writing for the Calgary Albertan, summed up the connection between the pysanka and the police in his own style. Referring to the unusual project initiated by the "good burghers" of Vegreville, he quipped: "What is egging on these public-spirited sponsors is a genuine desire to pay tribute to the RCMP on their one

hundredth anniversary, by a unique form of cultural expression. The symbolism of the sculpture will not be lost on the Redcoats, who frequently adopt a hard-boiled attitude in the course of their grim duties."

Local Mounties pose in 1975 with Vegreville's new monument honouring the RCMP's 100th anniversary in Western Canada. (Photo by Ernie's Photo Studio).

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THE CHICKEN THAT LAID THE EGG

I'd heard folks joke about Vegreville's Pysanka, saying "I'd like to see the chicken that laid this egg!" Yes, what kind of "chicken"--what kind of people--produce such a monument? This was my next question.

A CULTURAL EXPERIENCE

The night I arrived in Alberta was an experience etched into memory for a lifetime. My little car was crammed full of personal belongings, including the cat (with her litter box, food, water, toys for the journey, etc.)

A blizzard had raged since dawn. I forced my weary eyes to stay on the patch of light ahead, in a mesmerizing flurry of white. Suddenly, on the car radio, CFCW's "Ukrainian Hour". What a perk-me-up! My toes jiggled to the lively polkas and I listened in fascination to the unfamiliar language spoken by the host.

"I think we're going to like it here," I laughed. My feline companion purred in reply.

That was only my initiation. A few days later, January 6th, I was a guest at a Ukrainian Christmas Eve supper. My hostess, Linda Taranko, must have worked for days to prepare for this remarkable feast, I thought. The traditional 12 meatless dishes crowded the table as we gathered around. One of the children spoke a lengthy blessing in Ukrainian. I was impressed.

Along with other non-Ukrainian guests, I eagerly sampled *kutia (koot-YAW)*, a mixture of boiled wheat kernels and poppy seeds sweetened with honey; *holubtsi (hol-UPT-chy),* cabbage rolls filled with rice; two kinds of *pyrohy (PE-roe-he)*, perogies made with potato and cabbage, *kolasha (kol-OSH-a),* fried cornmeal; along with pickled herring, peas and sauerkraut, mashed white beans with garlic, poppy

seed rolls and more. Delicious. But heavy on the garlic, I thought. (And on the calories!)

Our hosts explained to me that in respect for the animals in the stable where Jesus was born, Ukrainians traditionally do not eat any meat or dairy products on Christmas Eve. Farm people give their livestock a special treat or an extra fork of hay that holy night.

We ate until we couldn't swallow another mouthful. Then this family and their Ukrainian guests sat around the table telling ethnic jokes--the "dumb Ukrainian" kind. They howled with laughter. I shook my head in awe. So, this was "kooky Ukey" good humour!

In mid-January I wrote to friends in my former home telling how the Christmas decorations were still up in the Vegreville shops. I enthused about a wonderful carol festival I'd attended, feeding my lingering Christmas spirit, always reluctant to leave the festivities for another year.

The school gymnasium had been packed, and the concert opened with a rousing 100-voice chorus. I couldn't read a word of the program, and understood only the occasional English spoken by the emcee. But I didn't need words to feel the joy of the Christchild's birth expressed so vividly by rosy-cheeked children and robust men and women, all dressed in colourful ethnic costumes.

A week or two later I attended a traditional Robbie Burns Supper, in honour of Scotland's beloved poet. I was in for another surprise. The Scottish ceremonial traditions were familiar, customary to Burns Night celebrations around the world. But I'd never before seen cabbage rolls and perogies, chop suey and pasta served along with the haggis and "bashed neeps"!

I was beginning to experience the special flavour of life in a multicultural community.

Through the winter, I encountered more of the warm hospitality of my ethnic neighbours at community dances (not even a sober judge could sit out those spirited polkas!) and church *pyrohy* suppers. I occasionally joined others at the local Homesteader Restaurant for weekly smorgasbords of German, French, Hungarian, Chinese, Mexican or Ukrainian foods. I learned to love good *kobasa* (Ukrainian sausage) and *nachinka* (baked cornmeal), and, as spring came, wild garlic and mushrooms picked in the coulees.

Exploring around the country, it was always a big thrill to discover another beautiful onion-domed church set in what seemed the-middle-of-nowhere. The diversity of cultures is evident in Vegreville's churches: everything from Lutheran to Anglican, Roman Catholic to Russo-Greek Orthodox. At Easter, I had a glimpse of the customs of the Ukrainian Catholic community, when a friend invited me to the "blessing of the baskets" in the exquisitly decorated Holy Trinity Church (one of the last services in the old building before the congregation moved to their new one).

Vegrevillians are proud of the harmonious mixture of cultures and the intermarrying which has taken place among different ethnic groups and their descendents.

As I scan the surnames in the Vegreville telephone directory, however, the dominant cultural heritage is obvious. Ukrainian people can tell from the spelling of a name which part of the Old Country the family came from. But I wondered, why so many slight variations in spelling? There is Yuschyshyn and Yushchyshyn, Pauliuk and Pauluk, Sokolosky, Sokoloski and Sokolski.

I found a clue in a book of pioneer accounts. "The Ukrainian language abounds in colloquial and idiomatic expressions and in phraseology that defies accurate interpretation. Some expressions have no English equivalents.

"Transliteration of names is also troublesome. Ukrainians from different parts of the Austro-Hungarian Empire used different systems. Many immigrants adopted English versions because Anglos had such difficulty spelling and pronouncing their surnames."*

I found another clue while visiting the Homestead Senior Citizens Lodge in Vegreville.

"When I went to school, I didn't know any English," said an elderly gentleman. "Neither did my brother, here." He gestured to another white-haired fellow. "The teacher asked my name, and I told her, but she couldn't understand so she wrote it down wrong. Same thing with my brother. So we've had these different names ever since."

The language, too, varies. A wife may call potatoes *barabolia* as her family always did, while her husband calls them *kotophy*, as they did where his family came from. But they understand one another.

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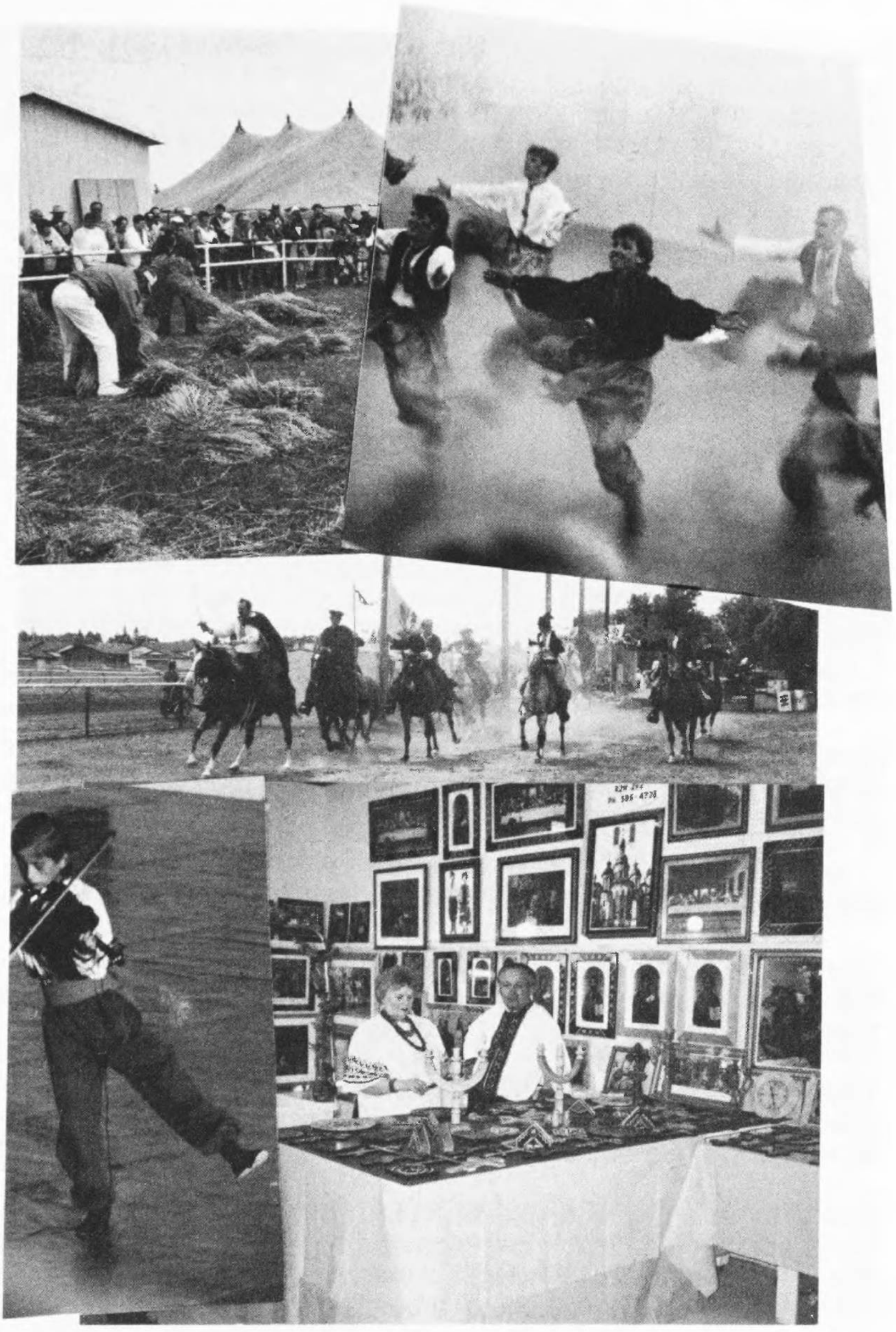
* Land of Pain, Land of Promise, translated by Harry Piniuta, Western Producer Prairie Books, 1978, page 10.



Scenes from Vegreville's 1991 Pysanka Festival. (Photos by Heather Jean Glebe and courtesy of the Vegreville Cultural Association).

When Vegreville's main street was given a face-lift in 1991, even the sidewalks took on an East European flavour. But for me, the most delightful cultural experience of all came at Pysanka Festival time, early in July. The1991 festival marked the 100th anniversary of Ukrainian settlement in Western Canada.

Such a celebration!

I've loved parades ever since I could crawl, but I'd never seen one like the Pysanka Festival parade. No brass bands, no huge floats bedecked with flowers. Just fiddles and accordions, singing and dancing, horses and wagons, and handfuls of candies tossed out to scrambling children.

At the exhibition grounds, a huge banner decorated in red and black border designs proclaimed *Bitaemo* (welcome). Competitions for music, recitation, dance, folk-arts and crafts involved thousands of entries. Most performers showed astounding skill. In awe, we "oldtimers" (over 30) watched the kids leap and twirl, their colourful ribbons flying and satin pants swishing, dozens of red boots perfectly in step. We came away invigorated by the contagious exuberance of youth and the vibrant spirit of the Ukrainian culture.

Pioneer demonstrations, entertainment, exhibits, grandstand show--all added up to a vital statement: the culture of their forefathers is alive and well among Alberta's Ukrainian descendants.

FIRST SETTLERS, FIRST TOWN

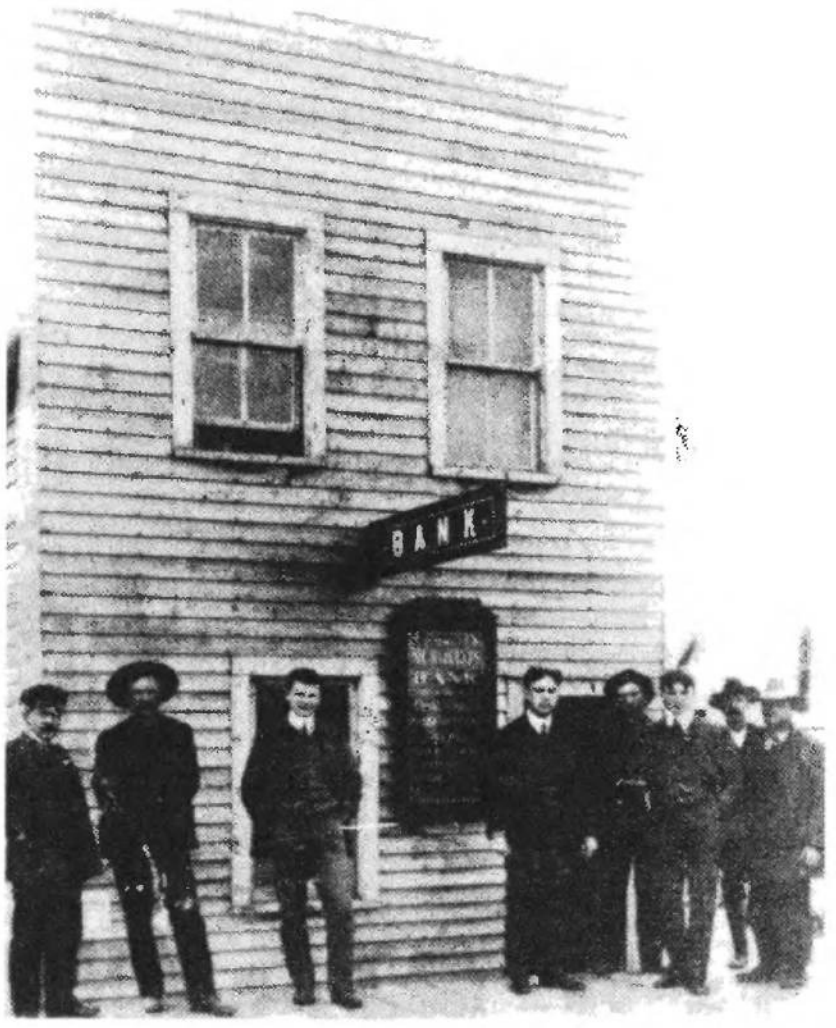
"We are the centre of Ukrainian culture for three days a year," says Ralph Gorrie, secretary manager for the Vegreville Cultural Society. "But again I stress, we are a multicultural community."

True. Although Vegreville's Ukrainian heritage is very evident in community life, Ukrainians were not the town's first settlers. Neither was the town of today the first Vegreville.

One summer's day while exploring the country on my bicycle, I happened upon a cairn a few kilometres south of town. "So, this is the site of Old Vegreville," I thought. It was hard to imagine those quiet fields had once been the site of a bustling town.

The first settlers were French people who arrived in 1894 from Kansas, lured by the rich soils on the banks of the Wah-ski-wa or

Birch Creek. They named their new hamlet after a beloved Roman Catholic missionary, Father Valentin Vegreville. English-speaking settlers joined them the next year, and the first Ukrainian homesteaders arrived in 1898.



Merchants Bank, 1906. (Photo courtesy of Mike Tomyn)

But in 1905, the Canadian Northern Railway came through northeast of town. Everyone packed up and moved--including their stores, post office, school and church. Buildings were dragged across the open prairie on skids pulled by oxen and steam tractors. It became a race to see who would get to "New Vegreville" first. They say the Merchants Bank beat the Bank of Commerce by five minutes. When the dust settled, the town boasted close to 300 residents.

Although many area people today descended from French, English and German pioneers, the predominant heritage stems from a huge wave of immigrants who fled the poverty and discouragement of life in what is now known as Ukraine. Until after World War I these settlers were called Austrians, Galacians, Bukovynians and Ruthenians, rather than Ukrainians.

First to arrive in the area were Ivan Pylypow and Wasyl Eleniak, two young men from the town of Nebyliv, near Kulash in the Galacian district of Austro-Hungary. "I sold a team of horses and a yoke of oxen to pay for my steamship ticket," Ivan later recalled, "but it looked as if I didn't have enough money for the full fare so I sold some of my land to pay for the trip."*

Not only was Ivan risking nearly all he had to his name, he would have to leave his wife and three children behind. "Every day she'd say to me, 'I won't go. I won't go!'. 'Then stay!' I told her."

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* Recollections About the Life of the First Ukrainian Settlers in Canada, by William A. Czumer, Canadian Institute of Ukrainian Studies, Edmonton, 1981, page 13.

Ivan and his friend Wasyl arrived in the fall of 1891. They explored the land around Winnipeg, and took the train further west to check on land in Alberta. "There was land everywhere; land wherever you went, all empty. Just take a plough and start ploughing. Not like in the Old Country, where people worked small, narrow strips or didn't even have a bit of garden."

Ivan became so excited about what he saw, he decided to return home for his wife and family and anyone else whom he could persuade to come. "I thought it would be good to bring more families from our village," he said. "They could get land together and wouldn't be so lonely in a foreign country."

Wasyl stayed to work in Gretna, Manitoba, but directed Ivan to bring back his family. Four days after Christmas, Ivan arrived at his home village. His house was soon crowded with people full of questions about where he had been and what he had seen. Very few had any idea where "America" was, and could scarcely believe that over there across the sea one could get so much land for next to nothing. And no landlords, either! Ivan's word spread among the villages: "Run, run away, because here you have nothing. . . there, there is land. Here you're pushed around, but there you can be your own boss."

A deal with a steamship company further fueled Ivan's enthusiasm--he was promised $5 for every family he talked into buying a ticket. But this arrangement cost him a month in jail for "selling" his people to an agent. While Ivan paced the prison floor, people left for the new country on their own. He had told the judge the people wanted to go for themselves, and he was right.

Among the first to bid a heart-wrenching farewell were the Romaniuk, Eleniak, Paish, Tychkovsky and Vyzhynovych families. Three days after Easter, 1893, Ivan left the Caparthian Mountains forever, this time with his family (now numbering four, the youngest only six months old) and two other families.

