

American Odyssey

Michael Sewell
Department of Mathematics, University of Reading,
Whiteknights, Reading, RG6 6AX.

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1 Introduction

In August 1970 Michael and Bridgid Sewell took their family of three boys, John (then aged 9), Richard (7) and Peter (nearly 3) to the United States of America for a year. Michael had been invited to take up a Visiting Professorship at the Mathematics Research Center in the University of Wisconsin at Madison. This is a brief account of some of their activities during that year, supplemented by photographs.

Peter and Richard are shown in Fig. 1 and Fig. 2 looking at the planes while they waited for boarding. One of many exciting views, new to us, from the plane is shown in Fig. 3.



Figure 1: Peter and Richard at Heathrow



Figure 2: Peter at Heathrow

The invitation came via Professor Ben Noble, who was a permanent member of staff at the MRC, and a vigorous author. For example, three of his books are listed in the References below. Ben had seen a paper which Michael had published in the *Philosophical Transactions of The Royal Society* (see References). Ben was a Scot, and married to Denise. They owned Mill Cottage, with “roses round the door”, at Broughton Mills near Broughton-in-Furness in Cumbria. They invited our whole family to stay in Mill Cottage with them in the summer of 1969.

Technical outcomes of the visit included a joint article with Ben, and a review article by myself, both published in 1972; a 1978 article with Ben; and after several more shorter visits to Madison in later years, a book by me which Cambridge University Press published in 1987. These are all listed in the References.



Figure 3: Greenland, east coast



Figure 4: Extract from Times 25 August 1970

The MRC was funded by the United States Army. This fact, of such an association within the University at a time when contentious issues such as the Vietnam war were of active political and public concern, brought unwelcome publicity to the University. So much so, that just before we left Reading to begin our journey to Madison, a bomb was planted and exploded within the campus building where the MRC was housed. It killed a physicist in his laboratory.

This meant that almost the first thing that greeted us when we, a family with three small sons, boarded our VC10 aeroplane at London Heathrow Airport, was an article in The Times for that day, 25th August 1970, giving the news of that explosion, at the very place where I was to be employed. This article is reproduced in Fig. 4.

2 Arrival

Ben Noble met us at Chicago O'Hare Airport, and in a rather concerned state, because he was mindful of the fact that it had been he who had invited us to Madison, and now apparently we might be exposed to violence, or the threat of it. However, that was for the morrow, and today he drove us the 120 miles to Madison, with a pit-stop en route for refreshment in a motorway service station. Ben Noble is shown on the left in Fig. 6, taken in about 1983.

We had previously agreed to rent a house for the year, at 446 Agnes Drive in Madison, shown in Fig. 5 (on 30th October), and this is where we were eventually installed, after Denise had given



Figure 5: 446 Agnes Drive, Madison, Wisconsin

us a meal at their house at 217 Shepherd Terrace, and provided us with a bagful of food shopping from the local supermarket Kohl's, the largest shop I had ever seen. The house was a timber-faced construction with split levels. The living room and kitchen was on one floor over a substantial basement, and bedrooms were over a study and garage. It was set within a wooded plot, like all its spacious neighbours, on a quiet wide road.

The domestic facilities included things which we did not have in our Reading house, such as fridge, freezer, automatic clothes washer and dryer; and supermarkets. This was different from walking down to Brown's grocer's shop on the corner for our food and leaving the pram outside the shop, which was considered safe in the 1960s, but would not be dreamt of now.

One of the first things that we needed to do after arrival in Madison was to buy a car. This Mercury is shown, with Bridgid and the boys, in Fig. 7. It served us well for a year, and took us to many places. The car had no seat belts, and it was so long that, on the one occasion when we did an emergency stop, the three boys all fell into the footwell behind the front seats.

Early Autumn trips included one to Wyalusing State Park on the Mississippi River, which forms the western boundary of the State of Wisconsin, and to the more local Devil's Lake. John is at Devil's Lake in Fig. 10. Peter is shown in Wyalusing and (on his 3rd birthday) in Kettle Moraine State Parks in Fig. 8 and Fig. 9 .

Madison is the State capital of Wisconsin. It seemed to us to be a pleasant and clean city, with some attractive facilities. Wisconsin has many lakes, some of which would have been scooped out by glaciers in the past. On the north side of Madison there is Lake Mendota, of a few miles in extent, and used for water sports in the summer and ice yachting in the winter. The main part of the city stands on slightly raised ground by that Lake, with other business and residential parts a little further away, the airport to the east of the Lake, and two more lakes to the south of the city.



Figure 6: Ben Noble with Michael and John Ben Noble in Madison

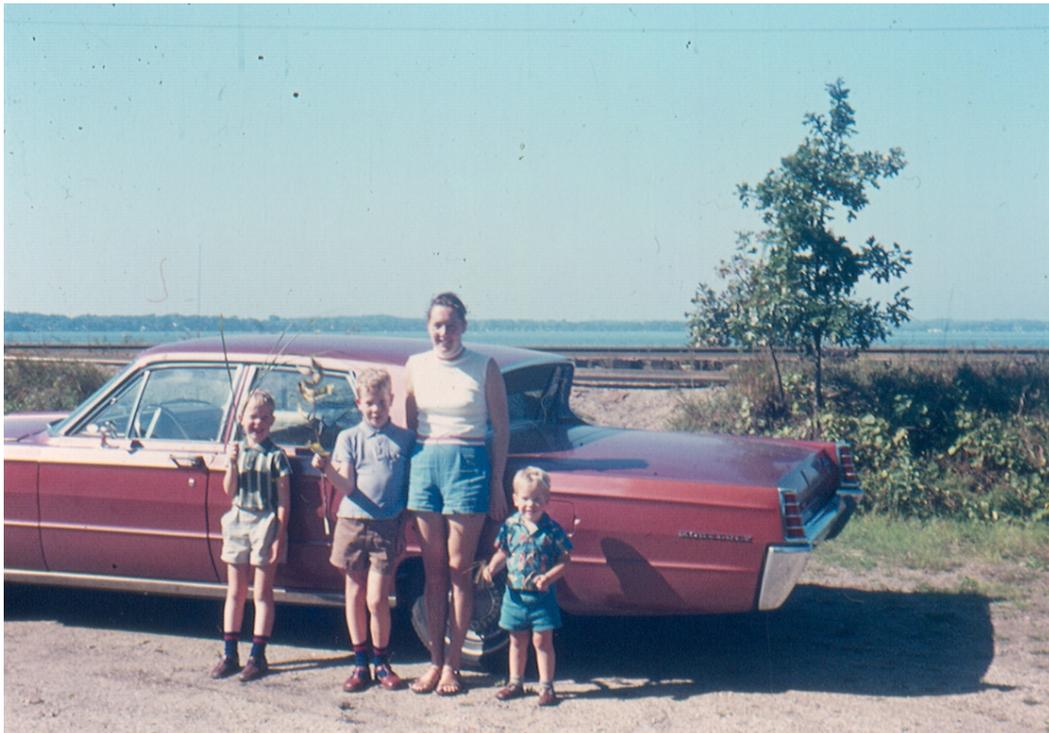


Figure 7: Family in a Wisconsin State Park

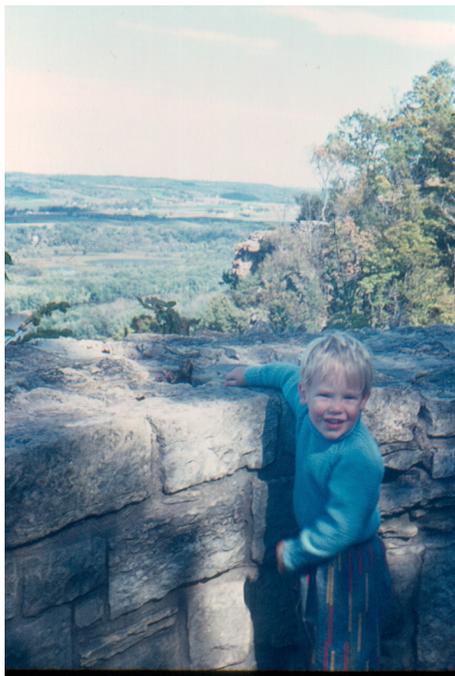


Figure 8: Peter in Wyalusing State Park



Figure 9: Peter in Kettle Moraine

The State Capitol building features a dome imitating, as in other States, but smaller than that in Washington. When we opened a bank account, we found that every one of our cheques (Fig. 12) featured an attractive, if slightly condensed, representation of the City skyline as seen from the Lake.

So our mode of travel to the United States, the VC10 to Chicago, and our destination there, Madison, are both shown in Fig. 13.

3 Autumn Outings

On Peter's third birthday, 11th October 1970, we visited Kettle Moraine State Park, and had a birthday picnic there, as Fig. 14 shows. One of the big sporting venues in Madison was the Camp Randall Stadium, shown in Fig. 11. On 17th October we went there to see a football game. Just as entertaining to us was to see all the razzmatazz that went with it. The stadium was full. Almost everyone seemed to be eating masses of cooked popcorn. There were marching bands and their music on the pitch before the game. It was a clear blue crisp Autumn sky. A light aeroplane, painted yellow, passed overhead, trailing a long banner which said "Serve and savour Wisconsin potatoes", and this created an evocative impression against the blue sky. Another outing to a picnic site near Lake Michigan, was photographed (Fig. 15) by Bunty when she and Matey came to visit us in the summer of 1971 (Fig. 74). She was 64 then, and she lived to be 99.5.

Madison has latitude 43 degrees N, as compared with the 51.5 degrees N of Reading, and this difference notices in terms of the brightness of the sky, even though the mid-continental location provides a daily climate which is more stable than the maritime British one.

One of the autumn occupations was leafsweeping (Fig. 16 on 24th October). The University of Wisconsin Arboretum was another place of local interest, and Richard found a grasshopper there (Fig. 17). There was a great deal of spectacular autumn colour in the State Parks (Fig. 18, Fig. 19)



Figure 10: John at Devil's Lake



Figure 11: Camp Randall Stadium



Figure 12: Madison on our cheques

and elsewhere, and we visited several of these on weekend outings. Blue Mounds State Park (18th October) 23 miles west of Madison, and Curtis Prairie at the University of Wisconsin Arboretum (24th October) were two of them. A strong American tradition is the celebration of Halloween, and we joined in on 31st October (Fig. 20).

The Mathematics Research Center employed about 10 Professors full-time appointments, and about 30 Visiting Professors like myself on short-term contracts of a few months each (one year in my case). There was a strong social side to the basic set-up, and the wives of the permanent members were active in making the visiting families feel quickly at home. This hospitality was reflected in the format of the staff list in Fig. 21. There were regular wives coffee mornings, and Bridgid was taken shopping, and to a choir, and to parties in the homes of the other local wives. Also, larger MRC picnics were organised in one or other of the several State Parks around the outskirts of Madison. Often most of the 40 MRC members and their families would be present at those outdoor events. The Director of MRC at that time was Professor J. Barkley Rosser.