These pioneer Ukrainians from Galacia and Bukovyna first settled in Edna (now called Star), 65 km north east of Edmonton. By 1914, 200,000 more followed them to the Canadian West, with another 50,000 in the 1920s. By 1930, an area of 8,000 square miles from Fort Saskatchewan to Vermilion was the largest settlement of Ukrainians outside Eastern Europe.

PEASANT ORIGINS TO PIONEERING CONQUEST

"Newcomers on unbroken land, Ukrainian settlers cast off the burden of generations of poverty and gave their children a world of new opportunity," reads a display at today's Ukrainian Cultural Heritage Village, east of Edmonton. There the history of these people is presented "from peasant origins to pioneering conquest".

Tales of hardships abound. "You couldn't list on an ox's hide all the miseries I have experienced in Canada," said one immigrant. With their bare hands and primitive tools, they cleared the trees and bush, dug out stumps, ploughed the raw prairie, picked stones, dried the muskegs and by their own sweat "transformed a wilderness into 'bread-growing' fields," said Mykola Davidiuk of Vegreville in his little book *My Memories as a Pioneer*. "It was not like the shipping company agents used to tell us in the old country: 'In Canada, the farms are fenced with sausages, and the rivers flow with milk'. Homesteaders had to leave their wives and children in the wilderness (and) go who-knows-where in search of jobs" in order to earn a few much-needed dollars.

(Photo by A.R. Wright, 1906)

A man set out from his new homestead not knowing where he'd end up, how long he'd be gone, or what kind of labour or working conditions he'd find. He left but a few potatoes and some sugar and flour for his family, and hoped he could bring them more upon his return. Such conditions are hard for us to imagine, today.

How do you measure the toll in human emotion--determination and longing, hope and fear?

> *With one hand he drove the steers*
> *And with the other, wiped the tears.*

This Ukrainian proverb could also mean "she wiped the tears". Although many homesteads were adjacent to one another on the map, in real life each family was isolated by miles of tangled bush, rivers and swamps, hoards of mosquitoes and black flies. A woman often toiled on the land alone. She had her babies alone, in a crude sod shelter *(burdei)* for a home. Besides serving as both father and

mother, the wife was hunter, farmer, teacher, doctor, veterinarian, tailor and carpenter all in one.

But with the cool nights of autumn, a husband may have earned enough working on the railroad or in the town to bring home some oxen and a milking cow. What joy to be reunited! One man was astonished to find, upon his return, a cozy log house built in his absence by his wife and 10-year-old son.

Gradually, over the years, it got better. Once the farm could support them, men no longer had to work for wages.They turned the *burdei* into a chicken-house and moved the family into a new house made of wood and clay and straw. They cleared and seeded a few more acres, acquired some livestock, and their community opened a school.

(Photo by A.R. Wright, 1906)

Vegreville, on the southern fringe of the Ukrainian bloc settlement, became a centre for marketing and merchandising. It was also the centre for promoting better farming and education, thanks to one early citizen, Peter Svarich.

Peter arrived in Canada in 1900 and settled in Old Vegreville before heading out to the gold fields in Rossland and the Klondike. He returned to Vegreville five years later with $10,000 in his pocket and qualification as a steam-engineer. Eager to succeed as a farmer, he became a respected leader among other immigrants in promoting modern farming methods.

He was as instrumental an educator as he was an agriculturalist. First, he conducted a Steam-Engineering School for young men. Then prior to the opening of a public high school in Vegreville in 1906, he sacrificed his own small home for a Presbyterian mission school. This "collegiate", as he called it, occupied the main room while the family moved out to a lean-to by the stable!

In the mission school, which ran for 28 years, young people were taught in both English and Ukrainian. As public schools opened, English was the language of education. But people also wanted their children to be taught some of their native language. In 1913, the Alberta government opened an "English School for Foreigners" in

Vegreville, a kind of crash course for Ukrainian-speaking young people to learn English and take up teaching in Ukrainian communities.

It has been said the centuries of oppression and economic exploitation in the Old Country made the Ukrainian peasant "enduring, self-reliant, hardworking and thrifty. Besides, his hard lot had made him fatalistic--What will be, will be!" * These traits which served an immigrant well to survive in the new land, have also brought success to his descendants.Thirty years after Ivan Pylypow settled at Star, his original 1903 homestead had grown to five quarters "paid for and registered", he proudly stated. At 73, he had hired men to work it for him. His eldest son, Vasyl, owned another five quarters.

TODAY AS YESTERDAY

Farms grow bigger and mechanization more sophisticated, but the tradition of hard work has not changed. One night I met a nice man at a dance. I learned he was a farmer whose family had arrived in 1902.

"What do you like to do for recreation?" I asked.

He hestitated and shrugged. "I don't have time for recreation," he said. "I just work."

Typical. A farm family is busy from the first rays of light until well after dark, day after day. At seedtime or harvest, they think nothing of supper at 10 or 11 o'clock, when the work's done. A drive around Vegreville streets reveals huge gardens behind most houses, producing more than you'd think a single family could possibly consume. Little is wasted. The August kitchen is alive with the smell of *kapusta* (sour cabbage), pickles, applesauce and beets.

What can't be eaten or preserved is given away, true to another Ukrainian tradition--generosity. In the earliest days, during the long ocean voyage and 3,200-mile train journey from Halifax to Edmonton, immigrants shared what they had. Some ran out of money soon after they started. But they would borrow from others. "It is amazing how many times the money of one of the wealthier immigrants passed from one group to another," said Joseph Lazarenko in *Ukrainians in Alberta*.

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* "They Came to Farm" by Fred Magura and William Kostash, Ukrainians in Alberta, Ukrainian Pioneers Association of Alberta, Edmonton, 1975, page 45.

It is the same today. I leave the farm of Ukrainian friends laden with garden produce, fresh eggs, preserves, my car filled with gasoline, and the whole family urging me to come again soon.

Ukrainian pioneers worked hard, but they earned their rest by their faith. Only the essential chores--milking cows, cooking meals--were done on Sundays. Many days of the year were given over to religious holidays.

Street scene, Vegreville, 1906 (Photo courtesy of Mike Tomyn)

Time was found to preserve not only Ukrainian religious traditions but their music and dance and home arts such as pysanki.

These arts today are far from gone. Ukrainian bilingual classes are popular in public and private schools. Dance companies involve youngsters from pre-school and up and children are evident at every church function. Vegreville itself has an active Cultural Association, two Ukrainian dance schools and a dance company, and a number of singing groups involving children to seniors.

With a population of 5,500, Vegreville is the largest town in the Ukrainian bloc east of Edmonton. The language is still frequently heard on the post office corner. But they say 75,000 people of Ukrainian origin live in Edmonton, too. Ukrainian cultural events take place in the city throughout the year.

One day at the Ukrainian Cultural Heritage Village, 20 minutes east of Edmonton on Highway 16, I looked around at the crowd gathered for a music festival. Children romped on the grass with their gray-haired "babas" and "gidos", mothers jiggled their babies in time to the fiddles. Young people in embroidered blouses played the tsymbaly (Ukrainian dulcimer) as effortlessly as I'd tap my fingers on a table. People

hummed along with their favourite melodies and laughed at the emcee's jokes spoken in Ukrainian. Other folks had booths showing Ukrainian weaving and carving and sausage and baking, and, of course, exquisite pysanki.

"This is the chicken that laid that big egg," I thought. "But how? How did they do it?"

****** 3 ******

WHAT DOES IT MEAN?

When the Vegreville Pysanka designers took up the challenge of decorating the biggest Ukrainian Easter egg in the world, they drew upon a tradition thousands of years old.

Archeologists have discovered ceramic pysanky in Ukraine dating back to 1,300 years before Christ. Many of the motifs used to decorate the eggs can be directly traced to the Bronze Age, 5,000 years ago. Their symbolism echoed the people's close attachment to the soil and other elements of nature. The designs have been linked to Egyptian ceramics, and coloured eggs were used by the ancient Persians to celebrate the spring equinox.

The pysanka maintains an aura of mystery because it involves triple symbolism: the symbolism of the egg itself, the symbolism of the design, and the symbolism of colour.

"The common, everyday egg can bring you endless riches and good fortune!" reads an advertisement in a contemporary magazine. The ad promotes a new book on the age-old mystic secrets of the egg, proclaiming readers have reported amazing miracles and enrichment in their lives since they tried practising "egg rituals".

The egg has been associated with mythical and religious ceremonies since man first starting pondering the meaning of life. In many cultures, the egg came to represent the original source of creation.

GREAT COSMIC EGG

Ancient man sat before his hearth-fire and told his children how the world came to be. Before anything else existed, he said, there was only a great cosmic egg. This egg began to expand throughout the primeval night until it burst, giving birth to all living things.

Thus, the egg came to symbolize the greatest of all mysteries that man could experience--the Mystery of Life.*

French, English and several Slavic cultures, including Ukrainian, show evidence of the cosmic egg belief. They believed that to recreate this egg and decorate it with symbols of fertility, power and life, they would be able to assist the world in remaining alive, powerful, and above all, good.

As a symbol of life and renewal, the egg became part of spring rituals and customs. Eggs were decorated for festivals which honoured the sun, for the sun sustained all living things. It brought a rebirth of nature, warmth to the soil and growing things, and light to the dark forests and steppes.

With the introduction of Christianity to Ukraine in 988 A.D. pagan rituals became adapted to Christian traditions. The "sun" became the "Son". Ancient customs of springtime rebirth became represented by the Ressurection. Thus, for about 1,000 years decorated eggs have been part of Ukrainian Easter customs.

Many legends were told involving the coloured Easter egg. The Hutzuls, in Western Ukraine, said that during the agony of Christ, the Blessed Virgin Mary decorated some pysanky to offer to Pontius Pilate when pleading for her son's life. As she prepared them, her tears fell on the eggs and formed dots of brilliant colour. (To this day, dots incorporated in pysanky designs often represent Our Lady's Tears.) When she came before Pilate, Mary dropped to her knees in grief. The pysanky rolled from her apron across the floor, and kept rolling until they were distributed around the world.

In fact, say the Hutzuls, the fate of the world depends upon pysanky. As long as egg-decorating continues, the world will continue. Otherwise, evil, in the form of a vicious creature chained to a cliff, will encompass the world and destroy it. Each year the monster's servants encircle the earth, recording how many pysanky are made. When there are few, the creature's chains loosen and evil flows throughout the world. When there are many, his chains hold taut, allowing love to conquer evil.*

As preparations for the Easter holiday begin, Ukrainian parents tell their children the tale of a poor peddler on his way to market to sell his

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* Pysanka: Icon of the Universe, by Mary Tkachuk, Marie Kishchuk and Alice Nicholaichuk, Ukrainian Museum, Saskatoon, Sask., 1977, page 15.

* Ukrainian Easter Eggs, by Yaroslava Surmach, Surma, New York, 1957, page 4.

wares, a basket of eggs. He came upon an angry crowd mocking a man staggering under a heavy cross upon which he was about to be crucified. The peddler took pity upon the man. He left his basket beside the road and ran to help him. When the peddler returned, he found his eggs had been transformed into exquisite pysanky.

The man was Jesus Christ, the peddler Simon of Cyrene.

Pysanki made by June Woloshniuk. Each part of the design means something and no two are the same. (Photo by Heather Jean Glebe)

MYSTICAL POWERS AS TALISMANS

Pysanka are for decoration only, but also important to the Ukrainian Easter is the *krashanka*. This hard-boiled egg is dyed a solid colour, usually a brilliant red, and is meant to be eaten. Krashanka stems from the word *kraska*, meaning colour. *Hakunka* is the Bukovynian version of the krashanka.

Each province, each village and often each family in Ukraine has its own special ritual, symbols, meaning and secret formulas for dyeing eggs. They preserve these heritages faithfully, passing them down through the generations from mother to daughter. After receiving the Easter blessing, the decorated egg is held to contain great mystical power.

A seriously ill person may be given a krashanka to wear around his neck for a guaranteed recovery. Diseases were once believed to be cured by touching the affected parts of the body with a krashanka.

The magic eggs helped around the farm, too. A krashanka, rolled in green oats and buried in the ground, assured a full harvest unharmed by rain or wind. A pysanka was nestled into the manger to assure safe calving for cows and colting for horses. Beehives were blessed with pysanky, and hens encouraged to lay.

Because of their symbolic origins and significance, pysanky are highly treasured. To receive a pysanka is the ultimate personalized gift, a token of esteem or affection. In the past, many meaningful customs surrounded these exchanges. A young girl worked for many hours to produce her best pysanka to present to a special young man. Godchildren were blessed with a gift of pysanky before dawn on Easter morning. Even ancestors were not forgotten--a pysanka or krashanka was buried shallowly on their graves as an Easter blessing.

PREPARING PYSANKY

The art of decorating the pysanka was and still is considered a holy and ritual task. Before beginning her work during Lent, a woman would recite specific prayers to guarantee the recipient of her egg would be endowed with happiness, well-being, joy, good fortune and protection from harm.

The mistress chose fresh, perfectly shaped and smooth eggs, a live candle flame and clean beeswax to prepare her pysanki--all for important reasons. The flame was considered the talismanic descendent of the living sun. The wax was made from honey; the honey collected from flowers; the flowers grew because of the sun. According to ancient belief, some souls became flowers after death while some souls were born of flowers.

"God bless and help me," the woman said. Then she began her work, planning specific motifs with symbolic meaning for the recipient.

She chose late evening to write her pysanky, after the children and elders were asleep, and following a "holy" day free of argument, hostility or sin. She worked alone, to keep her artistry a secret until Easter. In the stillness, she worked in an atmosphere of spirituality imparted to the symbolic eggs. Rituals varied from region to region, but throughout the whole of Ukraine the custom was observed solemnly and with great ceremony.

Each region has its own particular colours, patterns and names for the designs. Intricate geometric patterns are most widely used, but plant and animal motifs are also quite common.

Geometric patterns include the tripod, star, triangle, sieve, circle, rhomb (Byzantine cross), ladder, cross and straight or curved lines. Plant motifs do not reproduce any plant in natural detail, but represent pine trees, oat leaves, lily of the valley, periwinkle, tulips, apples, grapes, cherries and grain. Animal motifs, dating back to the stone age, are never used independently but are incorporated into geometric forms.*

SYMBOLISM OF COLOUR

The symbolic meanings associated yellow are light and purity. Yellow speaks of youth, happiness, harvest, hospitality, love and benevolence. Orange is symbolic of endurance, strength and worthy ambition. It represents the red of passion tempered by the yellow of wisdom.

Green symbolizes the breaking of shackles, like the freedom of springtime from the bondage of winter. It is the colour of fertility, freshness, health and hopefulness, and in the Christian context, victory of life over death. Red signifies action, fire, charity and spiritual awakening. It glorifies the sun and the joy of love and life, and in Christian symbolism it denotes divine love and the passion of Christ.

Black is said to represent the absolute, constancy, eternity or the womb. It may also denote death, fear and ignorance. Brown is the symbol of mother earth, bringing forth her bountiful gifts, and blue (though used sparingly) signifies life-giving air and skies and is a talisman of good health.

White denotes purity, virginity, innocence and birth, and purple speaks of fasting, faith, patience and trust.*

Most Easter egg designs are of ancient origin, but each woman applies her own skill and ingenuity in creating, combining and arranging the patterns and colours harmoniously. No two are identical.

On Holy Saturday, when food prepared for the Easter Sunday feast is brought to church for the holy water blessing, the pysanky are exposed to public view for the first time. The priest and loved ones are

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* Ukrainian Canadiana, published by Ukrainian Women's Association of Canada, Edmonton, 1976, page 78.

* Pysanka: Icon of the Universe, by Mary Trachuk, Marie Kishchuk and Alice Nicholaichuk, Ukrainian Museum, Saskatoon, 1977, page 32.

greeted with *"Khrystos Voskres"* (Christ is Risen), to which they reply, *"Voistyno Voskres"* (Truly, He is risen).

On Easter morning, the Lenten fast is broken by the family's sharing hard-cooked krashanka. Children play games such as "Trial of the Krashanky", tapping their eggs against an opponent's to see who's egg can last longest without cracking. Pysanky are exchanged throughout the three days of the Easter holiday, each presentation prefaced with, "Christ is risen", and the reply "He is risen indeed".

HOW IS IT DONE?

When June Woloshniuk of Vegreville was a little girl, she learned pysanki writing from her mother, who had learned it from her mother. Many years later June took up the ritual again, and now it is a full time job which she loves. She still often works with her mother, Mary Ropchan.

The setting and the purpose may have changed, but the process is much the same. Writing on an egg is a batik technique, with a successive layering of hot wax and coloured dyes. June makes Ukrainian Easter eggs year around, selling them at numerous craft fairs. "There aren't many people doing pysanki anymore," says June. "They just don't have the patience or ambition, I guess." However, she finds her eggs are in great demand. Some say the art of Easter egg writing is experiencing a revived interest in North America.

June relaxes on her chesterfield, a TV talk show to entertain her, and lays out her specially chosen eggs. "The shape is important," she says. "I want them not too long or pointed." She does a dozen at a time. "I don't fool around with one."

First she plans the decoration. The technical difficulty of the uneven, curved surface is solved by dividing the egg into sections, or fields, with basic lines running horizontally and/or perpendicularly around the egg. The entire design is based on these divisions. They separate individual motifs which are repeated two, four, six or up to 40 times.