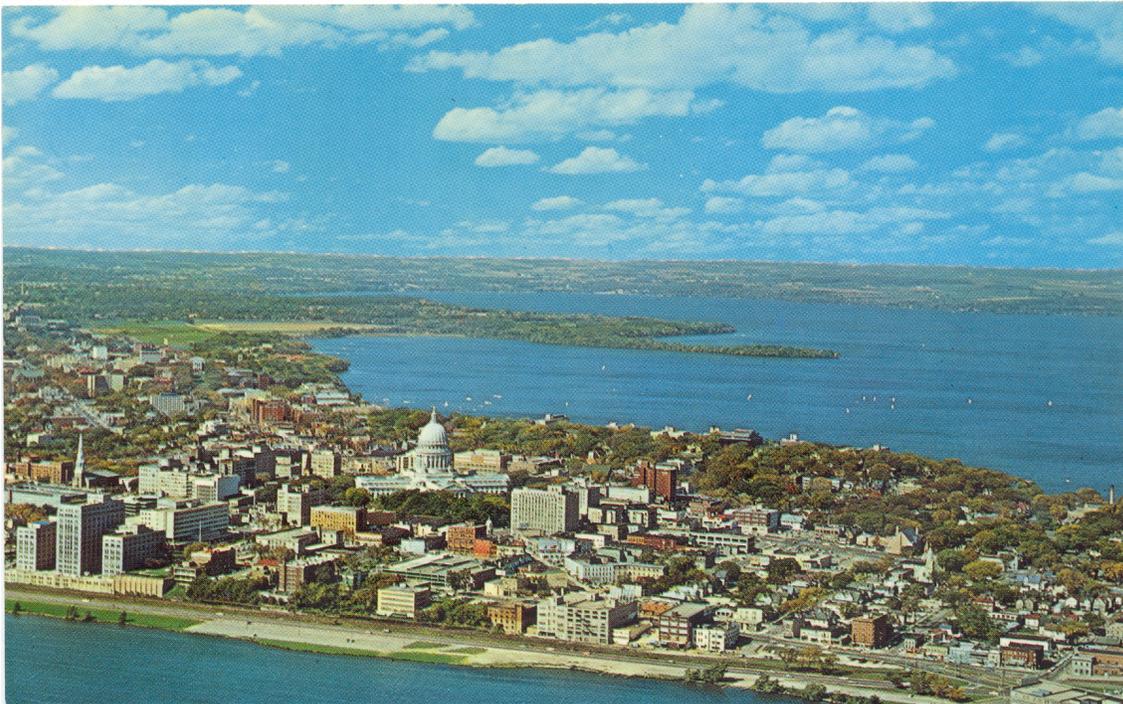


Figure 13: VC10 and Madison



Figure 14: Peter's party at Kettle Moraine Park



Figure 15: Picnic near Lake Michigan



Figure 16: Leaf sweeping at 446 Agnes Drive



Figure 17: Richard with grasshopper

4 Schools

Places were found for John and Richard at the large Midvale School on Midvale Boulevard, starting in September. This School is seen in the distance in Fig. 22, with Richard at the lamp-post. It was less than satisfactory, with the syllabus handed down on a regimented basis. We were shown the work book on our first visit, with one page of maths for each day of the school year. Richard could do it all at that stage, but no alternative was offered. He did have special permission to read books designated for higher years. Every day started with a ceremony which included "saluting the flag". Presumably that explains why so many private houses had the Stars and Stripes flying from a flagpole in the front garden. No similar custom applies in England to anything like that degree. Richard became very bored, and then ill. Most unusually, after Christmas he was allowed to transfer to Camp Randall School. This was after an interview with the Head there, who asked him to name the odd numbers downward from 53, which he could do. Peter joined a nursery school.



Figure 18: Blue Mounds State Park



Figure 19: Peter in Curtis Prairie

5 Winter Wonderland

After an Autumn which was often bright and colourful, the onset of winter in Wisconsin was characterised by heavier snowfalls and colder temperatures than we had been used to in England. But it was also very predictable, and a system had evolved to deal with it. Heavy snowfall could be predicted just by looking to see what was happening two or three States to the westward, battening down the hatches for a couple of days when it arrived, then sweeping as much as eighteen inches of snow off the streets and sidewalks, and continuing life as before, except for some obvious precautions. These included proper footwear to avoid slipping on ground that had not been properly swept, and awareness of the fact that temperatures of perhaps 20 degrees Fahrenheit below freezing might mean that metal objects such as car door handles could be dangerous to touch with bare skin.

By 23rd November, before the first snowfall, we had a temperature of 7 degrees Fahrenheit and a wind of 35 m.p.h. This whipped up spray from the surface of Lake Mendota, and left ice sculptures on the shoreline. (Fig. 25 on 29th November). By 13th December we had the first big snowfall (Fig. 23), which brought the real fun of tobogganing and sliding on metal saucers.

The down side to this was that the ground was then covered with snow for the better part of four months, which eventually became tedious to us who were used to seeing some green in winter. Everywhere was white for weeks on end.

As winter moved into December a Messiah concert was given by the Madison Civic Chorus in the University of Wisconsin Stock Pavilion. We were entertained by major icicles, over 18 inches long, hanging from the eaves of our house, caused just by sun-melted snow on the roof, not by a general thaw (Fig. 27 and Fig. 29). We found large public playgrounds, such as Cherokee slope not far from home, by Midvale Boulevard, for John and Richard to slide about over the snow on saucers and sledges, and skating on Shorewood Rink nearer to Lake Mendota. Even Peter tried the skating (Fig. 26).

We had Christmas dinner at 446 (Fig. 30), and on 2nd January visited Tower Hill State Park, for more sliding about. Even Michael tried saucering. There was another large blizzard to be swept away on 3rd January, and one photograph shows our car in the drive, but hiding behind a snow bank (Fig. 28).

As winter deepened into January, we found further outdoor outings, for example to see ski jumping from a hillside (Fig. 32), and to the exciting ice-yachting by people on Lake Mendota (Fig. 35). Richard took to his longjohns for School, and also for home observations through his microscope (Fig. 33). The four male members of the family were photographed indoors (Fig. 36).



Figure 20: Halloween

The bombing of the Mathematics Research Center in August had caused it to move premises from the centre of Madison, to a couple of floors of the Wisconsin Alumni Research Foundation tower (the WARF building), just off campus. From my office there I had a splendid view of Lake Mendota, shown in February 1971 as the snow-covered ice sheet in the photograph (Fig. 31), and with Michael, John and Peter on it (Fig. 34).

The last blizzard of the winter arrived on 10th March, providing plenty of entertainment for the local children in Agnes Drive (Fig. 38), and it decorated the swings (Fig. 37) in our yard at 446. The children in the house next door were called Ketterhagen.

If a child was ill and had to be taken to the doctor, he was wrapped up in a blanket, with head completely covered, put in the car within the garage, and taken out at the covered drive-in porch at the surgery, thus avoiding exposure to the elements. Eventually the snow vanished relatively quickly around the end of March, by which time the local population (or that part of it who had not been south for a brief escape) were very ready to welcome the return of green, and of “April next week” as the radio said with some feeling. There had been nowhere to walk easily, and even school playgrounds had been flooded to form ice-rinks.

After the snow had gone, there were further trips out of Madison to country parks, where even fishing was tried. Games with neighbouring children moved readily between the “yards” of each other’s houses. These “yard games” (Fig. 39), and fishing in local lakes (Fig. 40), became some of the attractions by the time we got into May.

MATHEMATICS RESEARCH CENTER
THE UNIVERSITY OF WISCONSIN

J. BARKLEY ROSSER, DIRECTOR
L. B. RALL, ASSOCIATE DIRECTOR

OCTOBER-1970

MRC Telephone Number is 262-3196

RESEARCH STAFF	OFFICE	PHONE	HOME ADDRESS	SPOUSE	PHONE
Andalafte, E. Z.	1542V		409 Eau Claire Ave, #201		238-4850
Brauer, F. C.	403VV	2-2925	5113 Coney Weston Place	Esther	238-4126
Caviness, B. F.	2172CS	2-6190	2419 Amherst Rd, Middleton	Jane	836-8678
Conner, H. E.	511VV	2-3221	2632 Chamberlain	Shirley	238-8561
Cryer, C. W.	3122CS	2-7892	2219 Woodview Ct.	Jutta	257-0653
Dickey, R. W.	713VV	2-2930	5746 Baskerville Walk, Mdltn	Barbara Ann	238-0171
Friededt, B. E.	1105SS	2-0775	645 Skyview Pl #9		251-4305
Greville, T.N.E.	901SS		700 Glenview Dr.	Florence	222-2245
Harris, B.	737ERD	3-1707	1226 Brookwood Rd.	Anita	271-6842
Hu, T. C.	3166GS	2-0655	4722 Fond du Lac Tr.	Jane	233-0522
Hung, H.-S.	281MF		2227 Woodview Ct. #29	Eunice	255-5300
Karremann, H. F.	247ME	2-0323	3412 Blackhawk Dr.	Helen	233-8921
Lodge, A. S.	123IERE	3-1571	210 Du Rose Ter.		238-3743
Machado S.	815VV	2-3219	212 Marion St. #502		256-5264
Mangasarian, O. L.	3169CS	2-0664	6021 Old Middleton Rd	Claire	238-0961
McLeod, J. B.	525VV	2-2881	34D University Houses	Eunice	233-3120
Nashed, M. Z.	809VV	2-3734	6302 Bradley Pl.	Ragda	271-1503
Nickel, K.	1403SS		5322 Milward Dr.	Gunilde	231-2972
Noble, B.	739ERI	3-1707	217 Shepard Ter.	Denise	238-0527
Prabhu, N. U.	247MF	2-0323	4859 Sheboygan Ave. #220	Sumi	233-0057
Rall, L. B.	539ERI	2-3199	135 N. Prospect Ave.	Fran	233-9079
Robinson, S. M.	419ERI	3-1997	64 Craig Ave.	Chong-Suk	231-3065
Rosen, J. B.	3110CS	2-6393	3426 Lake Mendota Dr.	Harriet	238-9020
Rosser, J. B.	1337ERI	2-3636	4209 Manitou Way	Annetta	238-6919
Schoenberg, I. J.	423VV	2-2925	1111 Oak Way	Dolly	233-0742
Sewell, M. J.	705ERI	3-1707	446 Agnes Dr.	Bridgid	233-9103
Sharma, A.	1540VI	2-2526	23B University Houses	Durga	238-1388
Shen, M. C.	709VV	2-2926	5137 Door Dr.	Shirley	238-0738
Travis, L. E.	2157CS	2-5948	117 Alden Dr.	Esther	238-7316
Uebe, Goetz	409VV	2-3545	501 N. Henry St. #901		251-3682
Yohe, J. M.	207SS	3-2430	536 Gately Ter.	Nancy	238-1154
Young, L. C.	425VV	2-3747	5532 Lake Mendota Dr.	Elizabeth	233-6777
Zarantonello, E. (on leave)					

Figure 21: Mathematics Research Center



Figure 22: Midvale School



Figure 23: John tobogganing in Agnes Drive



Figure 24: Richard saucering in Agnes Drive

6 Trips with Talks

When the Spring came, Michael was invited to give lectures, about the research he had been doing, in universities in widely spread locations. Among these were Waterloo (Ontario) and Calgary (Alberta) in Canada, on one occasion travelling in a very small plane following the Red River towards Winnipeg (Fig. 43); and several in the USA including Kentucky, Alabama and the West Point Military Academy in New York State. These trips necessitated much use of aeroplanes, sometimes starting with the Wisconsin local North Central Airline (Fig. 42), some of which I photographed for their novelty value (to me). Some of the locations were associated with the US Army connection because of the fact that they were helping to fund the MRC in Madison. In advance of the West Point lecture Michael was informed that he would be met at La Guardia Airport outside New York by “sedan transportation”. This sounded very stately, but it turned out to be a corporal driving a car.

A local trip associated with a conference in Calgary took me to see Lake Louise (Fig. 44) on 23 May 1971, and to encounter some wild black bears (Fig. 45) rather too near my walk along the side of a railway. A tracked bus (Fig. 46) was used to take some visitors across ice on the Columbia ice-field (Fig. 47). Other Canadian sights were an Indian totem pole in Jasper (Fig. 48), and an elk (Fig. 49). This trip continued with flights southwards, to give a lecture in the University of Alabama. There are many photographs from aeroplanes, not shown here, including one of the strikingly red earth of the Alabama fields around Huntsville as we came in to land there.



Figure 25: Lake Mendota frozen spray



Figure 26: John and Peter on Shorewood ice rink



Figure 27: Icicles at 446 Agnes Drive



Figure 28: Car hiding behind snow at 446

7 Rockies Trip

When we embarked on this, hundreds of miles to the west of Madison, the neighbours were amazed at our decision to go so much farther than they had ever been. We hired a wind-up trailer, shown in the travelling (down) position in Fig. 50 outside 446 Agnes Drive before departure, and in the camping (up) position in Fig. 51 en route, somewhere out on the Great Plains. In the second week of June 1971 we travelled first across Wisconsin and Iowa; then through Nebraska, by the side of the Platte River (from whose mud Richard made some model animals, one of which still survives in Reading). We paused in a lay-by while a cloud with a particularly disagreeable looking structure passed overhead during a rainstorm. Soon the Rockies began to appear, firstly as just a smudge on the horizon, (being gazed at by Peter in Fig. 52), and part of Colorado. We reached the foot of the Rockies at Fort Collins, and then climbed up to the Rocky Mountain National Park, where we camped (Fig. 53) at Moraine Park Campground, Site CT21. We unhitched the caravan, and left it at the camp-site when we took local excursions.