June draws these lines freehand with pencil, her experienced eye making each division remarkably symmetrical. She uses the most popular symbols: 40 triangles (symbolizing the 40 days of Lenten fasting), the flower, the cross, pussy willows, birds, poppies or wheat. "Each design means something, even today," she says. "For instance, the triangle represents earth, fire and water, the elements we need to live." It can also symbolize the Holy Trinity: Father, Son and Spirit.

She creates many of her own designs. "Sometimes I copy designs, but usually I modify them. I'd get tired making the same kind over and over."

With the design penciled in, June takes up the *kystka*, (also spelled *kistka*) to apply the wax. She used to work with the traditional kystka, a thin piece of metal twisted into the shape of a funnel at the end of a

June Woloshniuk makes traditional pysanki but not only at Easter time. She applies the wax with a kystka then dips the egg into various coloured dyes. (Photo by Heather Jean Glebe)

pencil-like stick. Now she has graduated to an electric kystka, which allows more control and a much finer line. "In the old days, the simple pysanka designs really meant a lot," she says as she works. "The fancy ones started coming later. As the lines became finer, the designs really started getting complicated."

With a steady hand, she waxes wherever she wishes the pattern to remain white. The kystka works like a miniature cake decorator, with blackened wax so June can see where it is painted on the egg. As she rotates the egg, she holds the kystka still, and the lines take shape.

She then drops her egg into a glass of golden yellow dye. As it soaks, she works on another pysanka.

"I can sit here for hours and hours," she says. "I'll work until I'm so tired I can't hold the egg!" Lately, however, she finds arthritis in her hands hampers her work. "After too long my hands may ache and cramp up. But usually, I find this work very relaxing."

When the egg has taken on the desired colour, June waxes wherever she wants the pattern to stay yellow. Then she pops the pysanka into the next colour, usually orange. And so she proceeds, with alternate layers of colour and wax until her entire pattern is completed, with darkest colours done last.

By this time, the wax-covered egg may look anything but beautiful. But then it is warmed in the oven, the liquified wax is wiped off, and-- Magic! An intricate work of art is revealed. Some designs work out better than others. "I have to see the whole finished product before I can tell which patterns are working best," says June.

Then she removes the raw insides. Blowing out the egg is easy, through a pin-hole at either end, she says. "The shells are actually stronger when they're empty. They'll even bounce. I've had pysanky shipped to Vancouver and the United States and none have ever broken." Three or four layers of varnish applied to the finished eggs helps strengthen them as well as preserving the colours.

Occasionally, blowing turns into a disaster and June loses all her hard work. "Sometimes there's a build up of gas, even if the egg is fresh. It's not old but for some reason the shell is weak and I don't realize it, and the whole end comes off when it's blown," she says.

"In the old days they didn't always blow the eggs out. Sometimes the inside would just dry up, but sometimes it wouldn't. If the eggs are in a closed container and there's no air at them, they can explode."

One night as June and her husband relaxed in their quiet living room, a loud crack made them both jump. "It sounded like a bomb went off," June recalls. "I said 'What was that?' when it began raining egg shell . . .and oh, the smell! It was a goose egg pysanka that had exploded. What a mess to clean up!"

Many of June's eggs are actually "cheaters". They are divided into two, lengthwise, each half decorated with a different design. These half-shell eggs are set in glass-topped frames meant to hang on the wall.

June still finds satisfaction in continuing a strong heritage. "It's something started by my ancestors, and I feel good about carrying on the tradition," she says. "The art has changed a little, but it's basically the same."

As she works, she tells about some of the old-time traditions she and her husband remember from their childhoods, customs brought to Canada from the Old Country. "We used to each take a krashanky and tap it against each other's to see who had the strongest. It was a big game--the kids today still love it. And all the shells had to be taken out in the field, and sprinkled in each corner to make good crops. Every morning we'd put a little bit of crushed egg shell in the basin when we washed, for good health and good life."

Ukrainians such as June Woloshniuk know a secret--as long as Easter eggs are being decorated, the forces of evil will be defeated by the forces of good. And that's worth working for.

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A GIANT EGG? YOU'RE KIDDING!

One summer evening in 1973 the Vegreville and District Chamber of Commerce members stepped out of the sunshine and into the back room of the Chatelaine Cafe. Normally meetings were waived for July and August, but this was an exception. Something important had to be discussed.

Following supper, Bill Dowhaniuk, standing in for president Jerry Wilde, introduced the guest speaker for the evening. Cpl. Lamb of the local RCMP stood erect as he related the history of the force. "In 1873, there were only 150 men in the North West Mounted Police ranks," he said. "They travelled mainly by horse and ox-cart. Today the force consists of 15,000 men who are equipped for all emergencies. We can communicate anywhere in Canada within a few seconds, and pictures can be sent across the country in three minutes. With all this modern technology, however, we still rely on nature--police dogs are the best way to seek out certain illicit drugs."

Superintendent of Schools Ralph Gorrie listened with keen interest. The RCMP's story was important to the next business at hand.

From the podium, he looked down the long tables at the town's business people. "Ladies," he nodded at Kay McKenzie from the Town Council and Sister Ruth, Administrator of St. Joseph's Hospital, the only women he noticed among two dozen men, "and gentlemen. For awhile now we've heard talk of money to be made available for community projects acknowledging the RCMP Centennial next year, the history of which was so ably outlined to us tonight by Corporal Lamb."

He exchanged polite smiles with the local Mountie. "At our executive meeting I opened by mouth and you know what happens next. Seems I've got myself a new job--chairman of the Centennial Project Committee."

Chuckles and nods rippled down the rows of members. Ralph reached into his pocket. "I have here the official word from Dr. J. G. MacGregor, chairman of the Alberta-RCMP Century Celebrations Committee." He cleared his throat and began reading. "Dear Sir, As you will be aware, 1973 marks the centennial of the RCMP. In Alberta. as in other parts of Canada, there have been numerous ceremonies and activities to mark the occasion. The famous march westwards culminating in Fort Macleod and Fort Edmonton in October 1874 is now part of our national history. But for us modern-day Albertans the significance of this event is not merely an aspect of our national history; rather, it represents the beginnings of our own heritage. Had it not been for the arrival of the NWMP in the southern part of what is now Alberta, who can say whether the opening of the West would have taken place, how and when it did or whether, indeed, there would be today a province of Alberta? It is because of the tremendous historical importance of the events of 1873-74 that the Government of Alberta has decided to bring to the attention of everyone in the Province the desirability of commemorating this important centenary."

Ralph looked up. "They also outline their objectives and some suggestions for possible projects."

His gaze swept the room. "We all agree Vegreville should take up this challenge. But we haven't much time. The deadline for application is September 15th. Your committee is open to suggestions."

A HUGE HORSE?

He sat down and waited. A buzz of discussion arose. If they had a memorial, it had to be something grand, something "to put Vegreville on the map!" as George Nestman used to always say. But what kind of object or monument?

"Big Foot" Nestman (nick-named after his whopping size 14s) was a tireless promoter for the community. The retired businessman stood to his full six-foot-four and cleared his throat. "What we need, Mr. Chairman," he boomed in his strong bass, "is to erect a monument that would be a striking tourist attraction. Something that people would come to take a picture of! It's got to be big. It's got to be the biggest!" He pounded the table with a ham fist. Cups rattled. "As I've said many times before, I'd like to see a huge horse--say 30 feet high--made of fibreglass. We'd build a tourist booth beside it, and then we'd have signs along the highway at either end of the town saying 'Get your information at the horse's mouth'."

Few people laughed. They'd all heard George's "horse's mouth" slogan before. George deliberately ignored the local plumber at the back of the room, circling a finger beside his ear in a "you're crazy!" gesture.

"Why a horse?" someone asked.

"Well, we owe a lot to the horse!" George roared. "It broke up the land and brought industry in."

A suggestion from Nestman, also dubbed "Mr. Vegreville", always provoked lively discussion. Amid the buzz of voices, lawyer Joe Blonsky stood up and straightened his tie. "How about a pioneer with his horse and walking plow?"

George waved a massive hand and shook his head.

"Or better yet, a Red-Coat! A North West Mounted Policeman on the horse."

"No, no, Joe. North Battleford's already got a Mountie on a horse."

Other ideas came and went. Kay McKenzie sighed. Couldn't they find something more unique--something no other community would think of? She considered the town's cultural heritage. She thought of the gifts of Ukrainian Easter eggs which she had so often prepared for visiting dignitaries--four or five pretty pysanky arranged on a platter with a thank-you note or greeting in the middle. They had always been well received. "Maybe. . .," she thought. Never one to hesitate, she asked the chairman for the floor.

"How about an egg?" The room fell silent. She glanced at Sister Ruth for support. "Why not build a big Ukrainian Easter egg?"

A titter spread along the tables, and a few men guffawed out loud.

George's boisterous laugh echoed off the walls. "Well, I always said, if you don't want a horse, get something different. An egg certainly would be different! "

"Well, Nestman, work on that and see what you can come up with," someone mumbled. Time was running out. The meeting moved on to other committee reports. As the sun slipped to the western horizon, the members scattered outside. Thoughts turned to the kids coming home for the weekend, the condition of the crops, or the accounts that were falling behind.

EGGSACTLY WHAT'S NEEDED

Smothered in sniggers, the idea of a big egg was not even recorded in the minutes of that July meeting. All that was left in writing was that Mr. Nestman's suggestion of erecting some kind of monument was "favored by the members and deferred to the next meeting for discussion."

But Mrs. McKenzie, who became Vegreville's mayor in 1989, said later, "It was the best idea I ever had!" Dr. McGregor of the Century Committee, guest speaker at the next meeting in August, encouraged the Vegreville Chamber to get on the band wagon with a centennial project.

By the time the September meeting rolled around, the big egg concept had caught on. "This isn't a bad idea," Ralph Gorrie reported. "It might be something we could get great mileage out of."

The membership finally approved the Pysanka concept in principle. Joking turned to planning for the original committee of four--P.M. Shavchook, George Nestman, Jerry Wilde and Ralph Gorrie. Their job was to look into financing, for without money there would be no project.

As a school district administrator in Lac la Biche and Vegreville, Ralph had worked with Edmonton architect George Chernenko. He knew him as a Ukrainian who had escaped during the war, a hard working man with a devotion to his profession. He would be the logical person to design an egg.

Ralph left the proposal with Mr. Chernenko and reported to the October Chamber meeting that the architect would come up with a plan for the Easter Egg project within a few days.

A week went by. And another week.

Finally Ralph called. "Say, George, how are you coming with the egg design?"

For a long moment, there was silence on the other end of the phone. "Gee, Ralph, I didn't think. . .Are you really serious? You want me to design a big egg?"

"Yes! This is a project we really want to do."

"I'm sorry. . .I thought you were putting me on! Let me see now, I think your request is buried under some papers here on my desk."

Ralph couldn't help but laugh. "No sir, it's not a joke. I know it's an unusual thing to require of an architect, but we're after a big egg. We even have a drawing here by one of our members, George Nestman. We'd like the egg standing on end, to serve as a tourist booth."

"Yes, yes. I see now. A large structure, light-weight, durable and coloured in a Ukrainian design. Hmmm. I'll get busy on it right away."

The architect would not be the only one to dismiss the idea as simply a joke. But the Chamber persisted. They agreed with columnist C.D. Evans, who wrote in The Calgary Albertan, " . . Let those of you who scoff and mock this worthy community undertaking stay their snide asides and muffled guffaws. If the dreams of the Vegreville visionaries become reality, the skeptics will have egg on their faces. The yolk will be on them."

BUILD US AN EGG

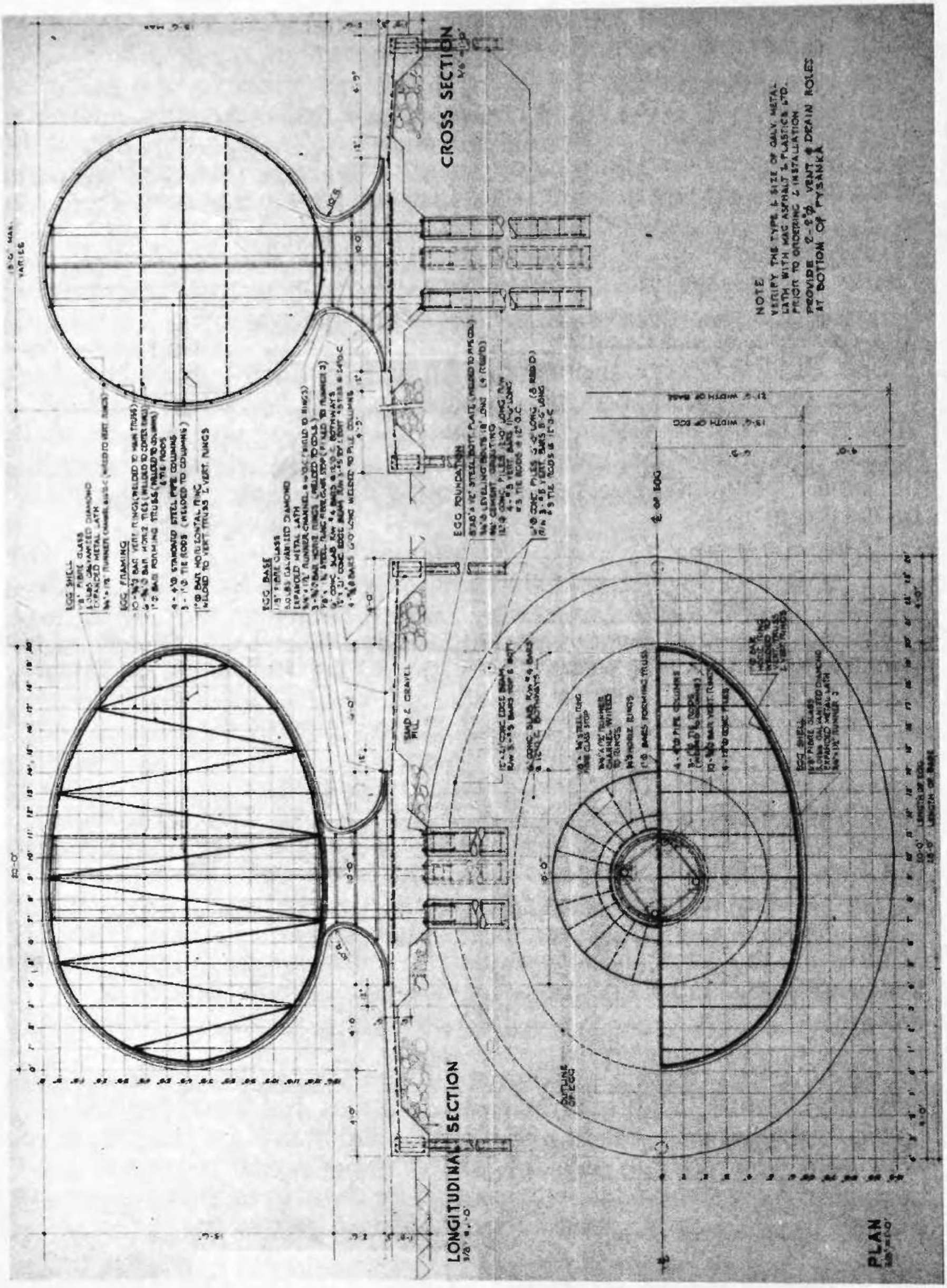
Designing a huge egg was something George Chernenko hadn't come across in architectural school. He faced not only the challenge of constructing a unique shape, but a tight budget to do it in.

The architect drew up blueprints of the egg, laying on its side. The committee argued they still wanted it on end. "No, no," Chernenko insisted. "It won't work that way. I'm giving you these blueprints free, but if we change it I'll have to charge you for my work. We'll compromise and tilt it at an angle. How's that?"

Meanwhile the committee requested an extension on the deadline for the grant application, and looked into other possible sources of funding.

As construction materials, Chernenko investigated fibreglass, asbestos, gunite, concrete and even ceramics, but found flaws in each. Problems with weight and size stymied him. Most puzzling of all, how were they going to paint it? The Chamber wanted a bright Ukrainian pysanka design which would be durable--in fact, they wanted the colours guaranteed for at least 25 years.

Fall turned into winter, winter into spring.



The first architectural blueprints for a big egg showed it placed sideways.

One design firm after another joked about the proposal, but none were able to meet the challenge. Chernenko consulted Paul Sembaliuk of the Public Affairs Bureau. As a graphics designer and information officer, Paul had wide experience in preparing design displays for the provincial government.

"Look, George, this design of yours really lacks imagination," said Paul. "For any project to be successful in tourism, it has to achieve national recognition."

"I know, I know. And maintenance--heck, Paul, I just don't have the time to put into it. Why don't you take this thing over?"

Maintenance continued to be the number one hurdle. Paul knew how concrete cracks in the hot summers and cold winters of this part of Alberta--it could be seen on any sidewalk. Mosaic would be forever flaking off. The Vegreville project had a budget of $15,000--why, a painted egg would cost that much in maintenance every year!

But what about aluminum? Paul had been working with Permaloy Enterprises, an Edmonton graphics company which specialized in anodized aluminum. He had been designing a sign system for the Province of Alberta, to replace the hodge-podge of signage that was found on government buildings. The new signs were being manufactured by Permaloy, with their design and colour permanently etched into each surface.

On one of his many trips to Permaloy's main factory in Ogden, Utah, Paul began talking about the Vegreville Pysanka project. This anodized aluminum could be produced in a number of colours, and it was guaranteed not to peel, chip, crack or fade for years.