Nobody is allowed to cut wood in the Park for camp fires. It has to be bought. But John wanted to cook hamburgers, so he went around stealing spare wood from other people's camp fires, surreptitiously (Fig. 63).

One of the outings from our base camp, on 11 June, took us "up to the roof of America", as our postcard to Grantham said, high up on Trail Ridge Road which then was the highest continuous paved highway in the U.S. It's highest point is 12183 feet, and we went just beyond that top. There was only tundra and snow there because the snowline was around 9000 feet at that time. The road



Figure 29: Icicles at 446 Agnes Drive



Figure 30: Christmas dinner at 446 Agnes Drive



Figure 31: Lake Mendota from Michael's office



Figure 32: John at the ski jumping

continues towards Steamboat Springs, but we did not go that far. The road is kept permanently swept clear in the summer, as the photograph shows (Fig. 55).

Other activities not far from base camp included horse riding (Fig. 59 and Fig. 60), and finding beaver dams (Fig. 58). One of the highest mountains in the area is called Long's Peak (Fig. 54). Eventually we left the Rockies (Fig. 61) and moved on (Fig. 62) towards Wyoming. Here we found more mountains of a different kind, and then lower ground.

We visited Yellowstone Park, where we were greeted by a black bear on 17th June (Fig. 68). There were also geysers, and steam issuing from the ground (Fig. 66 and Fig. 67). We moved on to Cody, Wyoming, where we saw a rodeo (Fig. 69). By 19th June we had reached the Custer State Park (Fig. 70) in South Dakota, and by 21st June we were in the Badlands there (Fig. 71). We returned to Madison a few days later.



Figure 33: Richard at the microscope



Figure 34: Michael, John and Peter on Mendota



Figure 35: Ice yachting on Lake Mendota



Figure 36: Sewell men at 446



Figure 37: Garden swings in March



Figure 38: Children in the March snowfall



Figure 39: Yard games



Figure 40: Fishing

MATHEMATICS RESEARCH CENTER
COLLOQUIUM AND SEMINARS SCHEDULED

FOR THE WEEK OF
March 29 - April 2, 1971

COLLOQUIUM

Tuesday
March 30 Prof. Stuart Hastings, SUNY-Buffalo, will speak on "Some Boundary Value Problems Arising in Fluid Mechanics" at 4:00 P.M., Room 1236 WARF. Coffee will be served at 3:30 P.M. in Room 1240.

SEMINARS

Tuesday
March 30 JOINT MRC/COMPUTER SCIENCES DEPARTMENT NUMERICAL SOLUTION OF INTEGRAL EQUATIONS SEMINAR - M.Z. Nashed and C. W. Cryer - None scheduled for this week.

Tuesday
March 30 ADVANCED METHODS OF ANALYSIS SEMINAR - L. C. Young - Mr. Y. C. Wang will speak on "A Theory of Boundary Value Problems" at 1:00 P.M., Room 1252 WARF.

Tuesday
March 30 JOINT MRC/MATHEMATICS DEPARTMENT APPLIED MATHEMATICS SEMINAR - M. J. Sewell - Prof. Sewell will speak on "Dual Extremum Principles in Applied Mathematics" at 1:20 P.M., 307 Van Vleck. Please note change of room.

Tuesday
March 30 JOINT MRC/MATHEMATICS DEPARTMENT APPROXIMATION THEORY SEMINAR - A. Sharma and R. Askey - None scheduled for this week.

Thursday
April 1 NONLINEAR FUNCTIONAL ANALYSIS SEMINAR - E. Zarantonello - Prof. Zarantonello will continue to speak on "Projections on Convex Sets in Hilbert Space" at 2:00 P.M., 1236 WARF.

The telephone number for the Mathematics Research Center is 263-2661.

Figure 41: MRC Seminar Program



Figure 42: North Central Convair 580

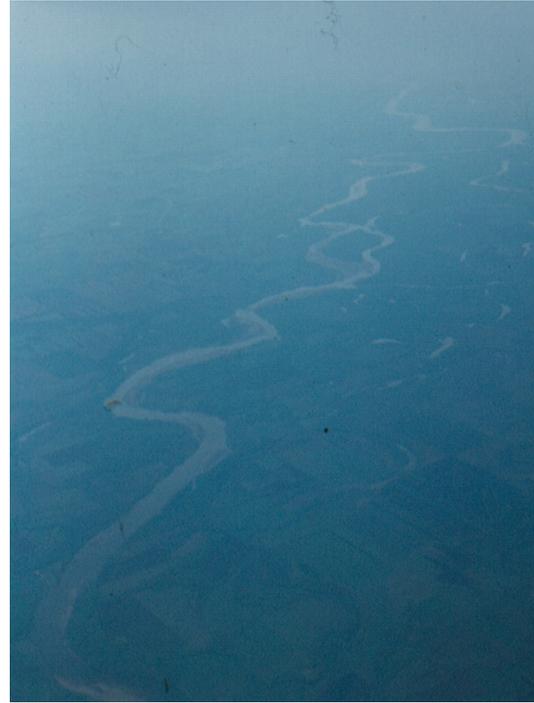


Figure 43: Red River towards Winnipeg



Figure 44: Lake Louise, Alberta



Figure 45: Black bears near the railway



Figure 46: Ice bus



Figure 47: Columbia glacier snout



Figure 48: Totem pole in Jasper, Alberta



Figure 49: Elk



Figure 50: Getting ready to go West



Figure 51: Home on the Range



Figure 52: Peter looking West



Figure 53: Rocky Mountain National Park



Figure 54: Long's Peak



Figure 55: Richard on the high pass



Figure 56: Michael among the high snows



Figure 57: Camp site



Figure 58: Beaver lodge

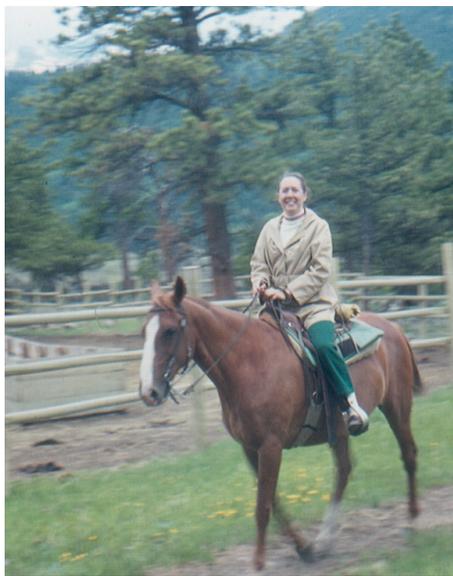


Figure 59: Bridgid in the saddle



Figure 60: John horse riding

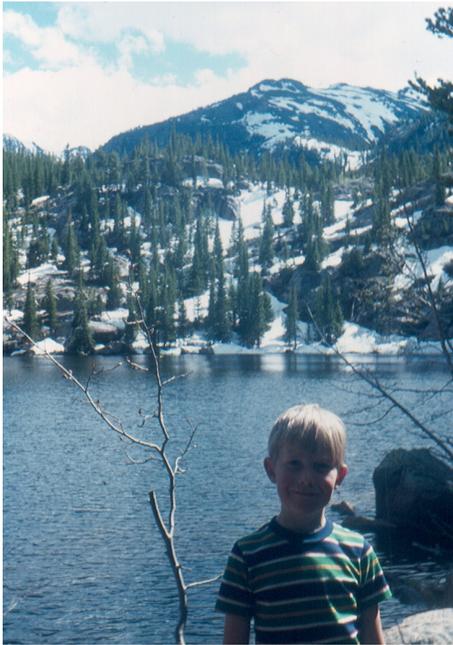


Figure 61: Richard in the Rockies



Figure 62: John and Peter cooking



Figure 63: John cooking with Peter



Figure 64: Wyoming butt



Figure 65: Wyoming mountain scene

8 Return Home

After a few more weeks in Madison, we returned home, but decided to visit Iceland en route for a two day stopover. This meant that we had to change planes in New York. It turned out that Icelandic Airways (Loftleidir, I think) had lost their aeroplane, so there was some hanging about, with the three boys, in the airport until they found it. Eventually we landed at Reykjavik, and went to our hotel. By then Richard was found to be ill, with some kind of tummy bug. This meant, unfortunately, that Bridgid had to stay in the hotel for two days with Richard and Peter, while Michael accompanied John (Fig. 72) on a tour of parts of Iceland not too far from Reykjavik. Finally we flew in a propeller driven plane to Glasgow and then on to Gatwick, where a wheel-chair was procured for Richard from the plane to the arrival area. He recovered soon after we returned to our house at



Figure 66: Yellowstone geyser



Figure 67: Yellowstone steaming earth



Figure 68: Yellowstone bear



Figure 69: Cody rodeo

55 Wilderness Road, Reading. It was nice to see our garden again (Fig. 73), with its large willow tree.

9 References

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Figure 70: Custer State Park bison



Figure 71: South Dakota Badlands



Figure 72: John in Iceland



Figure 73: Wilderness Road web and willow

Sewell, M.J. 1972 A survey of plastic buckling. pp. 85 - 197 of *Stability*, edited by H. Leipholz, Waterloo University Press.

Sewell, M. J. 1987 *Maximum and Minimum Principles. A unified approach, with applications.* xvi + 468 pp. Cambridge University Press. Reprinted 1990 and 2007.

10 List of Letters from America

The following is a list of letters which we wrote from America to our family in England, listed here with a code number such as F8:B - M, 12/9/70. This means the eighth letter in total from (F8) America, written in this case by Bridgid (B) to Mum (M, i.e. Nora Sewell at 26 Gorse Rise Grantham), on 12 September 1970. Other recipients will be identified when they first appear. These code numbers are used in the text.

F1:M - M/D, 26/8/70. Arrival/views from flight/Madison house.

F2:M - Ann, 27/8/70. Home life/children playing outside.

F3:B - M/D, 29/8/70. Bridgid about house facilities/the flight.

F4:M - Paula, 30/8/70. Car quest/a house move/country trips.



Figure 74: Bunty

F5:M - M/D, 1/9/70. Car purchased/school begins.

F6:M - M/D, 6/9/70. Lake Mendota/weather/TV/supermarket/school.

F7:Lost.

F8:B - M, 12/9/70. Tornado watch/circus/Peter playgroup/baby sitters/gardening/John letter.

F9:B - M, 16/9/70. Schools/local roads/rain/bread/house plan/will you come?

F10:M - Paula+Adrian, 20/9/70. Papers/farms/countryside/weather/seminars/swimming/hunting.

F11:M - Ann, 29/9/70. Jim school/Mississippi visit/State Parks/petrol/Capitol/schools.

F12:M - M/D, 4/10/70. Devil's Lake/walk/coloured trees/MRC picnic/first pay cheque/money.

F13:M - Ann, 11/10/70. Table tennis table/J swimming/R science/P argues/B singing/campus.

F14:M - Paula+Adrian, 18/10/70. Bric-a-brac shop/Camp Randall/parking/football/bands/yellow plane.

F15:B/M - M/D, 21/10/70. Swimming/Blue Mounds/shops/flowers/singing/school/houses/shops/M+D flights?

F16:M/B - M/D, 24/10/70. Arboretum/John letter/games/travel.

F17:Lost.

F18:B - M/D, 1/11/70. Autumn/singing lessons/Halloween/J maths/R balsa/TV.

F19:B - M/D, 13/11/70. Coffee mornings/Peter/R school writing/film/play/sleet/shoes/J rash.

F20:M - M/D, 15/11/70. Bridgid/cold/25 °F.

F21:M - M/D, 24/11/70. To school in 7 °F/tree on house 20 °F/mowing/indoor tools/JRP news.

F22:B/M - M/D, 3/12/70. Winter clothes/baby sitters/Thanksgiving/university wives/harpist/music/work.

F23:B/M - M/D, 11/12/70. Snow 16" /boys slide on saucers/R sick/school/winter sport/hat/car.

F24: Lost.

F25: B - M/D+Ann, 20/12/70. 0 °F at 10 a.m./party/Messiah/end of term.

F26: M/B - M/D+Ann, 25/12/70. Xmas 8 °F/turkey/tobogganing 10 °F/Parkinson/R microscope/Boxing Day with Nobles/Peter leads us a dance/M hat/skates.

F27: Lost.

F28: M - M/D, 10/1/71. Papers/skating/winter clothes cost/fishing through holes/blizzard 12 °F.

F29: M - Paula+Adrian, 17/1/71. Microwave money/house sell/impending Lawrence/38 inch snow/skates/maths/lecture tour.

F30: B/M - M/D, 23,29,31/1/71 + 7,21/2/71. Postal strike/M article/P determined/R bored - to Randall School/ski jump/blue sky/10 °F to -10 °F. R enjoying Randall/wind chill/D resigned/Moon rocket/Rockies plans/R out at 0 °F/4.5 foot icicle/3-week UK postal strike. Mail strike/Rolls bust/Lexington invite/thaw.

F31: M - Ann, 14/2/71. Iceland plans/UK postal strike/low temp/boys happy/Rockies plan/new office.

F32: B/M - M/D, 3,7/3/71. Thaw/ice-yachting/John violin/piano/R X-ray/camper. End of postal strike/Lawrence/Lexington visit/English accent/ice-yachting/Peter/John violin.

F33: B - M/D, John - D, 13,14/3/71. Thaw/zoo/grass/daffodils/crocus/bird/work/Haarlem Globetrotters/R letter/Violin/Grandpa retires?

F34: M - Ann + Richard, 18/3/71. Arboretum/walk on grass/then blizzard/snow throwers/TV Fred Rogers/P hide/B sing/P baby?

F35: lost.

F36: M - M/D, 31/3/71. Dad retirement 5 April/MRC colloquium/Spring yesterday/70 °F today/Canada/B sewing.

F37: M - M/D, 9/4/71. Toronto, Niagara, Waterloo, Montreal/R letter - camera 18/4/71.

F38: M - M/D, 14/4/71. Ack. of retirement letter/Niagara visit/Montreal/arranging New York trip.

F39: M - M/D, 23/4/71. Return from Harvard/nice visit to JWH/NY State trip/Cornell/R fishing/J violin/B concert/picnic.

F40: M - Ann, 5/4/71. Postcard from Toronto.

F41: M - M/D, 6/5/71. Lecture schedule 18-22 April/Waterloo/Calgary/Denver/Huntsville/Rockies plans.

F42: B/Peter - M, 21/5/71. Waterloo/30 °F-70 °F weather/booked trailer/trip plans/arboretum/singing/Peter.

F43: M - M/D, 15/5/71. Return from Waterloo/conference/pension/heat/B planning Rockies trip.

F44: B - M, 21/5/71. J birthday/bike/buy sleeping bags/recreation classes for 10-y-o/John letter/Banff.

F45: M - M/D, 30/5/71. Calgary trip/Banff/Lake Louise/bears/glacier/Jasper/Denver/Huntsville.

F46: B/M - M, 7,8,9/6/71. Collect trailer/load up/off to Rockies via Dubuque, the I80, Kearney in Nebraska/rain/Colorado/Loveland/Estes Park/Rocky Mountain National Park/pines/ice box/camp site/ M: humming birds/8200 feet/car not starting.

F47: B/M - M, 12,15/6/71. Rockies/weather/local drives/12183 feet/beavers/horse riding/Richard ill/Buckboard Crossing near Rock Springs, Flaming Gorge Reservoir, Wyoming sage/via Laramie + Rawlins/sagebrush only/no farms/gas 40 miles/Red Desert.

F48: B/M - M/D, 17/6/71. RMNP to Cheyenne, then Laramie (stop for night), then Rock Springs/dry/Flaming Gorge Park (camped)/Tetons/trees/Farson/Wind River Canyon/Pinedale/Jackson/Colter Bay camp/ Yellowstone/Cody/2000 miles so far/geysers/bear/Wapiti River/rodeo/Ten Sleep/ice box/Custer/Buffalo/"No gas for 68 miles"/South Dakota/oil wells/pine woods/rodeo description/pick-up men/bull-dogging.

F49: M - Ann+Dick, 18/6/71. Cody/Bighorn Mountains/Tensleep/Powder River Pass 9666 feet/Yellowstone/moose/2000 miles.

F50: M - M/D, 27/6/71. Back in Madison/82 °F/Badlands/South Dakota/Minnesota/all OK at home/3400 miles in 19 days.

F51: B - M, 7,12/7/71. 90 °F/Bunty 5 weeks/scrapbook/projector/packing/J+R pottery/July 4 fete/art exhibition/State parks/Richard letter.

F52: B - M/D, 23/7/71. 90 °F/TV cartoons/pottery classes/posting books and papers/no gardening done at 55 Wilderness Road/M lectures.

F53: B - M/D, 31/7/71. Clearing up/visit to Dick Shield/Bunty visiting en route to UK/Illinois/Madison party/return plans.

F54: B - M, 17/8/71. Packing/Andrew visit/sold car/Iceland visit/Gatwick 26th/money.

11 The Story in the Letters

I have listed above the 54 letters written by Michael and Bridgid, from America to relatives in England, which tell the story of our adventures. There have also survived 152 letters to us in America, from relatives and friends in England, giving the news from home. All these letters allow an informed account of our adventures to be reconstructed, with information more substantial than the pure memories which were recounted in the above commentary on the 30 photographs (selected from about 700 35mm colour transparencies).

We also have a scrap-book kept by Bridgid of our trip to the Rockies in June 1971, and some associated paper souvenirs. The information in that archive will also be drawn upon here in due course.

Our Odyssey arose from the fact that Michael published an article called "On dual approximation principles and optimization in continuum mechanics" in the Philosophical Transactions of The Royal Society of London in 1969, Volume 265, pages 319 to 351. This was noticed by Professor Ben Noble, who was then a permanent staff member at the Mathematics Research Center in The University of Wisconsin at Madison. Ben was a Scot, hailing originally from Fraserburgh. Ben had met his wife Denise while he was on the staff of the Mathematics Department in The University of Keele, in Staffordshire. Ben and Denise had subsequently emigrated with their family of a boy and a girl to the United States in about 1962. Ben wrote to me at Reading in 1969 to express his interest in my paper, and he invited me to take my family to stay with his family at a cottage which they owned in the English Lake District, in the summer of 1969. The house was called Mill Cottage. It is at a small hamlet called Broughton Mills, which is a few miles north of Broughton-in-Furness in the southern part of Cumbria.

This visit turned out to have many consequences. Not only was it the trigger which led to an invitation from Ben to me to take my whole family to Madison for the academic year 1970-1971. It also introduced us to the Lake District, where we have been on many subsequent holidays. We walked the hills from rented holiday accommodation. We also stayed again with the Nobles in the

following twenty years and more, not only to walk the local fells, but also to discuss mathematics and prepare joint papers which were published.

Ben's own connection with the Lake District originated via his wife Denise. He was her second husband. Her first had died in middle age, leaving Denise with two sons and a daughter, who she was bringing up at Keele where her then father-in-law was Vice-Chancellor. He was A.D.Lindsey, a former Master of Balliol College Oxford. The Lindseys owned property in the Lake District. When Ben retired from Madison, he and Denise moved back from Madison to Mill Cottage. Much later, decreasing mobility obliged them to move again, to a bungalow on the outskirts of Barrow-in-Furness. They both died around 2005.

Thus plans were laid, and came to fruition during 1969-70, for me to be offered a one-year appointment as Visiting Professor at The University of Wisconsin, at the Madison campus (the University has several campuses within the State). This was for the twelve months from September 1970 to August 1971. To take this up I was able to secure leave of absence from my post as Reader in Applied Mathematics in the Mathematics Department at Reading University. I had arrived there in 1966 after previous posts at the University of Bristol (Research Associate in Theoretical Mechanics from 1963-66) and the University of Nottingham Mathematics Department (Assistant Lecturer 1960-62 and Lecturer 1962-63).

The Mathematics Research Center in Madison was strongly funded by the United States Army. This allowed it to have a membership of, at any one time, about 30 short-term Visiting Professors like myself, and about 10 tenured Professors whose subject areas had some connection with topics which might be thought to be relevant to technical problems of interest to the U.S.Army. These topics included Optimization, Applied Mathematics, Applied Analysis, and Statistics. There was an ongoing liaison between the Director of the Mathematics Research Center in Madison and an office in Washington of the U.S.Army.

My technical interests within Applied Mathematics at the time were centred within the area of Mechanics of Solids, especially the plasticity of metals and soils, and optimization associated with the idea of maximum and minimum principles. Thus these were, in principle, relevant to the preoccupations of the Mathematics Research Center.

Our domestic preparations in 1969-70 for visiting Madison the following year included the letting of our house at 55 Wilderness Road to tenants, and the acquisition of a rented property in Madison. With the aid of our friends Elizabeth and Tom Heydeman we were able to let our Reading house first to Professor Greenland (from September to May) and then to Mr. Babiker (from May to August). Elizabeth (with whom Bridgid had been at the Perse School in Cambridge) and Tom ran a letting agency in their spare time during those years. We were able to lend our much-loved (first) car, a white Triumph Herald estate car PJB 756F bought in 1969, to our friends Ann and Simon Johnson for the whole year. Simon was Musical Director of the Reading Bach Choir, with whom Bridgid sang in those years. Before our departure for America we were able to secure an agreement to rent a house at 446 Agnes Drive in Madison. This proved to be a very good arrangement, and we were able to move straight into it on arrival. The house was owned by Mr. and Mrs. Hellerstein. Thus the most important practical arrangements were in place before we left for America in August 1970.

So it was that we left London by air for Chicago on 25th August, in the rather dramatic circumstances described at the beginning of the above commentary on the 35 mm photographs. The account of our subsequent twelve months of adventures which follows is based on our letters to England mentioned above. Our first letter (F1), written by me to my parents in Grantham, began "We made it. No hitches". We got to bed at 9.30 p.m. CST, which was 3.30 a.m. BST. The temperature rose to 90 °F the next day. We visited Richard's school on the following day. Air conditioning in the house and school were welcome, and we drank iced orange juice. The flight had passed over Lake Windermere, Kintyre, and then the southern tip of Greenland showing its glaciers, fjords,

ice-flows and icebergs. Next was Labrador, Quebec, Ontario, Lake Huron (evidently the great circle route) and Michigan, to Chicago at 10.00 p.m. BST. Blue sky all the way “seemed like a perpetual afternoon”. Peter had a half-hour sleep as soon as the engines were switched on, and “bounced around with great energy” for the rest of the flight. Ben drove us to Madison (120 miles), where Denise had filled our fridge.

The house at 446 Agnes Drive (Fig. 5) was “very nice, with gauze on the openable windows” to exclude the crickets which “made the most tremendous racket all night” outside. The individual timber-framed houses in a rectangular street plan on rolling wooded ground were laid out without garden fences, giving an open plan effect which allowed the children’s games to roam in groups of six or eight (F2) rapidly over the ground between them all. A chipmunk lived under our front porch. The children had a set of swings in the garden.

By 29th August Bridgid had time to write an eight-page letter (F3) describing our new circumstances. For example, a novelty was the washing-up machine - “we just load it (which the boys can do)...Peter gives a running commentary on the stage reached, i.e. wash, rinse, dry, by watching the indicator light”. Thirty-nine years later Michael is still the washing-up machine in England. The clothes washing machine and dryer means that there is no washing line in the garden. The fridge was another novelty, as was the supermarket. The door-to-door milkman delivers a comprehensive pre-ordered list of dairy products, including John’s “popsicles”. Neighbours are sociable and helpful. The garden has only grass and young trees. The gauze window screens keep the insects out, including the noisy crickets. The telephone man brought a portable phone as well as a fixed one. The house is on three levels, which include a laundry area, and basement or playroom under the kitchen and main living area. Michael borrowed Ben Noble’s car (left-hand drive, of course) to help search for one for us to buy. As Michael was trying one car he said to the salesman: “What’s that noise?”. The reply was: “It’s the crickets in the corn-field”. Ben and Denise Noble took us all out for the day to visit their plot (64 acres) in the country where Ben is building a timber-frame house with his own hands. Super-hardware stores sell all the materials needed.