Paul heard about a university professor, Ronald Resch, who had the expertise and tools in the latest computer technology to build a giant egg structure. They said the professor had spent years in research but hadn't actually produced much yet, and might welcome an opportunity like this.

Paul zipped over to the University of Utah with some sketches.

THE PROFESSOR TAKES A JOB

"At last, I think we're getting somewhere," Ralph reported to his committee one night in May. "This anodizing process can coat aluminum guaranteed colourfast for 25 years. Probably much longer.

Paul Sembaliuk from the government says it's virtually maintenance free--there's no washing, and ice won't stick to it, and it can't even be scratched.

"And now get this!" Ralph flashed his boyish grin."There's a fellow at the University of Utah who is interested in designing a computerized egg simply because it's never been done before."

"Good, good! But it's too bad we couldn't keep it in Canada. . ." said Peter Shavchook.

"I agree, but we have to take this expertise where we can get it."

Jerry Wilde nodded. "I think in this case we have to swallow our national pride. This professor might be our saviour. But how much is it all going to cost?"

"I don't know yet," Ralph sighed. "But it looks like I'll be spending another summer working on this big egg."

A meeting was organized with Professor Resch, architect George Chernenko and Paul Sembaliuk. Resch explained his work in constructing freeform shapes in modular designs by a system of folded plates. They agreed that given the scale of the egg, and a triangular facet of one to two feet on an edge, from 30 to 50 triangles would be needed to encompass the shape. This would give it a smooth appearance, even though it would actually be a many-sided polygon. Facets of this size should be sufficient to accurately render even a complex Ukrainian pattern.

But one problem remained. How could the exact geometries of the facets be determined?

Professor Resch offered to do a preliminary design study to determine the actual geometries and colouring of the facets in the pattern. This study was necessary, he declared, to set a budget for the completed egg. His fee would be $3,000, and he would deliver the working proposal by the end of July.

If all went well, the Pysanka could be built by mid-September, providing the Chamber did its part by supplying a base for the structure, and some community labour to erect it.

Permaloy Enterprises proposed to undertake the project at cost. They offered a maximum price of $25,000, including the professor's fee.

Once again Ralph met with his committee. "Well, fellows, what do you think?"

"Can't they give us a firm price?" asked Jerry Wilde. As an accountant, he was used to considering the dollars and cents of things.

"Not until Professor Resch has finished his design study. But Permaloy says if it runs over $25,000, their company will assume the extra costs. Seems they've taken this venture on just because it's so unique. I suppose they can see the potential."

Peter Shavchook grinned and waved his fist in a victory salute. "This is the best news we've had all year!"

"Settle down, P.M.," teased George Nestman. Shavchook may be retired, but he had the enthusiasm and energy of a teenager. "But say, Ralph, do you really think they'll be able to do the whole thing just over the summer?"

Ralph shrugged. "I sure hope so. The Centennial will be over and we'll still be talking about 'preliminary studies'. Other towns will soon be dedicating their projects. . ." He ran a hand over his short blond hair. "Maybe we'll have to ask for more time."

"And more money," stressed Jerry. "I think we'd better apply for more from the Century Committee. This thing is getting bigger than any of us dreamed of."

Summer came and went with little to show. Still, Ralph and his committee did not become discouraged. "The Easter egg project is thought to be the only one of its kind in the world both in idea and structure," he maintained. "It will tower some 15 feet and will be made of about 1,500 pieces." Time extensions and further funding to $20,000 was granted by the Century Committee, provided that the project actually went ahead.

Erection was now expected to be by the end of October. The particular type of aluminum needed was ready and waiting at the Permaloy plant in Ogden, Utah. But while enthusiasm for the project grew, so did the problems.

The days were growing shorter. A prairie winter was setting in. "Where is that big egg?" asked townspeople. Many grumbled that this was a foolish waste of $20,000, money which could have served the community better another way. "We admit the difficulties have mounted with the complexity of the project, but the good professor is

doing his best," stressed Ralph and his committee. "In fact, he's coming up to report first hand on his progress."

Hopefully things were going well down there in Utah. The supporters of the World's Largest Easter Egg project had only one thing left to rely on--faith.

****** 5 ******

THE PROFESSOR'S PROBLEM

Ron laid out another two dozen eggs in the tray on his desk. "I'm becoming obsessed with the things!" he chuckled. Who'd have thought he would be out buying eggs just to study their mathematical form? Who'd have thought no scientist before him had ever determined the exact geometry of such a common shape?

THE PERFECT EGG

Ron rolled the eggs around with his finger. Every one, slightly different. Like fingerprints. So, now he had to develop his own mathematical analysis of that shape, a shape that seemed so simple yet defied definition.

Didn't anyone have the description of a perfect chicken egg? A sudden idea popped into his brain. What about egg marketers? He snatched the 'phone and called the U.S. Department of Agriculture. "You have a grading manual? Wonderful! Send it to me immediately!"

But when the egg grader's manual arrived, it proved to be another frustration. There were a few diagrams and a ratio, but really no formula for the ideal egg.

Another brain-wave surfaced. Ron photographed the egg grader's "ideal egg", and other eggs which looked almost perfect and digitized one using only nine points from top to bottom. Then a mathematical B-spline was developed to put a curve through those points. Soon his office walls were papered with a series of two-foot wide drawings. He studied each poster by the hour, changing the sillouette ever so slightly by eye.

He then called in everyone around to view his dozen big eggs. "Which do you think is the perfect egg shape?" he asked each person. At a glance, the pictures all looked identical, as less than a quarter-inch

difference existed among the 12 shapes. But to his surprise almost everyone chose the same egg.

"Alright, this is going to become our statistical sample," he declared. "Now, Robert and I will have to develop mathematical models for this geometry. We may be pioneering something here." He rubbed his eyes and flipped on the computer terminal.

SIMPLE SHAPE, COMPLEX JOB

As the months of his Preliminary Design Study slipped by, the simple job grew into an increasingly complicated one. It soon became obvious this was no summertime fill-in job for Professor Resch.

In the course of his designing career, he had never found anything so challenging as building an egg. He was working with a pre-defined structure and it couldn't be a random shape. If only it was as easy as the first time in his life he'd built an egg. His mind wandered back to the day he was Humpty Dumpty, winning first prize in the Hallowe'en parade in his hometown, Independence, Missouri. That egg had a framework of wire covered with an old sheet with a face painted on it. It was harnessed on his shoulders, and his legs stuck out the bottom so he could march in the parade. How proud he'd been of that costume!

Ah, yes, life had been simpler as a 12-year-old in Independence--a city which boasted of producing a United States president, Harry Truman.

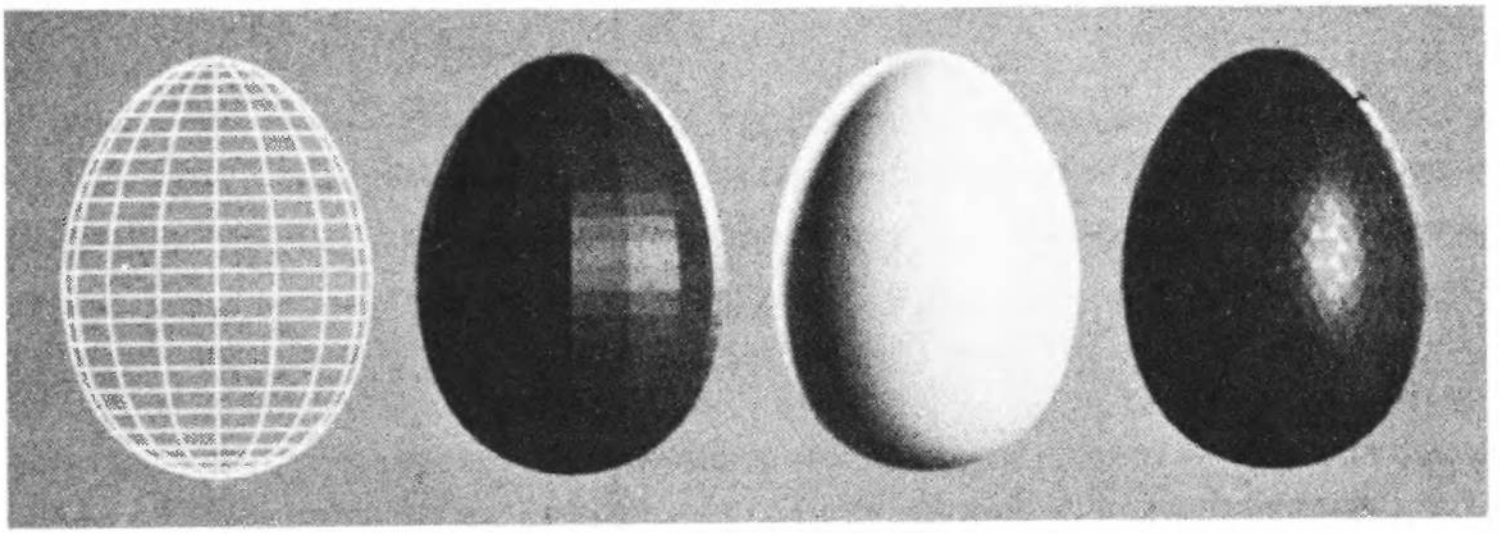
After high school Ron had earned a scholarship in sculpture to the University of Iowa, but felt torn between studies in art and engineering. Industrial Design combined both the aesthetics of art and the discipline of science, so he'd graduated with a degree in that. But except for one year teaching art, his work had been always been in the technical fields. Now, at 35, he was a computer scientist on the faculty of the University of Utah, and had been recognized for his research in modular structures.

He'd done well in his career and was pleased with his accomplishments, except he had little concrete to show of his work. This egg job would do it--if it didn't kill him first!

The Canadians had had the finished product in mind, a colourful, complex motif that would last for years to come. He convinced them that the geometric definition of the egg had to come first. Then he

would find a pattern that could be fitted onto the parts that together would form the right curvature.

He hoped they had understood his explanation of the problems. Once he had defined the form in a two-dimensional silhouette, he'd have to make it three dimensions. An analytical definition had to be developed in order to break it up into pieces. And each of these sub-parts had to be defined, in order to be reassembled. The biggest piece that could be handled easily would be say, four by eight feet. So he had to develop a mathematical model of that part in relation to the total shape. Suddenly this job had been booted into a new level of complexity! And no one had ever done it before.



This computer generated image by Robert McDermott shows the progression of his mathematics for the Vegreville egg.(Photo courtesy of Annette Del Zoppo)

FATAL ASSUMPTIONS

The assumption that he could readily find a definition of the shape of a chicken egg was not Ron's only mistake. He made a second fatal assumption--that a few small changes to his existing programs in folded plate structures would be all that he needed to design a big egg.

By fall, he looked back on the most frustrating six months of his life. All he'd wanted was to modify his existing computer simulations to make them conform to an egg's surface shape. But it eluded him.

He had tried one technique after another, with the loyal help of graduate students Robert McDermott and Jim Blinn and many others at the university. The folded plate structure could be viewed to have some of its points approximating an inner surface, and outer points approximating a second surface. They'd struggled to get the points on

the inner or outer surface to conform to the egg model. They'd even simulated blowing it up with air.
His folded plate forms had been utilized to construct numerous three-dimensional structures before. It seemed there was an infinite variety of forms which could be created by his program, but this wasn't one.

One day, after meditating for an hour before dawn, Ron called in Hank Christiansen, a professor in civil engineering. For months they had worked together with Hank's program, an analysis of movement, and Ron's own program of modular structures.

"I think it's time we took a hard look at what we're doing here," Ron said. He pushed aside the papers on his desk and leaned on his elbows. "The folded form clearly will not move exactly to this surface."

"For sure!" Hank nodded.

"Yet you know, I've never really proved to my satisfaction that this thing is geometrically impossible!" Ron drummed his fingers on the desk. "But at some point we just have to stop pushing it. Maybe the mathematical model is faulty."

"Uh-uh." Hank shook his head. "You know the mathematics is correct."

"Well, if it isn't that, the problem might be certain input of that mathematics to the program."

"C'mon, Resch."

"I'm thinking maybe we need a whole new approach. . . "

Hank whistled. "All I can say is, it's a good thing you're divorced!"

"What do you mean?"

"Your girlfriend must be ready to pack up and head back to California. You're in the lab for 18 hours at a time, Sundays, Thanksgiving, anytime. Look at you, you're a wreck!"

Ron ran his fingers through collar-length hair. "Yea, I s'pose so. People probably think I've got this hippie look because it's the style of the subculture. But that's not it. I just never get time to shave!"

"You look like a mad scientist!" Hank snickered.

"Not quite mad. Not yet." Ron stretched and leaned back in his chair. "But it's as if you've got a shotgun and you're trying to hit a tin can 10 feet away. You miss, and you miss, and you begin to say, 'What is this? A phantom?' Every day it seems within reach, yet we never quite make it!"

What was he going to report to the Vegreville people when he had to go up there next week?

THE PEOPLE AND THE PROFESSOR

A strange mixture of excitement and apprehension filled the talk of committee members headed down Highway 16 that November evening. It grew with every mile to the city, where they would meet the man who was instrumental to their egg project. Was this American professor from far-away Salt Lake City sincerely behind their project? Would the costs be beyond reach?

They found the building at the University of Alberta where the meeting with Resch was to be held. Virgil Moshansky, mayor of Vegreville, Jerry Liden, manager of the local Co-op store, P.M. Shavchook, Jerry Wilde, George Nestman and Ralph Gorrie filed into a lecture theatre. There, Vic Justik of Permaloy Enterprises introduced them to the good professor.

A slight, bearded man dressed in blue jeans, Professor Resch didn't fit the picture the delegates had expected. But they soon warmed to his easy-going, almost languid manner. "Just call me Ron," he drawled. "Everyone does."

The professor opened his case and pulled out a stack of photographs and drawings. "For many years I've been experimenting with geometric patterns and folded plate systems," he said. "With a unique computer aided design technique which I've developed, it's possible to continuously vary the geometry of a space frame to produce structures other than the usual flat or spherical space frames. You see, the geometric form of building materials basically consists of linear members and planer sheets. I had to consider what minimal distortion of a sheet would result in maximum design capabilities, and in so doing I developed this program." He gestured to a large drawing of an igloo-like shape. "Here you have a computer simulated image of a structural dome which can conform to any desired shape.

"When I first set out to solve your egg problem, the common jocular query I heard was: 'So, what's so difficult about building a chicken egg? Chickens do it all the time without the slightest thought'."

Laughter echoed from the small group in the empty hall.
"Well, to begin with there are the issues of size, shape and pattern. If you needed an egg small enough that it could be turned on a lathe, then a skilled artisan could shape it by direct eye/hand coordination. But blowing it up to this monolithic size is a different matter. Here we get into the issue of a formal mathematical description of the shape, and the geometry of its component parts.

"You see, when a large surface must be physically built, there is the intrinsic need that it must be fabricated from some assemblage of smaller parts. Even if it is to be cast in concrete as one piece, still the form work is usually made of large numbers of small parts. If the large surface required is to be flat, or even a surface which can be made by bending a flat surface out of a plane as in the case of cylinders or cones, then there is a rich body of knowledge known as tiling that describes the shape of the parts and the rules for putting them together."

Ron unrolled a computer drawing. "For manufacturing purposes, it would be both desirable and economical for the parts to be identical in size and shape. Yet due to the nature of things, there are numerous surfaces which, when built in three-dimensional space, cannot possibly be constructed of pieces that are all the same size and shape."

George Nestman studied the angles on the diagram. "Sounds like a lot of hot air to me," he mumbled to Virgil Moshansky. "Can you follow him?"

The mayor shrugged. "I'm a lawyer, not an engineer. But actually, it's quite fascinating."

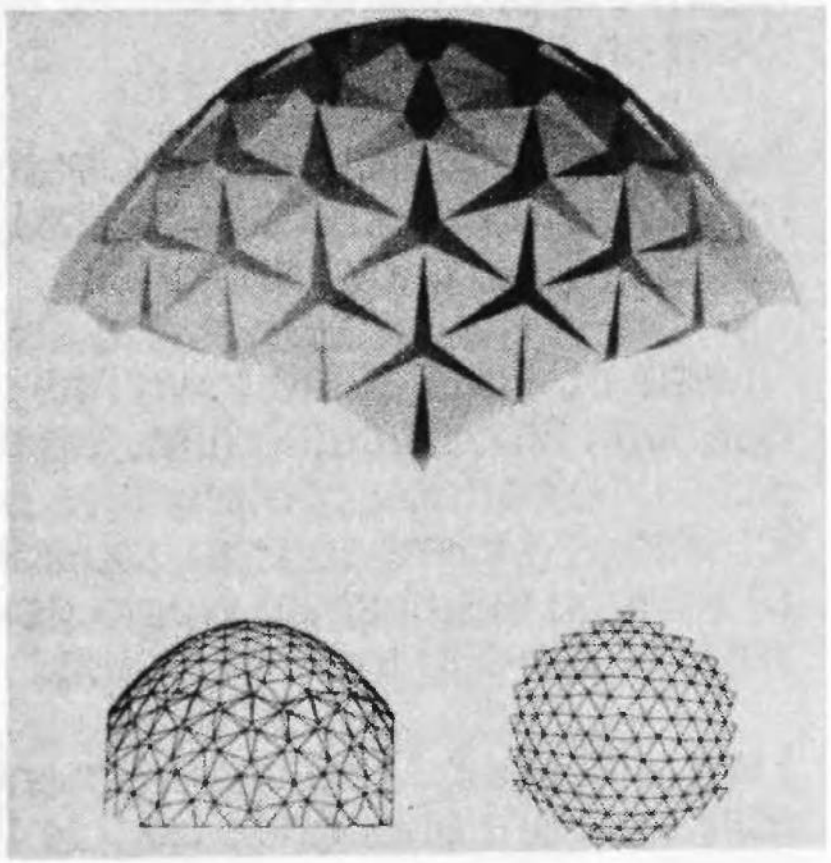
George only grunted. The professor continued.