The boys are very happy, getting used to the accent and the heat, and doing tests in their first week at school to establish their needs. All the many novelties within the aeroplane were described in this letter (F3), because they were unknown to Ben and Nora Sewell.

A system was evolving that different recipients were asked to circulate letters to reduce repetition, so next Michael wrote (F4) to Paula and Adrian, who were living at 8 Friar’s Court off Lenton Road in Nottingham. My search for a car is described, and also trips into the surrounding Wisconsin countryside. It has a large-scale, gently undulating landscape, standard farm buildings, and State Parks for recreation. The temperatures were into the high 80 °Fs by day and not less than 60 °F by night. There was rather a sweet odour in the air, especially out in the country, perhaps because of the ripening maize.

On 1st September, less than a week after arriving (F5), I paid 900 dollars (375 pounds) for a 1966 Mercury (Ford) Monterey car, which had done 50000 miles. It is seen in Fig. 7. I rang up the previous owner (which is the system) and he gave it a good report. It was an automatic, of course, and it had the feature, novel to us and amusing to the boys, and useful in hot weather, that the *back* window could be wound down by a dashboard switch. This car proved to be very reliable. School had begun for John and Richard, and they liked it. They had individual desks, and smaller classes than at home.

By 6th September we had begun to explore the local area by car (F6). We visited Lake Mendota, the largest of several lakes in the area, which seemed to be of glacial origin. Madison spreads from the southern shore of Lake Mendota, and an attractively idealised view of it is featured on our personal bank cheques (Fig. 12). We drove through a thunderstorm to our drive-in bank, another American novelty. the cashier speaks through a microphone and “of course, we didn’t get out of the

car”.

American TV was “really dreadful”. Ubiquitous commercials, adverts for *local* shops, but also cartoons which the boys enjoyed. No British news. TV also showed us the shock of American football, “playing the man and not the ball”. Bridgid “takes a long time to get round the supermarket” because of the huge variety of choices, such as five or six different varieties of melon. The ice-cream parlour sells 50 different varieties.

We had a tortoise in our Reading garden, which evidently migrated to Grantham for the duration of our absence. On 12th September we reported (F8) a “tornado watch” because of an approaching line of thunderstorms, but nothing worse than heavy rain happened, with a 20 degree (Fahrenheit) drop in temperature. If there is a tornado sirens are sounded and we are supposed to go down to the basement, leaving the windows on the lee side of the house open. We went to a performance of Ringling Brothers and Barnum and Bailey Circus in the Memorial Colliseum. There were three Rings, so sometimes three simultaneous performances, and “the American children all ate popcorn continuously”. John wrote to Granny Sewell about it: “there was a human cannonball”. We also visited the University Arboretum (13000 acres), and a zoo. Bridgid registered Peter for a playgroup (two hours on each of three mornings a week, for 21 dollars a month). “Richard has been having a hole in his pocket again”. We were invited to a party at the Nobles to meet colleagues and wives. This was important for getting to know the teenage girls who do the baby-sitting (50-75 cents per hour). Bridgid is getting used to the novelty of being able to shop in large quantities and keeping the food in the freezer for six months”. Michael cuts the grass with the motor-mower, negotiating the trees. Bonfires are not permitted (wooden houses) so we have five large dustbins.

“Richard was most gripped by the man who was shot out of a rocket at the Circus, 100 feet to a net. And a tiger which rode a horse”. The novelty of adverts on the TV “are very disconcerting”, especially between items on the News. Peter has a new phrase - “What is that advert about?”. Michael reported that he can “work very well in the study here”. “The basement is used by John for roller skating, and Richard to make his rocket kit”.

By 16th September Bridgid was able to report (F9) more about Midvale School, which is ten minutes walk away. John’s work is too easy (the teacher uses him as an assistant teacher), but another mum “enjoyed hearing his accent”, which all the small children try to imitate. Richard’s class are learning to form their letters. John and Richard leave the house at 8.00 a.m., come home for lunch, and are back again by 4.00 p.m. Michael is urging his parents to begin to think of when and how they might visit us in the following summer ... but they never came. He has accepted an invitation to spend the week of 10th to 14th May 1971 at Waterloo University in Ontario, Canada.

Michael wrote to Paula (F10), including a description of how “the farm buildings all seem to be of a similar pattern”. The corn is ripening, the lakes are numerous, and hunting, shooting and fishing are major pastimes for the locals. John started a course of ten swimming lessons (three dollars for the whole course). A letter to Ann (F11) reports a visit to the Mississippi River (93 miles away), which forms the western boundary of Wisconsin at Wyalusing State park. Michael took John and Richard to see the State Capitol building in Madison (1907, marble, gold leaf and walnut). Richard (Second Grade) takes out Sixth Grade books from the school library, and the librarian would not believe he could read them without checking with the teacher.

“Fall” was beginning to happen, and on the afternoon of 4th October (F12) we drove about forty miles north of Madison to Devil’s Lake State Park in Sauk County. The boys played on a beach, and then we walked round the Lake (three miles), with a 500 foot cliff en route. Peter was carried for part of the way. Nights are getting cooler (upper 30s Fahrenheit), but 75 °F at midday. The birches are silver, and leaves are turning (deep red, orange and peach yellow) before the Fall. A shorter twilight than at home, because we are ten degrees further south. “We shall have to go camping”.

The hospitable MRC had a family picnic in Dane County Park near Mount Horeb (eighteen miles). Families ate at picnic tables, and played with frisbees and on swings, and we played cricket. My bowling action attracted admiring comment - "Hey, that's a cute wind-up you've got there".

I received my first pay cheque with "no deductions at all". Previously we borrowed (there was an easy system for it) 3937 dollars = 1620 pounds.

The next weekend (F13) saw us off to a picnic near Milwaukee (127 miles). We bought a table tennis table for our basement. John is having "beginner's swimming lessons", and Richard is lapping up science books (electric circuits). Peter had an argument with another boy at playschool, and Bridgid was sent for (by telephone) to come and pacify him.

Bridgid is hoping to join a choir (Messiah), but "owing to a shortage of trumpeters, the End of the World will be postponed". The Campus bounding Lake Mendota is very beautiful, and Michael has been taking photographs of it. My 7th floor office has a good view of part of the Campus and Lake. The publicity department of the Bank wrote to us (not knowing that we were already their customer) offering a "free checking account without charges" for twelve months. So they rescinded a 2.35 dollar charge for printing cheques, and relieved us of all other charges.

We reported to Paula (F14) that we had found the Bethel Lutheran Shoppe, run by two elderly matrons, to be the local equivalent of Jim Baxter's bric-a-brac shop in Grantham. The silver had no hall-mark, of course, so it was hard to assess.

Major highlights were visits with the boys to Camp Randall Stadium to see an American football game, and to see the Wisconsin Badgers play the North-Western Wildcats in another stadium. These were very colourful events. The sons of adjacent house-owners stand outside their gardens touting parking space there, to visitors to the Stadium (from 25 cents to 1.50 dollars depending on distance from the Stadium). The playing surface is not grass, but a slightly cambered carpet. Musical entertainment during intervals was provided by energetic bands. Circling overhead was a beautiful mustard-yellow monoplane trailing a slogan in red on clear plastic exhorting everyone to "Serve and savour Wisconsin potatoes".

A long Sunday trip to Kettle Moraine State Park, about 25 miles south-west of Milwaukee, included the collection of some prairie autumn "deadery", such as bull-rushes and bursting milkweed pods, some of which we still have.

Bridgid reported (F15) that John is enjoying his swimming. We visited Blue Mounds State Park. This has two 200 feet observation towers on top of a wooded hill, from which we could see for thirty miles on a clear blue-sky day. On the return journey we did some shopping in Mount Horeb, a town with some Norwegian settlements. We bought Peter an all-in-one snow-suit (jacket, hood and trousers), from a brand-new Madison shopping centre, all under one roof and 1/4-mile square. Some nights are now well below freezing, but the days are dry and the sun is warm. Bridgid began singing lessons with a sprightly 70-year-old, and she has also joined the Madison Civic Chorus: so she is trying to sing Handel's Messiah with an American accent. John's mathematics teacher is really old-fashioned, so Bridgid is teaching him.

Michael sent (F15) a list of 33 MRC current staff. This included Bryce McLeod from Oxford, whom Michael already knew. One of the daughters of Bryce and Eunice is Bridget (John's age), who happens now (2009) to be the Headmistress of All Saint's Junior School in Maidenhead, which John's first three children have attended thirty years later, and Daniel may do so. Michael was still hoping that his parents will "try to get one of the May flights", but in the end they did not get any flight (or boat) as we have seen.

We visited (F16) the University of Wisconsin Arboretum, which has a large tract of rehabilitated



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Figure 75: Coliseum Circus
35

9.85 - 1.50

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FROM	TO	AIRLINE	FLIGHT	DATE	DEPARTS LOCAL TIME	ARRIVES LOCAL TIME	INFLIGHT MEALS
Madison	Chicago	NorthCent	130	18 APR	3:00pm	3:40pm	
Chicago	Syracuse	American	304	"	7:00pm	10:27pm	steak AA 64 chicken 9.10
Syracuse	Massena	SURFACE	Greyhound	20 APR	Dep Syracuse 9:50 AM Arr Massena 1:35 PM		
Massena	Burlington	AirNorth	2961	20 APR	7:08pm	7:56pm	
Burlington	Albany	Mohawk	44	21 APR	1:00pm	1:32pm	
Albany	Boston	Executive	525	"	6:15pm	8:00pm	
Boston	Chicago	United	153	22 APR	6:40pm	8:07pm	dinner
Chicago	Madison	NorthCent	577	"	9:40pm	10:18pm	
Narrad				John Hutchinson	617-557-6855		
3.45	Clarkson Civil Eng Dept	315-268-6529	Gordon Bakson	315-265-6765			
4.30	Cornell Civil Eng Dept	607-256-3334	RH Gallagher				
4.00	Rensselaer School of Eng.	518-270-6203	Arthur A Burr				

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Figure 76: Harvard-New York Tour

prairie, with all kinds of grasses. Richard said “Are the Indians allowed to get civilisation on their reservations?”. When asked if civilisation was a good thing, he said “Sometimes yes, sometimes no. if the Indians have got their own society, and civilisation comes to it, it might spoil it”. John wrote a letter: “Yesterday was very hectic...”, shopping, football game, dinner, swimming,...”.

Michael received an invitation (28th September 1970) from the University of Toronto Civil Engineering Department to lecture on the Eastern Canada - Northern New York Engineering Science Seminar Circuit (Universities of McGill [Montreal], Toronto, Waterloo [Ontario], McMaster [Hamilton, Ontario], Clarkson [Potsdam, New York], Cornell [Ithaca, New York], Rensselaer [Troy, New York]); and another one for a 1971 Seminar on Stability at Waterloo University.

Bridgid wrote an eight-page newsy letter (F18, F19) to Grantham. Misty autumn days with leaf fall, and therefore leaf raking, have arrived. “A delightful lady in her late 70s” has agreed to give Bridgid a one-hour singing lesson each week for a dollar. She practises on a piano in a room at Peter’s nursery school. Hallowe’en is a big thing this time of year (31st October). The shops

are full of costumes, and the boys had to dress up for an afternoon school party. John was “on the committee for decorating his room” with spider webs (string) and spiders (from pipe cleaners). At home it was “trick or treat” around the neighbourhood with their friends, and they came back laden with sweets in a bag. We had twenty or thirty callers at our front door. We carved our 18-inch pumpkin and put it on the front step with a lighted candle in it.

John is about three years ahead of school maths, so Bridgid teaches him and he does that homework in school time.

Bridgid has been to several coffee mornings, including one for the wives of twenty-five of Michael’s colleagues (with a well-behaved Peter).

Richard’s teacher told us how much Richard’s writing and concentration have improved. Michael and John went to a children’s play (Aladdin) done superbly well, and “John came back with his eyes shining”.

It was time (early November) to start buying winter shoes for the boys, and to find out the procedure for doctor’s visits, or rather lack of them (telephone, and clinic visits by car).

Bridgid and Michael went to an “At Home” at the MRC Director’s house from 4 p.m. to 6 p.m., and we left the boys in the care of neighbours.