"One way of illustrating this is to imagine a rubber membrane with a square grid drawn on it stretched over a drum. If you inflate the drum, the membrane and the grid stretch, and the pieces are no longer identical to each other. Some relative change in the measurement of the grid work must take place either in terms of the angles, areas, or the edge length." Resch stroked his moustache. "Okay, so what are the possible solutions?

"Assuming that you wish to keep some characteristics of the pieces consistent, there are three methods for addressing this issue. The most common method of transforming a regular two dimensional pattern onto a surface in three dimensions varies the edge length and areas of the tiles while preserving the angles at the corners. This is called conformal mapping. A common example of this can be seen in the mapping of latitude and longitude lines on a sphere. While this method preserves the angles at the corners, if I used it to define the egg geometry, the resulting pieces would vary so much in size and area that the actual fabrication of the model would be far and beyond your budget.

"A second method is best seen if we imagine our grid to be a fish net. In this example, we allow the areas and angles of the pieces to vary while keeping the edges of the grid the same. This method of transforming a 2D regular grid onto a surface in 3D can be very helpful in some instances, but again it creates a multitude of pieces with different shapes.

"The third method is the one I am developing to use for this project. My work seems to be unique in finding ways of achieving the 3D transformation while keeping some tiles of the pattern constant in terms of their angles, areas, and edge lengths. Of course, the remaining tiles of the original pattern must change in terms of their areas and/or angles. So this method produces two groups of tiles within an overall pattern: those that change and those that do not."



George Nestman shook his head. "Not sure I follow you, sir. What I want to know is, are you satisfied with the results to this point?"

Professor Resch's voice dropped. "I must confess, gentlemen, I have run into problems. Let me explain. . . in the early 60s I discovered I could move special cases of regular grid works out of plane to approximate a general surface in 3D space simply by folding along the lines of the grid. Drawing upon this knowledge, I initially proposed to build your egg from one of my folded structures--a dome at either end with a barrel shape in the middle. But I've tried numerous

approaches and haven't yet been able to fit these folded forms into the desired shape. . .I'm probably going to have to create a new geometric design altogether."

His lean chest lifted in a deep sigh. "At the moment this has got me stumped. I'd have never taken on the job if I thought I hadn't already solved it. This comes under the category 'Famous Last Words'!"

"You're not giving up?" George asked with urgency.

"Oh no! I've found this problem as difficult as it is unusual, and that appeals to me." The professor grinned. "Just give me a few more months, gentlemen."

The delegates looked at one another. What else could they do? Professor Resch, with his combined experience in art, architecture and computer science, was the right man. And he was on the track of something that seemed destined to become world-renowned. He was their only hope.

A couple of days later, Resch addressed another small gathering of Vegrevillians, this time in their own Town Administration Building. Again the professor explained all that was involved in his work to build them an egg.

A reporter from Vegreville Observer tried to take notes, but found it all mighty confusing. When he had to write up the story for the paper, he could only give impressions.

"It was obvious at the town hall meeting that the answer to the age-old question 'Which came first, the chicken or the egg?' was at hand," he wrote. "When the complexities of the construction of the Vegreville Easter egg came to light, including mathematical and geometrical problems, the chicken would never have come into being if it had to wait for the egg to be invented."

He concluded, "The involvement and intricacies of design and structure are enough to boggle the minds of us simple townsfolk."

IF AT FIRST YOU DON'T SUCCEED. . .

"Welcome back, Prof. How'd the trip to Canada go?" Robert McDermott, who was taking a dissertation in mathematical surface description, tossed his jacket on a chair.

"Well, we got an extension 'til March 31st. But I don't think those folks understand at all what we've been through on this thing. They have no idea of the complexity of it." Resch rubbed his eyes. "You know, on the plane coming back I had time to think. I realize now I made some serious mistakes. First, I assumed that in the vast world of geometry, someone had defined the chicken egg. But then, I guess no one before had ever needed to--certainly the chickens didn't!"

Robert laughed. "Didn't you say Sir Isaac Newton referred in his memoirs to defining the shape of an egg with calculus?"

"Yes, but he didn't quite get to it. Either that or using calculus was just too difficult. Anyway, my second mistake was assuming that my folded plate structure could conform to almost any surface. I thought all I'd nee(were a few small changes..."

"Yea," Robert snorted, "I remember you said the dome you'd built for the Chicago exhibition looked like the end of an egg, so all you'd do was build two ends and put a barrel shape in the middle--and presto! There you are."

Ron shrugged. "It seemed to have infinite possibilities."

"So what did you tell the Canadians?"

"I requested more time. And I've decided we'll give up the folded plate structure and try something completely different."

Robert groaned. "Just abandon hundreds of hours of work?"

"I know, I know. We're six months into this project, most of the money has been spent, their centenary is over, and we're starting from scratch, taking on a new system with no tools under our belt. But I've got an idea. Call in Hank and the rest. You'll get a PhD out of this yet, McDermott! "

WHERE IS OUR EGG?

Christmas came and went. And New Years 1975. And Valentines. It was almost Easter before the professor met again with the people from Vegreville. This time, a delegation flew down to visit his laboratory at the University of Utah. A Salt Lake City news reporter interested in doing an Easter story had also come along.

Ralph Gorrie, Mayor Virgil Moshansky and Vic Justik from Permaloy came--frankly, on a witch hunt, Ron thought. He sensed their skepticism. Almost hostility. But he understood why. Their community was getting impatient. This project should have been finished by now. And they had spent what they thought of as a lot of money--although to him it was a meagre amount.

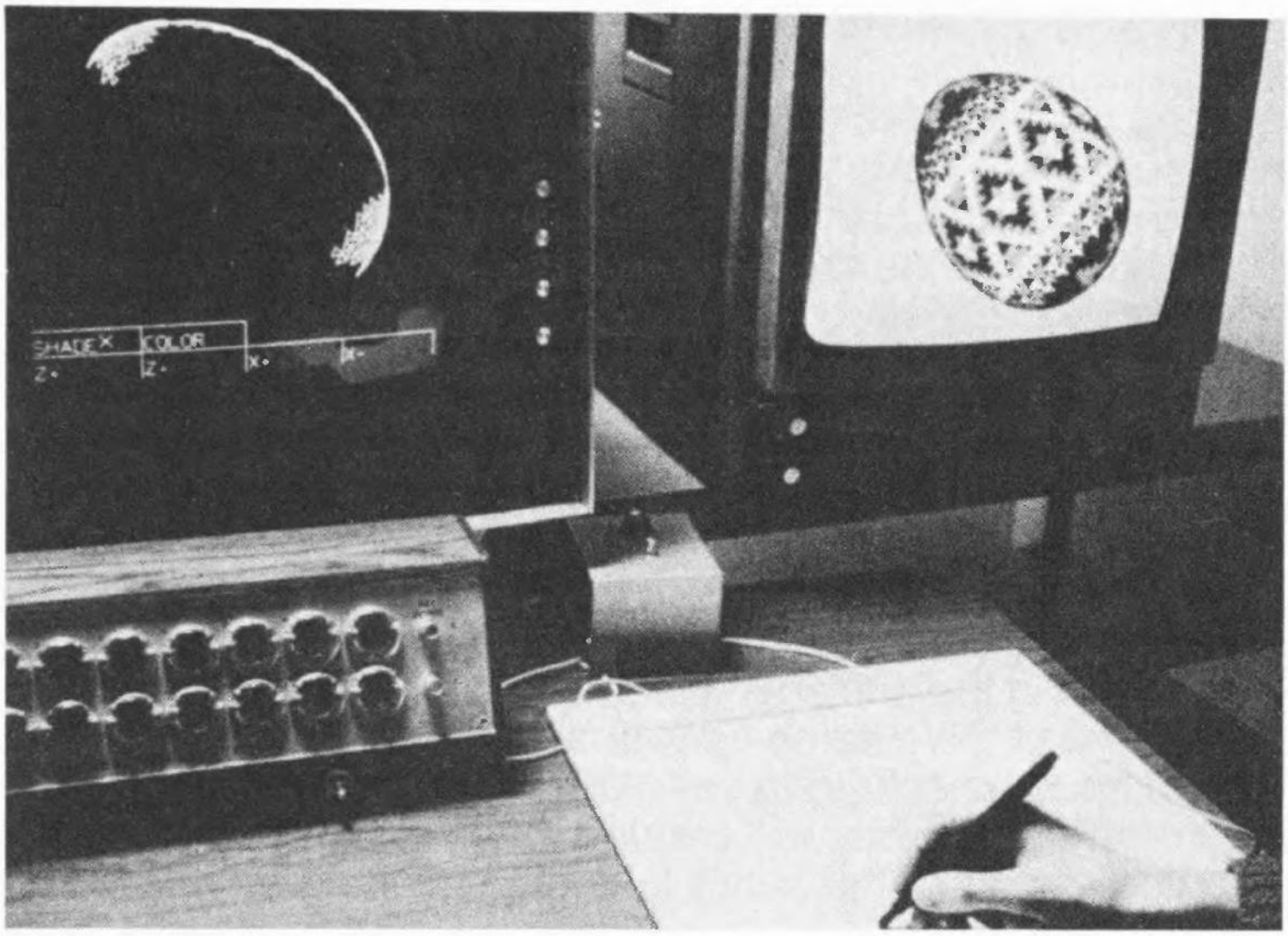
"Don't worry. I haven't been spending your funds on ice-cream cones!" Ron laughed. Actually, what they were getting was so outrageously beyond their budget there was simply no frame of reference. He had drawn upon years of research in computer graphics and design at the university. And all kinds of experts. This background knowledge, plus financial support from the Department of Defence, allowed him to work on the egg. If it hadn't been for funding from the advanced research projects agency of the U. S. government, the ability to do this project just would not have been there.

By now, however, Ron had a personal mission to accomplish. He felt morally committed to seeing this project through. "Excuse the mess," he said, pushing aside his paperwork. "But I've been working here day in, day out. "

He tried to explain the winter's work in a few words--how they'd abandoned the original geometrically constrained program and after mathematically defining the egg shape, had developed a new program. This series of modules was based on equilateral triangles. In order to follow the changing curvature of an egg, he'd added a second design, the three-pointed star.

Ron demonstrated the model on the computer screen. "What this new design keeps is my concept of constant and variable cells from a regular grid pattern. Each of these stars is an equilateral hexagon composed of three isosceles triangles whose bases form a fourth interior triangle," he said. "The design will stay constant except for the dimensions of these interior triangles, which change to make the stars narrower or wider. This pulls the design around the egg's curves. The sides of the equilateral triangles are all the same size--12 inches long. Six equilateral triangles surround and thus define equilateral hexagons that have constant edge length but variable angles and areas."

He glanced up. Only blank faces and frowns. "This uniformity will distinguish your egg mathematically--it may be the only structure ever built using a constant module on a three-dimensional surface!"



At first the Vegreville delegation visiting the University of Utah was disappointed. All they saw was a simulated pysanka on a computer screen. (Photo by Annette Del Zoppo)

Feelings changed when they watched Professor Resch in his cutting laboratory. (Photos by Annette Del Zoppo)

These Vegreville folks were hard to impress.

"We created an algorithm for distributing the equilateral triangles on the egg's surface. It starts with six triangles around the centre pole, but then as you come down on the egg it gets increasingly complex." He ran a finger down the image on the screen. "Each facet is controlled by the previously positioned one. Each is defined by a precise angle--if you change one, it changes all the rest. To do this, I had to find a string of numbers accurate to the fifth decimal place." The men nodded at one another, but Ron still read skepticism on their faces.

"Once I and my assistants had developed this module system, then there came a very complicated line drawing since there are 3,512 pieces composing the surface." He turned to a computer print-out pinned on the wall. "We came up with a complex drawing, like you see here, but without the colouring yet. With Paul Sembaliuk up in Edmonton, we got to work and created a design in three colours. Once we finalize this pattern we'll take the pieces to be anodized--"

"Anodized? What's that?" interrupted the news reporter.

"It's a technique for chemically implanting a dye on the surface of the metal and then sealing it so it won't oxidize. It'll stay quite permanently. Right, Vic?"

The representative from the Permaloy company nodded. "You might have seen this kind of finish on door frames, like the bronze coloured frames on high-rise buildings. We'll be working with gold, silver and bronze, since those three can be guaranteed to last the longest. "

Ron studied the expressions of the Vegrevillians. They looked like sixth-graders who'd accidently stepped into a college math class.

FINDING A PATTERN

"Only three colours?" asked Virgil. "Pysanki are always multi-coloured."

"Like Vic said, the only ones we can be sure will last for decades without fading are bronze and gold and the natural silver. But I think you'll be pleased with the design."

Ron explained how creating a pattern was basically a colouring-book problem. Each part of the pattern had to be commensurate with a

physical facet. "You start with 3,512 triangular cells, and each can only be one colour. There is a finite number of unique designs that can be created, but that number is very, very large. Three base colours and 3,512 facets means three is the base and 3,512 the exponent. That's a lot of pattern possibilities!"

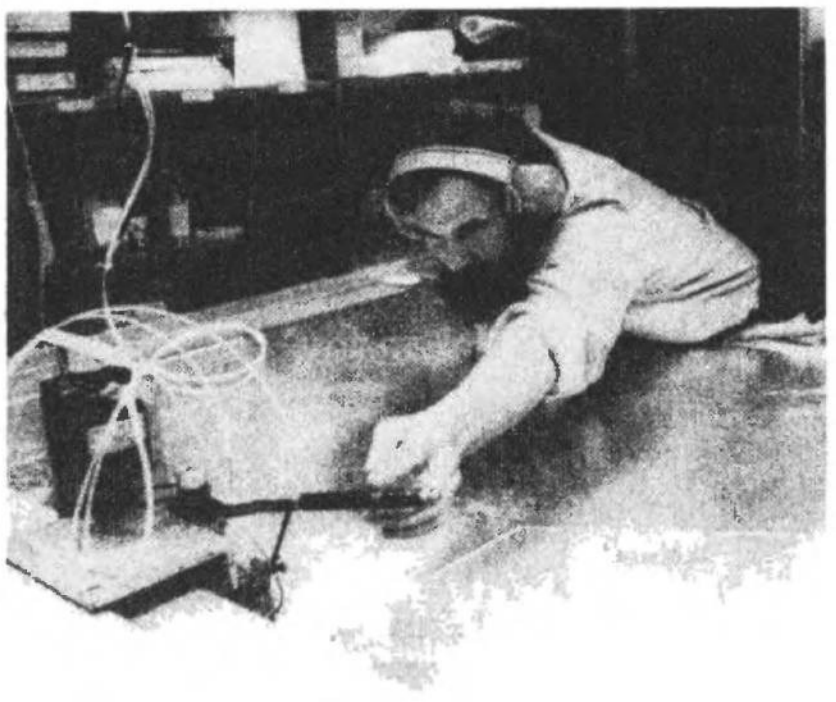
"You mean, three to the power of 3,512. . ." Ralph queried. He wrote the imaginary figure "3^{3512}" with his finger on the desk.

Ron laughed. "Like the number of leaves in a forest! Obviously we're not going to systematically try all the combinations, we're just after something that looks most Ukrainian. I sent a grid to Paul, and basically said, 'Okay, you can use three crayons. Colour it in.' He devised a number of patterns, and I did too, and then we integrated them into what you see here."

Ron paused to let his guests study the three-coloured diagram. "It wasn't easy working under the constraints of our geometry, especially since Ukrainian eggs are usually laid out on a square grid. Ours was on a triangle basis, of course."

"Hmmm. So, now you say you're actually making these aluminum triangles?" asked Mayor Moshansky.

Ron waved his arm. "Come here, I'll show you how it works." His visitors crowded into a room lined with cabinets and plotting equipment. A cutting table bigger than a bed dominated the room. "I couldn't find any commercial enterprise to fabricate the parts with the computed geometry we'd developed, so I made this tool with the help of the machinist here on campus. I can cut out the pieces myself with this thing. It's actually a modified drafting machine, with a numeric controlled flatbed plotter."



Resch's computer controlled plotter cut thousands of aluminum pieces (Photo by Annette Del Zoppo)

He turned it on and his voice rose above the hum. "This machine is computer controlled, accurate to five one-thousandths of an inch. Finer than a pencil line."

He noticed some eyebrows raise. "Watch," he said. "But I warn you--it's loud. This was not really designed to be a milling machine."

The tip scored lines into the aluminum sheet with a screech like a chain-saw on metal. The visitors leaned over to see the fine cutting. Ron knew he'd finally won their approval.

By the time the Vegreville delegation was ready to leave, they babbled about the finished egg like children anticipating a Christmas toy. They had approved the design, and even had a triangular facet to take away. Something tangible to pass around among the folks back home. The professor sighed with relief.

In the quiet office, he sat with his head in his hands. He'd sent the Canadians away happy, alright, but they didn't know the whole story.

There was still potential for errors. Who was to say the plotter would actually cut as accurately as the computer dictated? Five one-thousandths of an inch wasn't much to play with! Ron just couldn't do it all himself, either. He'd have to hire students. More money. And when it came to the anodizing--the process actually removed metal. Eaten away in the acid baths.

Then there was physical drift in their manufacture. . .

He'd first taken on the contract (for what seemed a paltry sum of $3,000) believing he could easily present the Vegreville people with the structure design. Then he'd leave it to them to build and decorate. But it had soon become apparent there just wasn't anyone else to build it. He'd looked into contracting to Boeing Aerospace, but their set-up charge alone to machine the tiles would have exceeded the Vegreville budget by thousands of dollars.

Now, he was not only chief designer and engineer, but also chief builder. Assuming there would actually be something to erect!

He glanced at his watch. Midnight. "Stop fretting, Ron, and get home to bed," he scolded himself. "You'll be gray-haired before you get to Canada to build this wretched thing."

****** 6 ******

GIANT PYSANKA, GIANT HEADACHE

Away back in June, 1974, when Professor Resch was still just beginning his preliminary studies, the Vegreville Chamber of Commerce requested an additional grant from the Alberta RCMP Century Celebrations Committee to help cover the professor's fee.

They agreed to provide $1,500 more, and a further $3,500 if the studies proved that the project would be feasible and completed in 1974. That would bring the government's total contribution to $20,000.

However, if the professor's studies showed that the project was no longer practicable, then the total grant up to that point, $15,000, would have to be returned to the Committee.

Almost a year later, when close to a quarter of a million dollars had been spent in time on the project, another grant of $5,000 came from the Century Committee. At $25,000, this was the largest grant for an individual project in all of Alberta (the Pysanka was also considered the most unique among 163 community projects). The grant was to be matched in dollars or services by the community.

The timing rules had been stretched to the limit, too. At one point, when P.M. Shavchook requested the deadline be extended again, the Century Committee said the longest it could give was to the end of February 1975, because their committee would cease to exist after March 1st. The centenary was over.

In the polished halls of the government buildings in Edmonton, Paul Sembaliuk had to use all the diplomacy he could to keep the funding flowing for the Vegreville project. He desperately wanted to see the "monumental egg" completed. Originally, he'd hoped Vegreville could produce something worthy of national recognition--but now he could see this Pysanka was going to achieve *international* recognition.

He also felt a responsibility to protect government funding. A man in his position danced to a political tune in the civil service arena, the intricacies of which neither the Vegreville people nor the professor seemed to appreciate. He watched over the project at every step, while time and again defending it to keep the government satisfied. After the centenary deadline was past, and Vegreville's project still dragged on, the Minister retained the director, Dr. T. MacCallum-Walker, for the coming year just to hold the funds in place for the community. "You let me down, and it's my job and your job!" the Minister told Paul.

"I'VE HAD IT!"

More than once, however, the whole effort was almost aborted.

Permaloy Enterprises, the Edmonton firm which had stuck its neck out in the spring of 1974, almost gave up a year later. In taking on this contract, the company had become an intermediary between Professor Resch and the Chamber of Commerce. As costs and time mushroomed like a bad dream, the company considered cancelling its contract.

Ron Resch was ready to quit, too, at least once.

"I've had it!" he confided one night to his friend, Annette Del Zoppo. "I hate working through this intermediary company in Edmonton. They control what bit of money there is, and there was never an adequate budget to do what they want me to do anyway. I'll bet I will have spent $15,000 out of my own pocket before this thing is through."

"It's not like you to worry about money," Annette said.

"I've also paid for it through blood, sweat and tears!" Ron massaged his temples. "Only God knows what I'm doing for this community. They certainly don't! I'm ready to drop the whole thing."

"You can't NOT do this egg!" Annette cried. "It's just too important. How many years have you looked for the chance to get your work known?" She knew the potential of a project like this to a professor whose research remained largely unknown outside the walls of academia. Her job was promotions--in fact, that was how she'd met Ron, when he'd contracted her to document his work. This project was the first glimmer of hope in proving two-dimensional computer work could be used to create three-dimensional structures. He couldn't just abandon it all.

"I mean it, Annette. You've talked to Kay McKenzie a few times--phone her up and break the news."

"Do it yourself!"

Annette watched him dial, then hurried away to the kitchen. She couldn't bear to listen.

In a few minutes, Ron called her back. He held out the phone. "She wants to talk to you," he mumbled.

"Don't let him quit!" Kay's voice snapped over the miles. "It's gone too far now. Can't you get him to keep on?"

Annette smiled at Mrs. McKenzie's intensity, her voice,showing a mixture of panic and authority. "I think so," she reassured. "He's a walking zombie right now, but he'll be okay. Maybe one of these nights while Robert's down at the lab crunching numbers I can get Ron to come home for a good night's sleep. He's just overtired."

While Chamber members like Kay McKenzie still believed in their project, others were skeptical. In January,1975, farmer and insurance man Gordon Miller succeeded Bill Dowhaniuk as Chamber of Commerce president. Gordon was so dismayed with the way things had dragged on he was ready to quash the egg project before it hatched.

"Where are we going to get the funds to continue?" lamented the new president. "The way it's going, we'll be so in debt over this thing it'll take us years to get out."

Mr. Dowhaniuk and Co-op manager Jerry Liden argued hotly against Miller's suggestion. "There's no way we're going to scrap this project!" they stressed. "We have the biggest grant in the province. And most of the Chamber's share is coming out of community donations and volunteer labour. We'll make it!"

As a new member of the Chamber's Pysanka Committee, Miller soon joined the others in defending the egg project. There had been dissenters right from the beginning, even within the Chamber membership. People complained that $50,000 was a lot of money to spend on a big egg, of all things! They suggested it could have been used more practically, like building a community swimming pool.

"This isn't costing the community any money," argued Bill. "It's not town money being spent--it's government money. And they wouldn't

have given it to us for a swimming pool. It had to be a monument to the RCMP!"

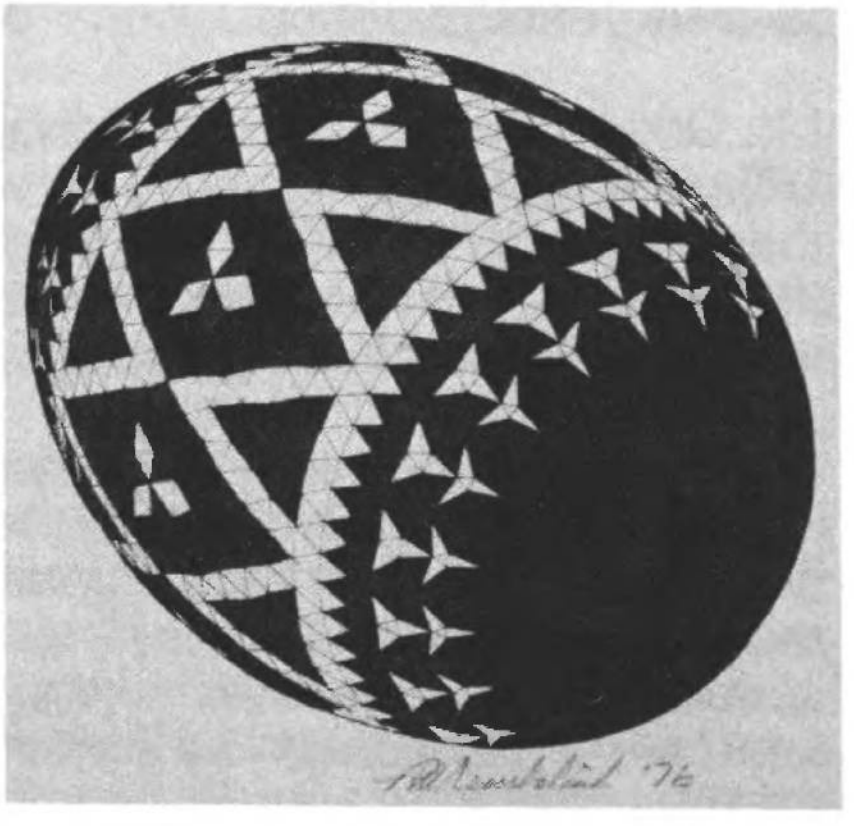
A slide show presented to the Chamber in May, 1975, may have silenced a few grumblers from within the Chamber's ranks. Paul Sembaliuk and Rick Cloutier, an executive with Permaloy Enterprises, showed the development of the project with pictures and figures to impress even the skeptics. Historical plaques in different languages would explain the meaning of the symbolism.

"Why'd you choose just those colours?" asked a Ukrainian member. "What about red? Every typical Easter egg has to have red!"

Paul nodded. He'd already heard this objection plenty. "You know, the earliest pysanki were only two colours, made from natural dyes--orangy yellow to dark brown. I agree it would have been nice to have all the traditional bright colours. But only gold and bronze will retain their intensity, along with silver which is clear anodizing just to protect the aluminum from oxidizing. You wanted this design guaranteed to last at least 25 years. Well, we predict 50 or 75 years. Totally maintenance free!"

He clicked onto another slide, showing the plant at Ogden, Utah. "At this very moment, hundreds of facets are being prepared at the Permaloy plant. An Edmonton firm, Cessco International, is building the internal structure--that's an incredible design in itself. In fact, Cessco is ready to install the base for the monument as soon as the spring allows."

Afterwards, P.M. Shavchook bubbled with enthusiasm at a chest-high coloured diagram Paul left of the proposed Pysanka design. "We'll have to get this picture displayed in town!" he declared. "I want everybody to see this magnificent egg!"



MEANWHILE, BACK AT THE CAMPUS. . .

"Get out!" Ron Resch flinched at his own harsh voice. He wasn't the type to lose his cool easily. "You've ruined another one. These things cost $50 a pop!" He shooed the apologetic student out of the cutting room and slid the wasted four-foot-square piece of aluminum sheeting from the table.

He had hired a number of students from the university to help him machine the triangles. But in the end he fired most of his help. Accuracy was imperative on the computer-controlled carbide cutting tool he'd designed specifically for the purpose. There was no room for error with a tolerance of only 5/1000ths of an inch!

Ron suspected chit-chat in the faculty lounges often dwelled upon "Resch's madness". "He's obsessed with designing this huge egg monument for the middle-of-nowhere in Canada," they'd say. "It's a heck of a job, if not impossible. Now he's cutting out some 3,000 pieces of aluminum, and he's even going up there himself to build the thing."

After dismissing the last of his student help, Ron abandoned himself to his lab for three days to finish the cutting. He stood on his feet for 24 hours a day. His head ached from wearing ear protectors, but without them the noise would have been unbearable. He had his meals brought in. His only break from the hot, stuffy plotting room was to use the washroom!

His sacrifice would be but a fraction of the estimated 12,000 man-hours put into design and construction of the Vegreville Pysanka.

The next week Ron was off to Ogden, Utah, to supervise the anodizing at the Permaloy plant. In rubber boots, apron and gloves, he scrutinized each of the pieces of aluminum being treated. Each exterior facet was engraved with a colour code for anodizing and a pattern code for assembly. An equal number of interior triangles was prepared, which would be sandwiched against the bronze, silver and gold ones.

Finally, all was in readiness for shipping. More weeks slipped by while the crates were apparently delayed in customs.

Meanwhile, the biggest question still remained--would it really work? No model had been made, the egg had been created by an experimental modular system no one had ever tried before, the

mathematics and the programs were extremely complex, and all those pieces had been cut with only a fraction of an inch tolerance. Would it all come together?

"I've done everything I can to solve the problems, but there's still potential for errors," Ron thought as he left for Canada. "Here I am, before God and everyone. . .I admit it. I'm scared to death."

A SUMMER TO REMEMBER

Resch temporarily forgot his worries when he and his four-year-old son Yon finally arrived in the picturesque little prairie town. He'd try to make this a summer holiday they'd both remember.

Settled into the Twilight Motel, he had a few laughs with Ralph Gorrie over the latest "this is no yolk!" experience. This time it had been with Cessco, the firm which had been contracted to manufacture the internal structure of 177 struts. Ron had sent a work order with complete details, but the fellow who received it thought it was a Friday the 13th joke and tossed it in the waste basket! A second copy had had to be sent.

"My initial reaction was to break out laughing, too," said Ron. "I remember saying to Paul, 'You're not serious! You really want me to build an egg that size?' Hmm! Then I stopped laughing for a year and a half!"

"I'll bet you did." Ralph loosened his tie. "Say, what did you learn about the wind-load factors?"

"Well, as you know, the structure will rotate and orient itself with the wind direction." Ron pulled off his socks and sprawled on the bed.

"Yes, but how? Which way will it turn?"

"That's what we asked. There got to be quite a bit of speculation over that among the engineers down at the university. Would the small end point into the wind, or the large end, or just what is this thing going to do?" Ron chuckled. "Of course that erupted into another technical study. There were numerous technical studies had to be developed as we got into this project. I mean, so many it's hard to believe."

Ralph smiled. "No, I believe it. So then you got into studying the aerodynamic properties of an egg?"

"And guess what--no one had ever studied the aerodynamic properties of an egg before! We checked it out and found no data. So finally we ran a wind tunnel test on an egg to determine which way the thing would orient."

"What did you find out?"

"I'm not telling!" Ron hooted, slapping his knees. "It's such a subject of debate, I think I'll let the people speculate and make their bets for awhile."

Ralph shook his head. "Well, I suppose it's one more reason they'll just have to come and see it for themselves!"

Ralph enjoyed this professor fellow. He may be brilliant, but he was down to earth. This was going to be a heck-of-a summer again--he'd finish at the school district office next week then immediately be tied up with a new job. Putting together an egg. He doubted he'd see too much of Mrs. Gorrie. That might be just as well, since she was none too happy about losing another vacation to a big egg!

Ralph was so pleased, though, with the co-operation of the community. Such fantastic support! The sod-turning ceremony had taken place in the Elks park back on June 12th, at the site chosen months earlier with the help of architect George Chernenko and designer Paul Sembaliuk. Ralph recalled how they'd walked around the area west of the fish pond, discussing the best placement of the monument. He was grateful for Chernenko's suggestion it should be placed far enough back from the road that people could take photographs without getting run over.

A few days after the sod-turning, the massive base had been installed. A pipe a foot wide and made of one-inch thick steel was embedded in reinforced concrete, and sunk a good four or five feet into the ground. The egg's mast would fit inside it like a sleeve. A huge ball bearing, imported from Germany, was fitted into the bottom of the supporting mast. The whole structure would rest on that ball bearing. The complete base weighed more than 13 tons.

Much of the material and labour had been donated. Mayor Moshansky, never shy about laying it on for a cause he believed in, had put the pressure on numerous firms for donated services, materials, and equipment. What an opportunity, he'd argued, to contribute to such a unique project! Just think of the publicity and attention the company would get!

Cessco International had fabricated the structural steel, Antonio Design Services had planned the steel base and provided shop drawings, Startex Company had helped construct the base, Twin Lake Construction had supplied concrete, landscape fill, heavy equipment and labour, Ezee On Manufacturing had built the steel frame for the base, Northwestern Utilities provided ditching equipment, Ed's Welding was prepared to weld the steel frame, E. and P. Construction had promised portable power equipment, Alberta Power had a polecat truck ready, Vegreville and District Co-op would provide a fork lift, the County of Minburn and Diachuk Construction offered welding equipment, Vegreville Transport provided transportation. And of course the Elks Lodge provided the site.

The day eight boxes arrived from the Permaloy plant in Utah was like Christmas morning to Ralph and his committee. The trunk-sized crates had been stored at the back of Jerry Liden's Co-op store.

Now, all was ready to go.

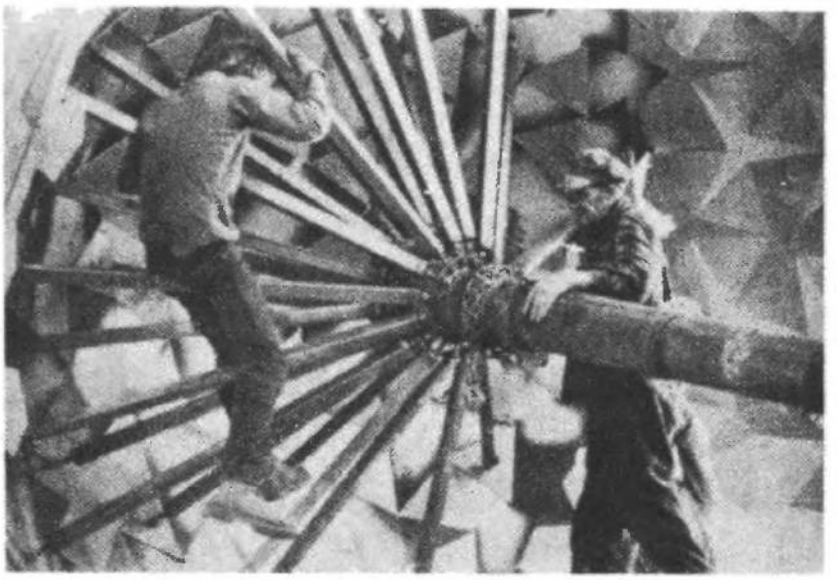
GIGANTIC JIG-SAW

The morning sun and breezes made dancing diamonds on the fish pond, and the cloudless prairie sky domed above in a deep blue. Several volunteers gathered around the professor to get instructions. "Okay, folks, we've taken this egg through more than a year's incubation. Now it's ready to hatch!" he quipped.

Ron introduced his friend, Annette. They'd had their differences in the past while, but she was here to do her part anyway.