Michael writes (F20) that 14th November was the first day that the temperature did not get above freezing, and it was overcast with a polar wind. The TV was advertising snowmobiles (600 dollars). Someone drove out of a side road and collided with our car on the main road. He admitted liability and his insurance will pay 200 dollars for a new “wing”. Peter is a “real wilful handful”. He speaks of “Daddy’s Uniderfawy”.

A postcard (15th November) from Michael shows Madison and Lake Mendota, and remarks that the first three days of the Wisconsin deer hunting season have produced a bag of fifteen hunters (four by gunshot and eleven by heart attacks).

On 24th November (F21) “your grandsons walked to school in a temperature of 7 °F and a 25 m.p.h. wind (equivalent to –30 °F in still air). Richard only had his eyes showing” and John left his gloves off because he was carrying something - “he was crying by the time he arrived home”. The temperature had dropped 40 °F in twenty-four hours, but then warmed up somewhat. No snow. We made things with balsa wood in the basement. Richard found a “pod of seeds from a honey-locust tree” and a “wasps nest”. John is learning table tennis and basket ball (four dollars for a ball and goal-ring). “Peter is determined and mischievous and aggressive - he climbed to a high cupboard for sweets”. Bridgid is now driving herself, for example to singing lessons”.

By 3rd December (F22) we had the warmest recorded December day (62 °F). The local teenagers advertise their baby-sitting services, so we use that in the evenings, for example so that we could go to an “MRC pot-luck supper”. For Thanksgiving on 24th November we were “invited to a neighbours house (the Londons, who have two girls). It was turkey, cranberry sauce, sugar roasted sweet potatoes, cranberry nut bread, etc. Then an apple pie. The children played downstairs and we chatted upstairs.

Bridgid went to The Association of American University Women party for foreign university wives (80 American, 40 foreigners): seven harpists; family origins; Anita Rosser (MRC Director’s wife); musical. Peter was parked with a friend - he really enjoyed it. He chatted to nursery teachers and really enjoyed himself. Bridgid has bought a coat.

Michael is rewriting a paper with Ben Noble by telephone (75 minutes on one occasion). It is

bright but cold, with no snow yet. The boys are playing happily outside in a temperature of 20 °F.

By 11th December Bridgid was reporting (F23) the first snowfall - 16 inches in 20 hours, which closed all schools and the University. Snow ploughs worked all night. One cleared a track in Agnes Drive. The neighbours used motorised snow-throwers to clear their drives. It was great fun for the boys to slide on handle-less dustbin lids. Everywhere is very quiet. The TV advertises snowthrowers and snowmobiles. The car has been repaired (204 dollars for the front wing). Richard announced that “The sort of job I want is one like Daddy’s without any responsibilities”. He watches me sit at home working. [This is exactly what he does himself in 2009!].

Our pre-Christmas letter (F25) tells of a farewell house-party for fifty people from a local college. Peter went very happily to a four-year-old friend. Bridgid sang in The Messiah in the Stock Pavilion - there were 2400 seats, and local TV. There was a neighbourhood Santa which made Peter happy - “I’ve seen the real Santa”. Snow on 15th December.

Our Christmas letter (F26) reported bright sunshine and 8 °F, but a stiff breeze so there was a -25 °F chill factor. We had turkey and cranberry sauce, and Yorkshire pudding for John. Michael and John went tobogganing on Christmas Eve, with the thermometer at 10 °F. We heard about Granny’s birth date confusion (1st March or 3rd March?) on her Birth Certificate. “Are they going to prosecute you?” We heard from Grantham that Reverend Jack Parkinson of Trusthorpe had died, aged 53. For Christmas John had a camera and Richard had a microscope. Peter had a wooden car and plastic tools. We spent Boxing Day with the Nobles at their country house, and we did some sledging in the snow there. Then we returned to their Madison house for tea and mathematics until 8.45 p.m. Michael has bought a furry hat with ear flaps, which can be seen in some of the photographs (eventually he left it in a restaurant, to his regret). All-time low of -23 °F this morning.

On 10th January (F28) we went skating on a flooded field under blue skies and 20 °F at 10 a.m. Very pleasant with no wind, and John was getting on very well. In the afternoon we walked out onto Lake Wingra. Two fishermen were fishing through holes in a foot thick ice cover, which was covered with a foot of snow. We have had another foot of snow. The boys went to school by car because the temperature was -12 °F, but they walked home at lunchtime when the temperature was above 0 °F.

A letter (F29) to Paula and Adrian tells of a microscope bought for Richard which was being used well, and a total of 38 inches of snow so far, with three mornings of -12 °F at school time. The Defense Documentation Center found 1200 references for me to write a survey article on plastic buckling.

By this time (23rd January, F30) there was a prolonged postal strike in England, and our letters were being returned to us by the U.S. Postal Service, because they were not accepting mail for England. Peter “is very determined and will not do anything he doesn’t want”. Richard is bored at school: “the work’s so easy and I start day dreaming”. So we moved him to Randall School where he did much better. It was an 8.15 a.m. start, and transport by car because it was further away.

Winter sports included a visit to see ski-jumping, and another to see ice-yachting on the lakes. Bridgid and Michael have ice-skates, and Richard and Peter have been sliding on metal saucers. The temperature is -12 °F so we go everywhere by car, and there is two and a half feet of lying snow except on the roads. But the sky is blue and the sun is warm. The boys walk to school if the temperature is above 10 °F. We have begun to think about flying home via 48 hours in Iceland. The temperature dropped 50 °F in 36 hours.

The Mathematics Research Center has moved into new offices on the 11th and 12th floors of a skyscraper, and from my office there is a splendid view of the Lake. But I do work at home a lot. Bridgid is beginning to read brochures to plan a summer trip out west (Glacier National Park?).

Richard complains that “nobody will come out with me when it gets below zero”. The English postal strike has lasted three weeks now. Rolls-Royce have gone bust, and St. Paul’s is falling down. There is an invitation for Michael to go to Kentucky. The highest temperature on Sunday was -4°F . On 23rd January we had the first rain since November. There has been a thaw since 15th February. Mother’s *new* birthday has been celebrated.

We wrote to Paula (F27) with six photographs, and Mother (F30), and then Ann (F31) to suggest meeting at Reykjavik in August, and we noted that the UK money goes decimal on 15th February 1971. John is cheerful in low temperatures, and goes skating in 20°F . John refuses a lift to school in the car when it is -10°F because he wants to watch the end of the breakfast-time cartoon before setting out to walk to school (he wears long underpants). Peter is “very determined” [we have noted that previously].

A birthday letter (F32, March 3rd) to Grantham mentioned a fortnight’s thaw, and some brown grass showing. Michael drove an ice-yacht, and John had a ride in one. John is learning the violin - “thrilled with it, and practises”. We rented a piano for John and Bridgid. Richard’s new school is successful. Richard had a stomach X-ray (not serious). We visited a camping trailer exhibition. We may hire one (70 dollars per week). Monday 8th March is the end of the UK postal strike. Paula’s baby has arrived. Michael flew to Lexington and back (two days) to give a lecture. Down there at “Blue Grass Field” it was Spring and 60°F , and they have a very different accent. It was nice to walk on grass there, for the first time for three months.

Peter is “determined” [again] and climbs into high kitchen cupboards to get what has been hidden from him, or just to hide. John has had three violin lessons. Bridgid (F33) said she took John and Richard to see Haarlem Globetrotters. John wrote to say that “I thoroughly enjoy my violin but my shoulders usually ache after a little practise. A few days ago I could play my first piece”.

A “late winter storm” (F34 to Ann) from Oklahoma to Michigan gave us six inches of snow on 18th March. So there were snow-throwers again, which sound like lawn-mowers if one is not looking outside. Fred Rogers and The Flintstones are part of the TV diet. John is keen on his violin lessons, Richard enjoys his new school, and a very determined Peter is “great fun, very bouncy, and climbs into kitchen cupboards to hide in them. He cleared out the preserves cupboard for the purpose.” Bridgid has a book of songs arranged by Britten, which includes the “Foggy, foggy dew”. But her very good but antique 80-year-old Republican singing teacher said “I don’t think we should like to sing that. It has that innuendo, you know.” Michael said the ice-yachting was “exhilarating and easy”.

A reply (F36) to a remark from Grandpa Sewell says “the boys will not be interested in the Workshop merely being ready for model-making”, but “they will expect the models to have been made”. We sent our good wishes for his retirement ceremonies on 5th April. Michael will be lecturing in Toronto on that day. We went for two months without receiving any letters at all. We sent a notice of a talk by Michael at the MRC on 30th March about “Dual Extremum Principles in Applied Mathematics”. We had fourteen inches of snow in 36 hours on 18th and 19th March. Then Spring was on 30th March, in the morning. I gave a lecture. In the afternoon it was over 60°F . I finished a 144-page paper on “A Survey of Plastic Buckling”. I have agreed to give lectures (150 dollars each) in the Universities of Toronto, Waterloo, Montreal and Cornell.

On 7th April I lectured at McGill University in Montreal. Before that I lectured at Toronto University. Then (F37), en route to Waterloo, I was driven to see Niagara Falls. I lectured at Waterloo University. Then I flew 350 miles to Montreal. I took off just after sunset, and a few minutes later, from the plane, I saw the sun rise again, in the West! There was 150 inches of snow in Montreal.

By 14th April we had heard about the retirement ceremonies at the Boys’ Central School, and were (F38) asking “What will you do?”.

line

Dear granny,

The chart at the right shows how deep the snow was at the beginning of winter.

I think of you every day.

Richard

Figure 77: Richard's letter 1

146 Agnes ~~dro~~
Madison
Wisconsin
March 14, 1971

Dear Grammy

Thank you for the turntables. In answer to your question, we ~~are~~ ~~are~~ need six more hinges if you could get them for us. Did you like the pictures I took? I ~~thoroughly~~ enjoy my violin but my shoulders usually ache after a ~~little~~ little practice. ~~can't~~ A few days ago I ~~could~~ could play my first piece. What is ~~po~~ Grandpa going to do when he retires?

Love John

Figure 78: John's letter

By 23rd April (F39) I was reporting a visit, via a small plane, to Harvard University where my friend John Hutchinson entertained me. I went to a party in the country in New England, and then stayed the night in his flat in Cambridge. I lectured at Rensselaer (Troy) and Cornell. While I was away Richard had been fishing with his own rod, and caught the craze. John relishes all the rough games of hide and seek (called “ditch” in America). After Peter had stolen some chocolate by climbing to the top shelf he said “Shush - I must be quiet”. Bridgid sang in Belshazzar’s Feast. My next trip, in two weeks, will be Ontario, Calgary, and Huntsville in Alabama.

A postcard from Toronto comments on the use of English names for the suburbs there, such as Scarborough, Weston, and Richmond Hill (familiar but all in the wrong places), and on the novelty of buying the Observer.

On 6th May (F41) the boys, especially Richard, were prompted by letters from Grantham to show that they were keen to go back to England. Michael’s recent itinerary for a lecture tour was Madison-Chicago-Syracuse-Massena-Burlington-Albany-Boston-Chicago-Madison, all by plane except for one four-hour bus trip from Syracuse to Massena. Another three-day trip to Waterloo is in prospect, to talk about my Plastic Buckling article. Then on 17th May I go via Minneapolis and Winnipeg to Calgary for a five-day conference, followed by an organised trip through the Canadian Rockies, to Banff, Lake Louise, Jasper and Edmonton.

Next (25th May) I go via Denver (24 hours) to Huntsville in Alabama, for a two-day conference and lectures about U.S. Army mathematics, returning to Madison on Friday 28th May (that day happens to be my parents’ 40th wedding anniversary).

We have looked at camper trailers and we will hire one tomorrow (7th May). The planned route, leaving on 5th June, is the Rocky Mountain National Park in Colorado for a few days, then north-westwards along the Rockies to the Grand Teton and Yellowstone Parks in North-west Wyoming, then homewards via the Black Hills of Dakota and the Badlands, taking three weeks in all. The trailer hire will cost 65 dollars per week. Bridgid has returned a hired sewing machine, which she used for summer dresses.