"Annette is a professional photographer and film-maker who I've hired to document this whole erection process," said Ron. "Let's hope the weather stays co-operative." He spread a large grid-sectioned blueprint on top of one of the crates, and explained how they would follow this plan in assembling the thousands of parts. "Each facet is coded, to indicate where it fits into the puzzle. See?" he held up a silver triangle of aluminum, showing "B14" marked in grease pencil on the back. "Each outer tile has an inner one to match. They're sandwiched together, but no connections will be visible on the exterior of the structure. This tab here," he showed a folded out loop of aluminum, "is where a specific strut will attach. The other end of the strut will attach to rings on the axis."

The heat of a June day soon had helpers peeling off shirts and looking for shade. But it didn't take them long to get the hang of assembling the encoded facets into larger panels which were then bolted together. Anticipation grew as the tip of the egg took shape like a colorful igloo.



(Photo by Annette Del Zoppo)

The 2,208 equilateral triangles of identical size and 524 three-pointed stars (equilateral but non-regular hexagons) varied slightly in width, depending on their position in the egg. The angle at which the tiles were joined would vary from less than one degree in the bulging middle of the egg to seven degrees at the pointed end. Such small angles would make the surface appear to curve smoothly, even though it was composed of flat tiles.

Professor Resch also supervised steelworkers and welders preparing the internal structure. The supporting mast held an eight-inch wide steel axis at a 30-degree angle. Along the axis were a series of rings to which the internal struts would be bolted, with the other ends of the struts attached to the egg's shell like the inside of an umbrella.

To counteract any rotation of the egg on its axis, a steel plate eight feet wide and an inch thick was welded to the axis at what would be the widest girth of the egg. Additional strut supports would be connected from this balance plate to the shell. Each of the turnbuckle struts had to be turned to just the right tension.

Ron and his faithful crew were up at dawn to try to beat the heat, and worked late into the golden sun of evening. June gave way to July, the town's Ukrainian Festival came and went, and the weather stayed pleasant.

From the beginning, local people and travellers alike lingered along the snow fence around the work site. The first thing they saw taking shape was the gold star pattern radiating from the end of the egg, then the series of silver three-pointed stars.

The larger the egg grew, the larger the crowds of curious onlookers to watch the erection of the "eighth wonder of the world". Folks made bets on whether or not the egg would collapse. They also wagered on

how--by toppling or blowing away--and on when, during construction or after.
Annette Del Zoppo snapped pictures at every stage of the game. She also filmed for CBC television, especially while regular reporters and cameramen were tied up with Edmonton's Klondike Days. Live programming segments had to be filmed on 16 mm, processed and edited the same day to be put on the news that night. Annette hitched rides into Edmonton with farmers, sweating out the 65 miles in their hot trucks, then spent the evening working in the studio labs. She headed back to Vegreville late at night, to be up at dawn the next day.

She had agreed to come up to Canada for two weeks to do publicity for Ron. Before it was over she'd spent six weeks on the job. She had to admit--their personal lives came second to THE EGG. This thing was larger than life!

RUMOURS OF SABOTAGE

But not everyone was enamoured of the strange new structure going up on the east side of town. Ron started hearing rumbles of discontent. He was not a drinker, but he decided the pubs would be the best place to hear what the locals were saying. After a long day of egg-building, he sat in the smoky atmosphere of the 70-year-old Alberta Hotel beer parlour. He heard mumblings that some of the town's youth resented the egg because they wanted a swimming pool. There was even talk of blowing the monument up.

"What has this egg got to do with a swimming pool?" Ron asked.

He learned that an article in the local newspaper had once again stirred up ire about money. The paper erroneously reported that funds which were earmarked for a swimming pool at the high school had been diverted to the egg. Some people were so enraged they were ready to resort to dynamite.

Ron immediately began explaining to everybody that not a dollar of Town money had gone into the Pysanka. "It was outside funds, not local money, that was put into this. You'll still get your swimming pool!" he insisted. "You've got nothing to lose, and everything to gain. Be proud of what you've got here!"

From then on, however, the Chamber put people on security duty at the egg site every night.

One day John Sikoski and his crane from Twin Lake Construction lifted the dome-shaped top 30 feet into the air to be attached to the top of the axis. Ron and his helpers now worked from a bucket on the end of a lift, or clinging like monkeys to the struts fanning out from the axis inside the egg. Even the most skeptical of townsfolk were impressed by now. Ralph Gorrie noticed the former dissenters of the pysanka project were the first to bring their summer visitors to see it.

For 10 to 14 hours a day Ralph, Town councillor Kay McKenzie and school principal Alec Fedoruk worked faithfully alongside Professor Resch. The crew also included Mike Mudryk, Joe Goshko, Alex Diachuk, Steve Kozicki, Jerry Liden, Roy Baxandall, Lorne Saina and youngsters Kirk and Kim McKenzie. Students Lois Bienvenue and Peter Hemeniuk, employed that summer by the Parks Department, and secretary-treasurer P.M. Shavchook assisted in whatever way they could. Robert McDermott and Jim Yokum, another of Resch's students from the University of Utah, came up to help.

Ralph Gorrie (top), Kay McKenzie (bottom) and helpers pieced together the jig-saw. (Photos by Annette Del Zoppo)

Day by day, a crew of volunteers knelt on the grass assembling the coded pieces into manageable sections. Two or three pairs of hands were needed to pass each section up to Ralph Gorrie and Ron Resch, working side by side in a cherry picker bucket. Ron, agile like a monkey, often climbed around inside the structure, his voice echoing as they talked away the hours. Putting the puzzle together, the two men developed a good rapport.

One morning Ralph woke up with a headache and stiff back from the labour of the day before. "I think I'll take a day off," he said to Mrs. Gorrie. "It would be nice to have a day at home for a change, wouldn't it?" He was still in his housecoat when he heard an urgent knock at the door. It was P.M. Shavchook.

"Come on, Ralph! You've got to get better! We need you down there. Resch won't work without you."

"Why?"

"I guess he feels you're the only one who has a solid concept of what it's all about. Besides, we have a reporter from CBC Radio coming today. She wants to meet with both of you."

Ralph reluctantly slipped into his work clothes and kissed his wife good-bye for another day of summer "holidays".

WE DID IT! WE DID IT!

So it went, one piece at a time, one section at a time, as the monument took shape.

Even while assembly was taking place, seemingly without a hitch, Ron Resch worried about whether or not his proposed structure would take form in reality as well as it had in theory. Nobody had a predefined structural analysis. After sunset, when he'd showered away the day's sweat and grime, he quietly called long-distance to engineering friends to discuss whether the thing was actually going to stand up.

Erection was half done before he got his answer. He grabbed his little boy and danced around the motel room. "What do you know, Yon, I believe it's truly going to work!" he whooped. "Your daddy's done it!"

But his elation was short-lived. That night he awakened to a strong wind bellowing outside his window. The image of the half-finished egg, a fragile, umbrella-like structure perched atop its mast, flashed before his eyes. Of all the bad timing! The egg was at its most vulnerable right now. . .what would happen if the wind caught under that dome?

The outer skin of the structure--merely 1/16th inch thick--was actually so light. If the shell of a real chicken egg were scaled up 10,000 times, its thickness would be at least 10 times heavier than the Pysanka. "It's like having a salad bowl, and reducing it to tinfoil, then taking it out into a gale. It would rip itself apart!" Ron thought as he gunned his car through the dark and windy streets to the building site. Flashes of lightening gave an eerie strobe-light effect to the silver and gold surfaces. Ron dashed about, tying ropes wherever he could to secure the delicate structure. "Oh my God," he thought. "I might not see this through!"

The next day, he learned a tornado had touched down 50 miles to the north. Another tornado struck 50 miles to the south the next night. At one point Ron had looked up from his work and actually seen a funnel. After the storms, he was so relieved his structure had survived these close calls, he felt like a kid again. "C'mon, gang," he encouraged his weary workers. "We can't chicken out now!"

He explained how the structural engineers at the university had done an analysis and verified that although the egg's shell was so lightweight, it was a good five to 10 times stronger than required by code. "This thing will be here for the next century!" he said. "And I've done a small computation. I've figured out that it would take 100,000 chicken eggs to fill this one you're putting together.

The egg begins closing in on itself. (Photo courtesy Vegreville Chamber of Commerce)

And these eggs would weigh about the same as this one--two and a half tons!"

A month after Ron arrived in Vegreville, the structure began closing in on itself. The last puzzle pieces were bolted together into the last sections. Ron's arms ached from twisting 177 turnbuckles to just the right tension. Ralph nursed tender fingers from screwing in 6,978 nuts and bolts made of brass, the only material which could connect aluminum and steel--otherwise the chemical reaction between the two metals would quickly damage the egg's thin shell.

Workers had posed for media photographers, and given up their scaffolding to television cameras.

Ralph and Professor Resch had been interviewed again and again for radio and newspapers. But every day only heightened their satisfaction. The job that had once seemed impossible was now nearly done.

THE DAY OF DEDICATION

As Ron and his dusty crew finished up their task, others were busy planning the ceremonies for Dedication Day. The official unveiling would take place at 3:30 on the afternoon of the first day of the local agricultural exhibition, July 28, 1975.

But unveiling posed a problem. How do you cover up a 31-foot high, 25-foot long monument? Someone suggested a parachute, but even it wasn't big enough. Dedication day organizers settled instead for an unveiling of the four commemorative plaques.

D-Day dawned with a warm wind pushing aside a thin layer of cloud in the prairie sky. Everything was in readiness--the platform adorned with red, white and blue bunting, "instant lawn" landscaping around the proud Pysanka, flags whipping colorfully in the wind.

The crowd swelled to 1,500 as 50 girls in gold and white marched onto the site. The Edmonton All Girls Drum and Bugle Band gave a fanfare befitting the majestic monument towering above. Red-coated RCMP members stood at attention while people as proud to be Canadian as they were of their multicultural heritage sang "O Canada" with feeling.

Opening the ceremonies, Ralph Gorrie related the story of how the Pysanka came to be. "Many visitors have commented that they sure would like to see the chicken that laid this egg," said Ralph. "That's Professor Resch's next challenge. Anyway, we have now solved the perplexing problem of which came first--it's the egg before the chicken!"

In a more serious vein, he acknowledged all the hard work which had gone into the project over the past two years. "The local committee in charge of the project worked as a team," he said. "Believe you me, that in Vegreville, if you have the co-operation of the members of a team and a hard-working secretary-treasurer such as P.M. Shavchook, any project you dream up will be possible. The business community, citizens and youth co-operated in every way possible to make this project a realization, especially the erection of the Pysanka on this site. Our sincere appreciation goes to the community of Vegreville. You are just simply great!"

The plaques with the inscribed dedication were unveiled by the Lieutenant-Governor of Alberta, Ralph Steinhauer. High school students of different ethnic origins read the inscription in each of their

mother languages, Ukrainian, German, French and English, then Lieut.-Gov. Steinhauer repeated the dedication in his native Cree language.

Another guest, Edmonton's deputy mayor Lawrence Decore, told his home community he had heard Ukrainian Easter eggs had mythical and talismanic qualities. "It's supposed to avert evil," he said. "Maybe it will balance the town's yearly budget!"

Professor Resch, by now a popular figure in town, earned rousing applause from the crowd. Over the past five or six weeks, people had seen him in a hard hat, jeans and boots, his hair blowing in the wind. Now his work clothes had been exchanged for a snappy white shirt adorned with traditional colourful Ukrainian embroidery. He joked that as an American, he was the only "foreigner" on the platform yet he was the only one wearing a traditional costume! The truth was, he had combed the antique shops for miles around to find this shirt. It was his way of honouring the Ukrainian-Canadian culture he'd come to respect so much.

Mayor Moshansky bestowed upon him a title never given to anyone before. Ron Resch was made an honorary citizen of Vegreville and presented with the Keys to the Town.

The two-year struggle for a significant project to commemorate the RCMP centenary had been worth it. People went away feeling excited about their new monument, and proud of their town. The idea of a monolithic Ukrainian Easter egg didn't seem so absurd after all. Such an "egg eggstraordinaire" had already drawn in hundreds of visitors and generated considerable publicity.

Only one question remained. Was it true, as the joke was heard around town, that the last man to screw the last triangle in place was still inside the egg, nevermore to be seen again?

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TO THE CORNERS OF THE EARTH

The World's Largest Easter Egg drew, and continues to draw, tourists by the thousands. They camp their RVs in the Elks-Kinsmen Community Park amid five acres of lawns and flower gardens, playground and fishing pond with fountain and resident swans, walkways and wooden footbridges--all dominated by the proud Pysanka.

Tour buses pull up alongside family vans and retiree's motorhomes from April to November. Staff at the information centre in the park say half the visitors are repeats, usually bringing others to see the big egg. Some people come from farther afield: the 1991 summer's guest book records visitors from New Zealand, Uganda, Holland, Russia, Austria, South Africa, Germany, Japan, Ukraine, Great Britain, Australia, Sweden, and the United States.

THE QUEEN'S VISIT

The most famous viewers of the World's Largest Ukrainian Easter Egg stopped by in 1978--Her Royal Highness Queen Elizabeth and the Duke of Edinburgh, Prince Philip.

A highlight of the occasion was the unveiling of a plaque commemorating the royal visit. Young Ukrainian Dancers performed a dance of welcome, and a gift of exquisite pysanki made by Paul Sembaliuk's mother was presented to the Queen. The framed ensemble included a goose-egg pysanka designed like the Vegreville monument, flanked by eight smaller pysanki of different patterns. While in town, the royal couple visited the agricultural exhibition and presented awards to proud chuckwagon racers and awe-struck 4-H youngsters for their prize-winning livestock.

The Pysanka has also attracted engineers, architects and scientists. When Paul Sembaliuk was on vacation in Ukraine with his family the same summer the Pysanka was being erected, he was approached

by Soviet officials wanting to know more. Specifically, they wanted to get the revolutionary computer program which had been developed.

Queen Elizabeth and Prince Philip visited Vegreville's Pysanka in 1978. Her Royal Highness is pictured with Mayor Larry Ruptash. (Photo by Dean Jeffrey)

They knew how useful it would be for military application. Paul found it a bit disturbing that the officials knew about him and his work, and had tracked him down on his holiday. "But I guess the KGB was doing their job," he said.

Once he was back at work with the Public Affairs Bureau in Edmonton, a number of scientists from Holland, South Africa, Germany, the U.S.S.R. and other countries contacted him for more information. They had come out to see the egg and wanted access to the computer program.

To this day, the Pysanka is the only example in history of a three-dimensional structure that preserves the constancy of some of the tiles. Using this solution, one in every three tiles is identical, no matter what the surface. "The possible future applications are endless," says Professor Resch.

"If, for example, NASA had known of this method, they could have used it to solve the problem of tiling the surface of the space shuttle. This would have allowed them to carry spares of the identical tiles into space. Instead, each tile on the shuttle was unique, making it impossible to quickly and economically replace broken or missing pieces. Every time a tile fell off as the shuttle sped through the atmosphere, a new one had to be machined."
Resch took out patents on the patterned set of modules he'd invented. He expected his system to be used in building other structures composed of precise, freeform shapes. So far, however, it hasn't been utilized much.

Vegreville also gave a warm *Bitaemo* to a multitude of writers and photographers visiting town with an egg on their minds. Immediately following its erection, the Pysanka drew a tidal wave of media attention. That initial storm ebbed but there still remained a steady flow in the years to come.

Articles and pictures appeared in such diverse publications as National Geographic, Discover, Alberta's Heritage Magazine, the Egger's Journal (for egg producers), Westworld, Camping Canada, and children's and mathematics periodicals. The Pysanka made a striking front-cover photograph for magazines such as Materials Performance, a publication for engineers, and Canada Poultryman. Travel articles appeared in numerous newspapers across the country, and Alcan Canada capitalized on the "aluminum egg" for advertising.

A video was made by the American Association for the Advancement of Science, featuring a segment on Professor Resch and the Vegreville egg project. Originally meant for elementary schools, this film "The Challenge of the Unknown" is still seen regularly on United States public television.

The Pysanka even hit Ripley's Believe It or Not.

But there was one more media source in which the Chamber wanted its egg to be recognized--the Guinness Book of World Records.

FIGHTING FOR RECOGNITION

The story begins back in 1975, and it is not finished yet.

In the fall after the Pysanka was erected, Secretary-Treasurer P.M. Shavchook, always tireless in promoting Vegreville's monumental egg, obtained an "According to Guinness" clipping from the Ottawa Journal. It stated that the largest Easter egg weighed 648 pounds, stood six feet high and measured 13 feet, 3 1/2 inches in circumference. This egg was made by a company in Sydney, Australia in April, 1974.

P.M. wrote to Guinness Superlatives Ltd. in England to inform them that the Sydney egg was no longer the world's biggest Easter egg.

Guinness replied that they could not accept Vegreville's Pysanka as the largest Easter egg in their Book of Records."In spite of its great size," wrote G. Howard Garrard of Guinness, "this production cannot displace the existing entry which was in fact a true confectionery Easter egg and was made of chocolate. We feel sure you will appreciate that the two entries are hardly comparable activities, one being an example of the confectioner's art and the other an example of engineering skill."

Shavchook waved the letter in defiance. "Of course they're not the same!" he expounded to Chamber president George Miller. "How can they compare a fat chocolate egg and an architectural marvel?" He paced the floor of the Chamber office. Suddenly he whipped his suit jacket off, adjusted his paunch behind the typewriter, and began clicking the keys. "I'll write back and tell them it was never our intention to have the confectionery egg item deleted! Our egg deserves its own category. Right?"

"Right. You tell 'em, P.M.!" George laughed at the wiry fellow's excitable nature.