By 10th May Bridgid is describing (F42) the cool mists (30 °F) and bright (70 °F) spring days, with leaves coming out, and no midges. We have booked to pick up the Starcraft trailer on 5th June for three weeks to the Rockies, Wyoming and Dakota. The University Arboretum prairie was being “fired”. Bridgid sang in a performance of Handel’s Sampson (four-hour rehearsals). She is teased for her English accent. At a local party she “naturally meets all the wives, via coffee mornings or natter in back-yards”. “Peter is quite a lad, swinging high and fast”.

Very nice welcome (F43) by the whole family at Madison airport (Truax Field) when I returned from Waterloo. Boys very enthusiastic. Banquet near Waterloo in the country when I was away. Bridgid is doing all the planning for our trip, so we shall be alright.

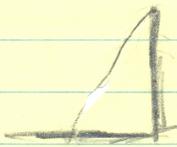
John’s 10th birthday (F44) was celebrated by renting a bike for him for ten dollars, and by a party in a local cafe with Chuck Ketterhagen from next door. We have bought sleeping bags for the trailer (twelve dollars each). John has enrolled for sculpture and pottery classes for three weeks. We have a photo, from an advert, of the caravan which we hired.

The next letter (F45 - 30th May) describes substantial journeys by Michael. I went to Calgary (mostly over cloud) via Minneapolis (skirting a thunderstorm) and Winnipeg (skyscrapers out of a flat plain), before continuing for 750 miles to Calgary (4500 feet above sea level), after which the land rises to the Rockies at 11000 feet 80 miles away. At Calgary I attended the Third Canadian Congress of Applied Mechanics (600 people). During it I took an afternoon trip to Banff (seeing mountain sheep and elk), and at the end I went again to Banff for the weekend, driving through a

April 18, 1971

Dear granny,

Here are some photos
that I took at tower
hill state park with
my new camera which I
got for my birthday.



Love
Richard

Figure 79: Richard's letter 2

Dear Granny,
Thank you for the
plane and hinges. They
are very nice. I am
getting impatient to ge
t home. I've got a new
fishing rod as well
We like getting your le
ters.
love Richard

Figure 80: Richard's letter 3

ITINERARY



FROM	TO	AIRLINE	FLIGHT	DATE	DEPARTS LOCAL TIME	ARRIVES LOCAL TIME	INFLIGHT MEALS
Madison	Minneapolis	Northwest	205	May 17	12:05pm	12:53pm	
Minneapolis	Winnipeg	Northwest	429	"	1:45pm	2:52pm	
Winnipeg	Calgary	Air Canada	853	"	5:25pm	5:20pm	Dinner
	Surface						
Edmonton	Calgary	Time Airways	35	May 25	9:15am	10:30am	request
Calgary	Denver	Western	481	"	12:50pm	3:51pm	Lunch
Denver	Memphis	Braniff	171	May 26	4:00pm	8:15pm	Snack
Memphis	Huntsville	Southern	68	"	8:45pm	9:23pm	
Huntsville	Atlanta	Southern	62	May 28	3:48pm	5:30pm	
Atlanta	Chicago	Delta	136	"	6:10pm	6:46pm	Dinner
Chicago	Madison	North Cen.	469	"	8:45pm	10:00pm	

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Figure 81: Calgary-Alabama Tour

Park containing a herd of bison. Then I went up a ski-lift (7500 feet) to see Banff from higher up. Some people swam in a sulphur hot springs pool. In the evening we reached a log cabin by the hotel at Lake Louise. After dinner I went for a stroll not far from the hotel. It was nearly dusk, with other people within hailing distance. "There just happened to be two black bears as well". Someone else who went for a walk along a road, and was eventually given a lift, saw a bear come out onto the road. It had been following him. The bears are protected from hunters because it is a National Park.

The next morning we visited Lake Louise itself. It was ice-covered with mountains on three sides, and a sheer face with great ice blocks ready to fall from a glacier. We drove past three more ice-covered lakes at 6000 feet before having lunch on a Saskatchewan river crossing. In the afternoon we visited a glacier off the Columbia Icefields. Then we moved on to Jasper, and early next morning did 235 miles to Edmonton, the capital of Alberta (with the temperature at 78 °F). The next day I flew from Calgary to Denver, over Montana, Wyoming and Colorado. The following day I flew over Oklahoma and Arkansas to Huntsville in Alabama, via Memphis. It was hot and humid with lush deciduous vegetation, in contrast to the firs of Canada. I gave a talk to the 17th Conference of U.S. Army Mathematicians.

Bridgid (Monday 7th June) prepares (F46) to begin a description of our great adventure, hoping "to get some of the writing done before dark, while the children hopefully settle to sleep".

School ended on Friday (90 °F) and Michael picked up the caravan from the garage on Saturday morning (hot and muggy). By noon we had collected sleeping bags, clothes, food and cooking utensils. Then we had lunch, loaded up, and we left at 2 p.m. We phoned ahead to a trailer site to book a place for the first night, to give us a target. We drove at 30 m.p.h. for the first hour to Dubuque on the Mississippi, at the Wisconsin-Illinois-Iowa boundary. Then we continued more boldly south-westwards to the I80, and we reached our park for the night at 7.30 p.m. Iowa gets undulating, ending in cliffs at the Missouri. The I80 is an almost straight road, and we could often see for four miles ahead.

Our first night was at a Safari Inn Park which had about 150 camp-sites, with a swimming pool (but no shade), hot showers and a shop and cafe. It was next to the main road, so there was lots of lorry-noise, and some noisy youths woke everyone at 3.30 a.m. The next day we left at 9.30 a.m., and drove 400 miles to Kearney, near the Platte River, and just beyond Grand Island, in Nebraska. Here we parked for the night. Nebraska gets flatter and flatter, like a fen but without dykes. There are few trees, and hardly any houses or farms. The only town we passed en route was Omaha on the Missouri, which is the Iowa-Nebraska border, but there were only overpasses and underpasses, with no slowing down.

Just before Kearney we encountered a threatening storm cloud, with lightning, a hailstorm, zero visibility and an unwelcome strong cloud structure. It was a potential tornado, as the car radio told us afterwards, and we stopped in a lay-by until it all passed over and there was blue sky again, but some people drove straight on through it all as we waited in the lay-by. We came to a small site with a pool after 400 miles. The I80 has a speed limit of 60 or 70 m.p.h., which was fine. It was a smooth road with little traffic. We had a picnic lunch in a rest area. The next day (7th June) we started again at 9.30 a.m. along the I80, which continues towards Denver, but we turned off to stop in scrubland by the Platte river near the Colorado border. There had been sandhills for miles, on a hot afternoon along a dead straight road. We could now see the mountains, high and vast, in front of us. The boys slept in the car when tired. We stopped at 5.30 p.m. at the next camp-site.

By early Tuesday we were ready for the next day, after 1000 miles so far, at a steady 70 m.p.h. on the I80. We had ice creams at petrol and lunch stops. We began to climb, at first 300 feet in 150 miles. Then we stopped at a cafe in Loveland (5000 feet) in Colorado, before climbing to Estes Park (7500 feet), through 25 miles of a gorge through which the Big Thompson River flows. The Rocky Mountain National Park begins two miles beyond the town of Estes Park. We had arrived.

Our first campsite was among trees. There were spaces for the camper trailer, the car, dustbins and a camp fire. There was a water tap and a comfort station. It was a chilly night and a clear blue morning. Snowy peaks were visible through the pine trees. We began to reap the benefits of our ice-box, and our cooker with three rings.

On Wednesday 9th June Michael spent the morning in hot sunshine watching humming birds feeding off golden pea vetch. Bridgid and the boys saw a coyote, and a beaver dam, and more birds. We were camped at 8000 feet, and we had a problem starting the car. The local Park Ranger told us to take the air filter off the engine, which solved the problem. The engine just had not been getting enough oxygen.

The next letter (F47) was written by Bridgid at 8.00 p.m. on Saturday 12th June in the Rocky Mountain National Park, and by Michael on the following Tuesday evening from Buckland Crossing, Wyoming. We had moved north out of Colorado, and Michael and John were watching a film at the Visitor Center, while Peter and Richard were asleep. Long's Peak (14000 feet) was visible from our trailer. The mornings are clear, the afternoons often bring a shower, and the evenings are clear again. The trailer has a heater for the cool evenings. Richard has had some mountain sickness, so Michael stayed with him while Bridgid took John and Peter nine miles to Bear Lake (9200 feet) in the next (snowy) valley. Richard recovered, so we drove up Trail Ridge Road (see photo) on Friday over the continental divide (12183 feet). The car behaved. It was way above the tree line, and there were 20 foot banks of snow. In the evening Michael, John and Richard went on a ranger-led walk to see some beavers.

John and Bridgid went horse riding for two hours. Richard became dopey with a temperature, and the Park Ranger found a doctor who gave us some penicillin for a throat culture. His tonsillitis was aggravated by the change in altitude, but he is improving.

By the evening of Tuesday 15th June Michael was writing from Buckboard Crossing, 30 miles south of Rock Springs in the south-west corner of Wyoming. We were camped in desert-like country next to Flaming Gorge Reservoir. There was little but sage-brush, rocks and dry creeks. Beyond distant mountains we could see the snow-covered peaks of the Colorado and Utah Rockies. The sage-brush is beautiful after a thunderstorm. Richard had recovered by Sunday. On Monday we went eastwards back down to Loveland, then north to Cheyenne in Wyoming, from which we decided to go west for 200 miles instead of north, through the desert drive to Laramie (where we camped for the night) and Rawlins to Rock Springs. The last 100 miles was the Red Desert with just sagebrush, and no cattle. Dirt roads led off sideways every 15 miles or so. There were gas stations every 30 or 40 miles, and we travelled at 60 m.p.h. the whole way. This was no place for anyone to break down. The height varied between 6500 feet and 8000 feet. Tomorrow we go north to the Teton National Park, and then to Yellowstone National Park.

By 17 June (F47) we were in Cody, Wyoming. After leaving the Rocky Mountain National Park we had driven up to Cheyenne and then west to Laramie where we camped. Hot showers and coin-operated laundry were welcome. Next we drove further west across hills and some very dry land. There was only sage brush, and then just bare earth, and an occasional oil well. After 120 miles we came to Rock Springs, and then turned southwards to Flaming Gorge National Recreation Area, where there is a huge lake created by a dammed stream. We camped here. It was quiet, but then a thunderstorm released a fresh and beautiful sagebrush scent. After a nice evening walk, we drove northwards the next day to the Grand Teton National Park. Only sagebrush at first, but then more fertile soil, and even trees (Farson) by the Oregon Trail. The snowcapped Wind River Range of mountains was on our right, and similar hills on our left. We had lunch at Pinedale, a village with a mountain stream running through a clump of pine trees, and then up through a canyon to Jackson. We passed brown rivers full of rushing melted snow. We stopped at a large camp-site called Colter Bay. The next day we went to Yellowstone National Park, and then out east to Cody. By then we

were tired. It had been 2000 miles since Madison. We got to the Old Faithful Geyser in Yellowstone just in time to see a good eruption (in company with hundreds of other people). Further along the road within Yellowstone we saw more geysers, and steamed trees. There were moose, and a bear sitting by the roadside. We stopped at a mud volcano. Then we left the Park via the Wapiti river valley to get to Cody.

Cody is a “real Wild West town”. Michael, John and Richard went to a Rodeo, and swam in a pool, while Bridgid put Peter to bed. The Rodeo was very exciting. We visited the Buffalo Bill Museum the next day. The trailer is a great success. The icebox in it keeps food fresh and “Michael has a huge steak for supper every night”. Richard is better again.

The next hop was a hot drive from Cody to Tensleep. There were no trees, just sagebrush, bare hills, no water, no farms, occasional oil wells. We ate hamburgers in an air-conditioned cafe in Tensleep. It was a colourful drive over the mountain passes, before we spent the night in Buffalo. The notice said “No gas for 68 miles”, and there were just two houses. We saw antelope and cattle near a creek, and oil wells at the Wyoming-South Dakota border near Newcastle. The oil was only 24 feet below the surface, and the well was hand-dug. In South Dakota there were pine-wooded hills and a winding English-type country road. We stopped for three nights at the Custer State Park. There was a large lake and pinewoods, and we paddled in the lake at 5000 feet. The site was full with 50 families, but after five days driving in the mountains it was nice to stop here for the three days. We aim to visit the Black Hills and the Badlands near Rapid City in South Dakota on Tuesday, and return the trailer by Friday.