This time, months passed before Shavchook received a reply. "I note what you say regarding the possibility of including the Pysanka as well as the actual Easter egg in this section of the Guinness Book of World Records," wrote Mr. Garrard. "The matter received consideration and I am sorry to say that this could not possibly be arranged. Records which are qualified in some way cannot be accommodated in a reference work so general as the Guinness Book of World Records. You will readily appreciate that were we to publish all possible variations we would soon be faced with the necessity of publishing the book in several volumes."

Mr. Garrard added that he could not deal with this matter in more detail at that time due to "the brutal assassination of our joint editor, Mr. Ross McWhirter" on Nov. 27th.

"Well, I'm certainly sorry to hear one of their chiefs was murdered, but I just don't see what's the problem about our egg," P.M. reported to the next Chamber meeting. "We have the largest Ukrainian Easter egg in the world, and I'm not about to give up. I intend to pursue this further."

For the next few months Shavchook gathered more armour--articles from magazines, clippings and photographs. Finally he wrote back to Mr. Garrard at Guinness. "This is our third attempt to have the Vegreville Pysanka included in your valuable Book of Records as the largest Easter egg in the world," he wrote. "As a further proof of its recognition as such, I enclose a copy of the National Geographic Magazine which records the egg on page 499 as the largest in the world. As you are aware this magazine carefully researches their articles as to their accuracy.

"We again request the inclusion of the Pysanka in your Book of Records, and like Robert Bruce we will be trying until we succeed."

Indeed, P.M. would need the persistence of the spider which inspired Robert the Bruce to not give up the fight for Scottish independence. Again Shavchook received a negative reply from Guinness, defending their position. They stated that a new category could not be opened "on the basis of one set of figures alone", for there would be no comparison. However, the Vegreville Pysanka information would be kept on file "in case other such structures are being made."

The next spring while vacationing in the Far East, P.M. met a woman from Sydney, Australia, on a ferry boat going to Hong Kong. He remembered the legendary spider and Robert the Bruce.

"Oh, you're from Sydney? Have you ever heard of a big chocolate egg there?"

By the time the boat docked in Hong Kong, Shavchook had convinced this lady to look in a Sydney mall for the supposedly "biggest egg in the world", photograph it and and send any information she could find.

Months passed. P.M. never heard back from the woman he met on the ferry, although he tried writing to her again. He heard his friends Walter and Rose Solodzuk of Two Hills were planning a trip "Down Under", so he begged them to seek out the big chocolate egg. But this, too, yielded no results.

By the next spring, however, P.M. had a new approach. He'd write to the Mayor of Sydney, as always enclosing a brochure about the Vegreville Pysanka.

Shavchook's request for information was passed along to the Retail Traders Association of Sydney, and a few weeks later a letter arrived back in Vegreville. "We regret to inform you that we have nothing (here) like your pysanka. This is certainly a remarkable symbol and structure in your town," said the letter. P.M. smiled to read the next paragraph. "However, at the moment a commercial operation in Sydney has a very large chocolate egg which has been stuffed with $2,000. A pamphlet showing its commercial implications is enclosed."

Shavchook studied the pamphlet. It was a "Win the golden Easter egg with $2,000 inside" contest, offered by a Sydney mall. But there was nothing about the egg's size. And this was three years after the original "biggest Easter egg" confectionery was recorded by Guinness.

Now what?

Back to Guinness. But he had to find a new way to get to them. A more indirect approach. How about Alberta's Agent General over there in England?

H. K. Pickering of Alberta House, Hill Street, London, promised to look into the matter. The summer and fall passed before P.M. heard back from the Agent General. "Please excuse the delay. However, it took

me some time to meet with the right people concerning the Guinness Book of Records," wrote Mr. Pickering.

"I am sorry to report to you that they are still quite adamant that they cannot include reference to your Easter egg in their book. Their interpretation of an Easter egg is that it must be either a real egg or an example of what they term 'confectioner's egg' such as a chocolate Easter egg. They still feel that yours is an engineering feat and there is nothing to compare it with.

"It does not appear to me that we will get anywhere with them in this regard and I am only sorry I could not be of more help to you. In the meantime, you still have the satisfaction of knowing that it is the world's largest Pysanka."

P.M. sighed. Yes, he still had *that* satisfaction.

THE FIGHT GOES ON

Ten years later, long after P.M. Shavchook had passed away, it still bothered the Chamber that Guinness would herald such frivolity as the world's largest omelet, made from 48,000 eggs in Vancouver, while dismissing an engineering feat that accomplished nine international 'firsts'.

Everyone gets in on the act. That's lawyer Doug Weetman under the egg. (Photo by Vegreville Observer)

The flag was taken up by Terry Soldan, the new Secretary-Treasurer.

One sunny day in August, 1987 Terry got word that Allan Russell, the editor of the Guinness Book of World Records, was at Edmonton's Heritage Days to witness the "longest conga line dance in the world", 2,000 people in a line weaving more than a mile. Russell was planning a quick visit to Vegreville that very morning.The burly Englishman and his wife arrived in an agitated state.

"I've only got a few minutes," he blustered. "I've got a meeting in an hour back in Edmonton. Let's have a look at this big egg you've got here."

Terry graciously drove the couple out to the Elks-Kinsmen Park, trying to relate in a few words the complex history of the monument. The car had hardly rolled to a stop before Mr. Russell jumped out the door. He walked all around the Pysanka, underneath, back a distance, and under it again. He studied the information plaques. Again and again he slipped the camera off his shoulder for another snapshot.

"I had no idea!" he expounded. "This is indeed quite an egg!"

The meeting he had scheduled in Edmonton at 11 o'clock seemed to have been forgotten. He reached up and tapped the egg's aluminum skin. "It's a work of art, isn't it?" he said. "However did you find this professor in Utah? How did you choose a design that would work so well with the structure? I'd like to know more!"

Terry wasted no time gathering others to help answer the Guinness editor's queries. At 2:30, as they still wandered around the park, he had a number of people pose with the Russells for a photograph for a local newspaper. The group included Ralph Gorrie and Mayor Ross Cairns.

Finally, the English visitors had had their fill and were ready to return to Edmonton. "I'll have you know, this IS the world's largest Easter egg!" beamed Mr. Russell. "And don't worry, I'll make sure it is recorded as such."

In the years following, Terry checked the latest issues of the Guinness Book of World Records. Among the longest banana split (over 1 1/2 miles), and the largest beefburger (3591 pounds), and the largest cherry pie (weighing 6 1/4 tons), was listed the "Heaviest and Largest Easter eggs". The heaviest Easter egg ever made, so the Book of Records said, weighed 3430 kg (7562 lbs.) and measured 3.4 metres (10 feet) high, made in Leicester, England. The largest egg, it was said, was in Schelle, Belgium, at 5.42 metres (17 feet, 9 inches) tall and weighed 2323 kg (5121 lbs).

How could these compare to Vegreville's egg, 25.7 feet long, 18.3 feet wide and weighing 5,000 pounds on a 27,000-pound base?

In October, 1991, impatient with the apparent lack of response from Mr. Russell's visit, Terry wrote to the new editor of Guinness

Publishing in England reminding him of Mr. Russell's visit and his final word that "the world's largest Easter egg" would be duly recorded. He sent along more informational brochures. As usual, Terry's letter was printed on the standard Chamber of Commerce letterhead paper--featuring, of course, a logo of the World's Largest Pysanka, "A unique symbol of culture, history and computer science".

He received a prompt reply. Once again, Guinness stressed that there was clearly a difference between the Pysanka, an architectural and engineering achievement, and a traditional Easter egg that can be eaten. They said since they receive more than 10,000 letters every year, new categories are rarely added. Only when Guinness is sent a number of comparable claims to Vegreville's Pysanka will they consider adding it to the Book of Records.

Following the tradition of Robert the Bruce and P.M. Shavchook, Terry hastily faxed off his next query. What are those big eggs currently in the Guinness book made of? Cheese? Chocolate? Candy?

"We'll see if we can't win this battle yet," he says with a grin.

CAPITALIZING ON VEG'S EGG

Being an organization of business people, the Vegreville and District Chamber of Commerce wasted no time in seeking ways to capitalize on their already famous monument. "It is the landlord's eye that makes his cattle grow fat," as an old Ukrainian saying goes.

They arranged a joint copyright registration with Ronald Resch, and soon received numerous requests for the Pysanka logo to decorate everything from T-shirts to record jackets. Commercial users paid a $100 fee at first, but soon the Chamber gave up trying to keep control. Their Pysanka's picture appeared everywhere.

As a fund-raiser, the Chamber produced a series of commemorative medallions in 1975. Forty-five 24-karat gold medallions, each 9/10 of a troy ounce,sold for $750. Also sold were 600 silver medallions and 10,000 nickel ones. Each year since, a new medallion has been issued with the Pysanka consistently featured on one side. A few silver coins are minted, along with several thousand of a nickel alloy. These are honored as "trading dollars" every summer. Locals and visitors also regularly buy Pysanka lapel pins and tea spoons, crests and bumpr stickers.

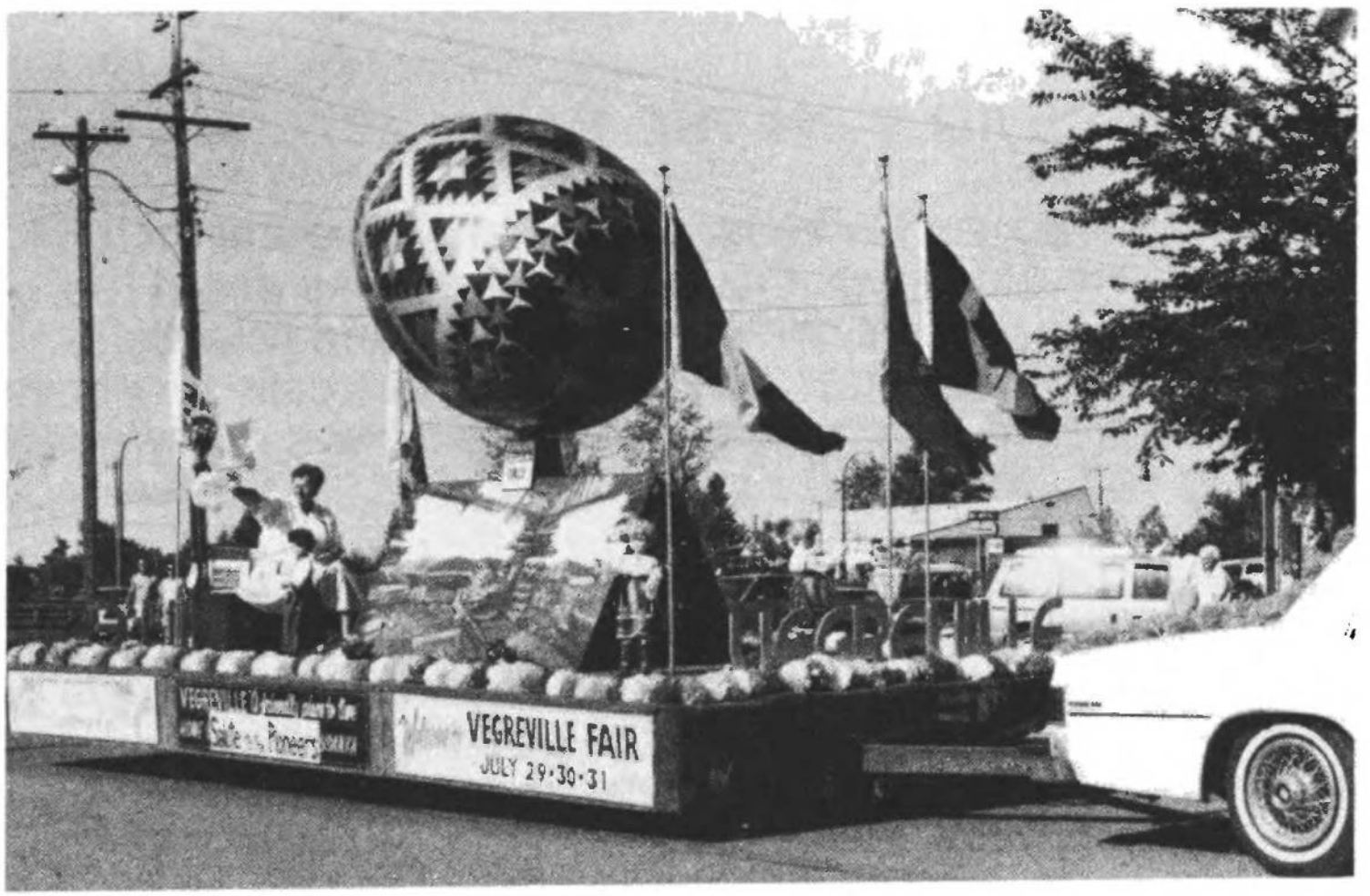
In 1976, Ron Resch and Annette Del Zoppo produced a small book recording in pictures and words the story of the egg. Besides documenting the incubation and hatching of Veg's egg, the book acknowledged the dozens of people in both the United States and Canada who made it possible. These books were sold for years by a local business, the Vegreville Floral Boutique, and may still be obtained from the Chamber of Commerce.

A JUNIOR PYSANKA

Professor Resch was not the only one to build a big egg.

John Radesh, a shop teacher at the local high school in 1980, spent many weekends and evenings in his garage building a smaller scale replica of the Pysanka. John's "junior pysanka" became the feature element of a parade float which has since travelled widely and earned numerous awards.

He started with a photograph, and enlarged it to get proportionate measurements for his eight-foot long egg. Then he made a metal frame, covered it with jute, and used drywall plaster to made a



Mayor Kay McKenzie on the Vegreville float with the replica Pysanka made by John Radesh. (Photo by Vegreville News Advertiser)

mould. The egg was made of fibreglass in two halves from this mould. John put the two halves together, drew the pattern to match the big Pysanka, and painted the egg with automotive enamel spray paint. The finished replica was sturdy enough to last a lifetime. Mounted on a trailer built by Ed Tarapacki, this replica pysanka could be raised or lowered for convenience in storage, transportation and decorating the float.

Every summer a new float is created around this pysanka. It has travelled west to Dauphin, Manitoba and east to Penticton, B.C. Parade-watchers at every community festival throughout Alberta snap their shutters at the little pysanka.

The Chamber of Commerce office walls and shelves are crowded with ribbons, plaques, and trophies earned by the pysanka float. "This is probably our most prized one," says Terry Soldan, reaching for a tall trophy on the windowsill. "It's from the Grey Cup parade in Edmonton, back in '84." He points to the inscription. "Best non-CFL City. That's pretty good, out of all of Canada."

He rearranges the trophy among others. "Last year the float went out 13 times. Not all of those were competitions, but we still came away with five firsts, three seconds and a third."

PUTTING VEGREVILLE ON THE MAP

Since Terry became the Chamber's secretary-treasurer in 1984, he has answered hundreds--no, thousands--of queries about the Vegreville Pysanka. Letters come from schools and scientists, promoters and potential tourists. Among numrous calls for community information he gets in a typical day, there are always many questions about the big egg.

But Terry never tires of telling about it. He still gets enthused when he hears the voice on the other end of the line extolling the size and scope of The World's Largest Ukrainian Easter Egg. "Is it really that big? How did you build it?" Although the giant Pysanka is no longer a novelty to Vegrevillians, it still fascinates those who are just discovering it--like I was, so recently.

Back in 1973, "Big Foot" Nestman, in his persistent push to promote the community, called for a project that would "put Vegreville on the map". The Pysanka has done just that. Several times when I told people that I was moving to Vegreville, Alberta, I heard, "Isn't that the place where they have a great big egg?"

Some local folks say, with a twinkle in their eyes, that the town ought to adopt a new name--Eggerville.

Now, there's an idea for the Chamber of Commerce to include on their next agenda.

✲✲✲✲✲✲ APPENDIX ✲✲✲✲✲✲

THE TOWN

LOCATION

100 kilometres (65 miles) East of Edmonton, Alberta on Highway 16 (Yellowhead Highway)

POPULATION

About 5,500 in 1991, and 4,000 in 1975 when the Pysanka was built

THE PYSANKA

DIMENSIONS

Length	25.7 feet (7.8 m)
Width	18.3 feet (5.5 m)
Height (from ground)	31.0 feet (9.4 m)

WEIGHT

Aluminum skin	2,000 pounds (907 kg)
Internal structure	3,000 pounds (1360 kg)
Base	27,000 pounds (12247 kg)
Thickness of shell	1/16 inch (1.58 mm)

NUMBER OF PIECES

Visible facets	3,512
Star patterns	524
Equilateral triangles (inside)	1,104
Equilateral triangles (outside)	1,104
Nuts and bolts	6,978
Internal struts	177

COST

Alberta-RCMP Century grant	$25,000
Chamber of Commerce	$25,000 (in funds and services)
United States government, University of Utah, people and businesses	$250,000 (indirectly)

TIME

Design and fabrication	12,000 hours
Erection	One month
Date of proposal	July, 1973
Date of completion	July, 1975

NUMBER OF VISITORS

Unknown

Visitors signing guest book in summer, 1991-- about 5,000

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Heather Jean Glebe

In the Alberta farming community of Vegreville, 100 kilometres east of Edmonton, stands the world's largest Ukrainian Easter egg.

How did it get there? Why was it built? What does it mean?

The story of how a determined community group and a persistent professor, one on either side of the United States / Canada border, refused to give up on this unique project reads like a suspense novel.

When the Psyanka was erected in 1975, it boasted nine mathematical, engineering and architectural 'firsts'.

Visitors from around the world still admire this unique monument to the Royal Canadian Mounted Police.

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