Michael wrote (F49) to Ann from Buffalo (Wyoming) on the back of a facsimile copy of an advertisement for a Pony Express rider. He described our drive from Cody over the Bighorn Mountains (80°F), with lunch at Ten Sleep. We climbed from 5000 feet up Ten Sleep Creek and Canyon to the Powder River Pass at 9666 feet, where it was cool and pleasant with pine trees and snowbanks, and beautiful upland meadows carpeted with wild blue lupins. Then we went down again to the plain.

Yesterday was terrific. We saw the Grand Teton National Park, Yellowstone Park, the Old Faithful Geyser (with 3000 people) and three moose, and a black bear. Then it was the Shoshone National Forest, which was a relief after 50 miles of desert. We really enjoyed Wyoming.

By 27th June (F50) we had returned to Madison, with 82°F at 9.30 a.m. The previous Monday 21st June we came down out of the Black Hills of Dakota, to a lunchtime stop at Cactus Flat Campground, near the Badlands in western South Dakota. After lunch we took a dip in the pool, and after a thunderstorm at Adrian we did a two-hour tour of the Badlands. On Tuesday we did 300 miles across South Dakota to reach Minnesota.

It was all flat prairie thereafter, with increasing population and fertility, “absolutely nothing to stop for”. We had lunch at Chamberlain where the Missouri River crosses the I90. On Wednesday we left Adrian in S.W. Minnesota at 9.00 a.m., and covered 400 miles, arriving in Madison at 7.00 p.m. Lunch was in Albert Lea in Iowa, we passed by Austin and Rochester, and then it was 20 miles along the Mississippi from Winona to La Crosse. We were in Wisconsin again by 3.30. after a tea and gas stop, we did the last 120 miles in two hours.

All was OK in Madison. We were a bit saddle-sore, and spent three days unwinding. Thursday was for emptying and cleaning the trailer, and then we returned it.

We did a total of 3400 miles in 19 days. The car had only a jammed door-lock, in Yellowstone, which we had fixed on our return. We were fortunate. We passed people in the desert mending punctures and changing wheels, where there is nothing - no people, cattle or houses. We saw this sign between Buffalo and Gillette in Wyoming which said “No services for 68 miles”. We drove for a solid hour hoping nothing would go wrong.

Letters have arrived from England. John got his roasted frankfurters and marshmallows. Grandpa is 2.5 stone overweight Has he sorted out his pension? Jim has discovered “Albert and the Lion”. Richard was surprised to find that “Polly has a new brother Lawrence”.

Bunty will come next Tuesday, and Adrian Wiles is in Tennessee.

By 7th July (F51) we have had five days of over 90 °F and humid, so we went shopping (for their air-conditioning), and spent our afternoon reading in an air-conditioned bedroom. Bunty (aged 64) has come over for five weeks, and stayed with us for ten days, before a ten-day coach tour to the Rockies.

Bridgid has made a small scrapbook of postcards, etc. We are beginning to plan for departure on 23rd August with a two-day stopover in Iceland. John and Richard are enjoying pottery and sculpture classes.

The 4th July (Independence Day) celebrations were a neighbourhood affair. There were red, white and blue decorations on bikes and trikes, and a fete with sideshows and stagecoach rides (but drizzle). There was BBQ chicken, a rock group in the early evening, and then a firework display for thousands sitting on the grass. It cost about 800 dollars in an hour.

July 12th saw the annual Madison Art Show (400 artists). We took a picnic to Dodge State Park, where there is a lake, a sandy beach, and swimming at Cox Hollow. Then we went to Tower Hill State Park, stopping at sandbanks on the Wisconsin River en route. Our cricket astonished the locals. We travelled home via Mazomanie and Black Earth. There was a letter for Richard from Granny on our return. Richard writes to his Granny that “We are looking forward to coming home”.

By 7.30 a.m. on 23 July (F52) Richard and Bridgid are awake, and Bridgid writes a few lines. The boys sleep in late because bedtime is not before 9.30 p.m. after quite hot afternoons (over 90 °F). Outdoor games begin around 7.00 p.m. when it begins to cool down, and the house cools even later. John’s school finishes this week, but Richard goes on two weeks more.

Michael is beginning to pack 100lb of books and 100lb of papers.

The news from our Reading house agents (Heydemans) tells us that our Sudanese tenants have done no gardening because they have a “boy” to do it in the Sudan. The agents will have the grass cut and charge them for it. There is now an English family in the house for a month. Michael has lectured at North Western University (Evanston) and at Urbana (Illinois).

By 31st July (F53) Bridgid is cleaning up and getting ready to pack, e.g. Michael’s books and papers. She tells the story of our visit to Champaign-Urbana, where we were guests of R.T. (Dick) Shield (originally from Newcastle) and his American wife, who have been three months in a new house. It is part of an estate of about 50 houses round a lake, on which Dick keeps a canoe and a sailing boat. They gave a small party after Michael’s lecture (Peter went to bed late and woke early, so that was awkward).

Bunty returned from her ten-day coach trip, tired, but she enjoyed it.

Illinois is dull and flat. It seems full of field of corn and soya bean, ten feet high. We went via Rockford to Bloomington, and returned on the I94 Chicago by-pass. It was about 300 miles, and took five and a half hours.

Michael wrote (1st August) that “I have many things in my head that I would like to do and I shall not have the time in England”. I took a new visitor (Howell Peregrine from Bristol) to several

garages. I must sell my car.

The last letter (F54) from Bridgid is dated 17th August, and expresses thanks for a letter from Cromer. We have packed two trunks, 27 large padded bags of papers, 18 parcels of books (maximum weight 11 lbs each) and 18 other parcels. Andrew Wiles (age 18) is with us until Friday. We have sold the car for 700 dollars. We have been out to several dinners, and we have three more invitations for this week. The weather is cooling off.

We are due in to Gatwick from Iceland at 3.15 p.m. on Thursday 28th August, and we shall stay with Bunty for two days. Michael has visited the tax office twice to sort out details before we can leave.

12 Bridgid's Diary of our Camping Trip

The following comments accompany a collection of postcards and brochures which Bridgid assembled during our trip to the Rockies.

We chose an 8-sleeper wind-up trailer called a Starcraft.

Saturday June 5th. We covered 30 miles in the first hour. Having left at 2 p.m. I wondered when we would get to I80, but we made better progress as we got used to the trailer, and arrived at Oxford, Iowa at 7 p.m. The [Safari Inn] site was bare, but the pool delightful. A stop at Monticello for gas was made memorable by the milk shakes, delicious, from the ice-cream parlour.

Sunday June 6th was spent covering 400 miles on I80. Iowa was undulating, Nebraska flat. We won't forget the unusual cloud at Grand Island. After pausing in zero visibility, we found it had been a tornado funnel type cloud. I80 is straight and flat for over 800 miles. Omaha was the only place we went through.

We spent that night at Kearney, next to a wide corn field, then continued by the Platte River, along I80 nearly to Denver.

We kept going due West. At Loveland, near the foot of the mountains, we had a cool snack in the familiar King's Food Host, before driving 22 miles up Big Thomson Canyon to Estes Park and into the Rocky Mountain National Park. We camped in Moraine Park Campground for a week. (It is 1000 miles from Madison). We visited Bear Lake at 9200 feet above sea level.

We have colour postcards of Big Thompson Canyon, Bear Lake at 9200 feet, and the Trail Ridge Road. This road in the Park crosses the Continental Divide and climbs steadily to over 12000 feet. A postcard shows tundra and high snowbanks at 11000 feet. The air was thinner. The views from Trail Ridge Road were many, beautiful and vast - over 60 miles in parts. From the Many Parks Curve we saw flat valleys which seemed full of beaver streams. Forest Canyon Overlook was one vantage point. Higher still were switchbacks, but the gradients were easy after the English Lake District!

We had many views of Long's Peak (14256 feet), for example from Rock Cut on the west side of the Park. There were 20 foot snowbanks beside the road, which had only been ploughed clear two weeks before. The Visitor Centre at 12000 feet had a roof held on by heavy logs.

We had to take Richard to the doctor at the weekend. She was most considerate, cheerful and helpful, and we have her receipt for the 9 dollars which she charged. The thin air had aggravated his cold, but he was soon better.

After a week in the mountains we descended to Loveland again, but then travelled north to Cheyenne in Wyoming. Our intended site was hot and bleak, so we continued on to Laramie. We spent the night at a KOA site with laundry, hot showers and shop; then continued (cleaner!) west to Flaming Gorge. We camped at Buckboard Crossing. After a brief thundershower, the scent of the sagebrush was all-pervading and the light was very beautiful. It was a quiet place, 30 miles from the main road. Next day we travelled north to the Grand Tetons, a long drive to Colter Bay site.

We found the Grand Tetons and Yellowstone rather too full of people, so did our sight-seeing rapidly. We joined 3000 others to see the Old Faithfull erupt! The road to there from the Tetons was through a pine forest, with two feet of snow still lying, and the streams overflowing with melted snow.

The next part of our drive was much more interesting, with many geysers. Some of the trees and fields were whitened from the steam and gases. We kept to the southerly route through (another) Madison, Norris and Canyon, leaving by the East Exit. We stopped at a mud volcano, Dragon's Mouth, which made our footing on the Earth seem very precarious. We were delighted to see bison, brown bears, and moose, all at a safe distance.

Continuing out of Yellowstone, we drove down the beautiful, ever changing scenery of the Wapiti Valley. We saw the Apostles, and the Palisades, which are two sets of rock formations. With two children asleep on her, Mum was unable to take photos, to Dad's sorrow. We liked the change from pine to deciduous forest, and would have camped by the river, but we felt short of time and far from Madison. We finally camped in very different surroundings in Cody. En route we saw rock formations called The Apostles and The Palisades, and Heart mountain north of Cody.

The camp-site was at Buffalo Bill Village. There was a store full of knick-knacks, the top shelves given over to a museum of cowboy relics. There were also old stage coaches, a chuck wagon, and old shop fronts. Dad, John and Richard spent the evening at the Rodeo - very exciting. In the morning we visited the Museum and the Buffalo Bill Historical Center. The Museum was full of treasures, pictures and Indian clothes, tools, etc. There were also stage coaches and sculptures. We bought postcards showing an 1880 poster of Miss Annie Oakley, a Currier lithograph of Col. W.F. (Buffalo Bill) Cody, and paintings by famous artists of the time, such as Alfred Bierstadt (Wind River Wyoming), Charles M. Russell (Waiting for a Chinook) and Frederic Remington (The Buffalo Hunt).

After two hours in the fascinating Museum, we set off eastwards. We needed plenty of gas, as there was nothing for the first 70 miles, no fences, people, water, buildings; just rocks, sagebrush and the occasional oil well. We really appreciated the cooler air up Ten Sleep Canyon and over the pass. The fields were blue with sweet-scented wild blue lupins. We stopped at Buffalo and had the trailer erected just before a big thunderstorm surrounded us.

Near the border of Wyoming and South Dakota we stopped at a hand dug oil well, which was offering guided tours and the benefits of a souvenir shop, near Newcastle, Wyoming. We continued east to Custer State Park in the Black Hills. This area is crowded with tourist attractions. The roads are less wide than others we had been on; also they were hilly and bendy. We stayed in a park by Stockade Lake for two nights. We went to see Mount Rushmore and the milling throng. We also explored Big Thunder Gold Mine and mined some pieces of rock. We continued on to Cactus Flat Campground, by the Badlands. The pool provided essential relief from the heat until the storm cooled us. Three miles up the road there was a sod house such as Laura Ingalls Wilder might have lived in. In the evening we drove for nearly two hours around part of the Badlands. The colours and contours were beautiful in the evening light.

Next morning we continued eastwards to Adrian, a small community in Minnesota. The villagers had enterprisingly created a site near the new swimming pool. For the only time on our trip we felt very conspicuous. The children at the pool were very friendly. They were fascinated by our foreign accents, as they had never met English people before. We stopped for all snacks in air-conditioned



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Figure 82: Pony Express Poster

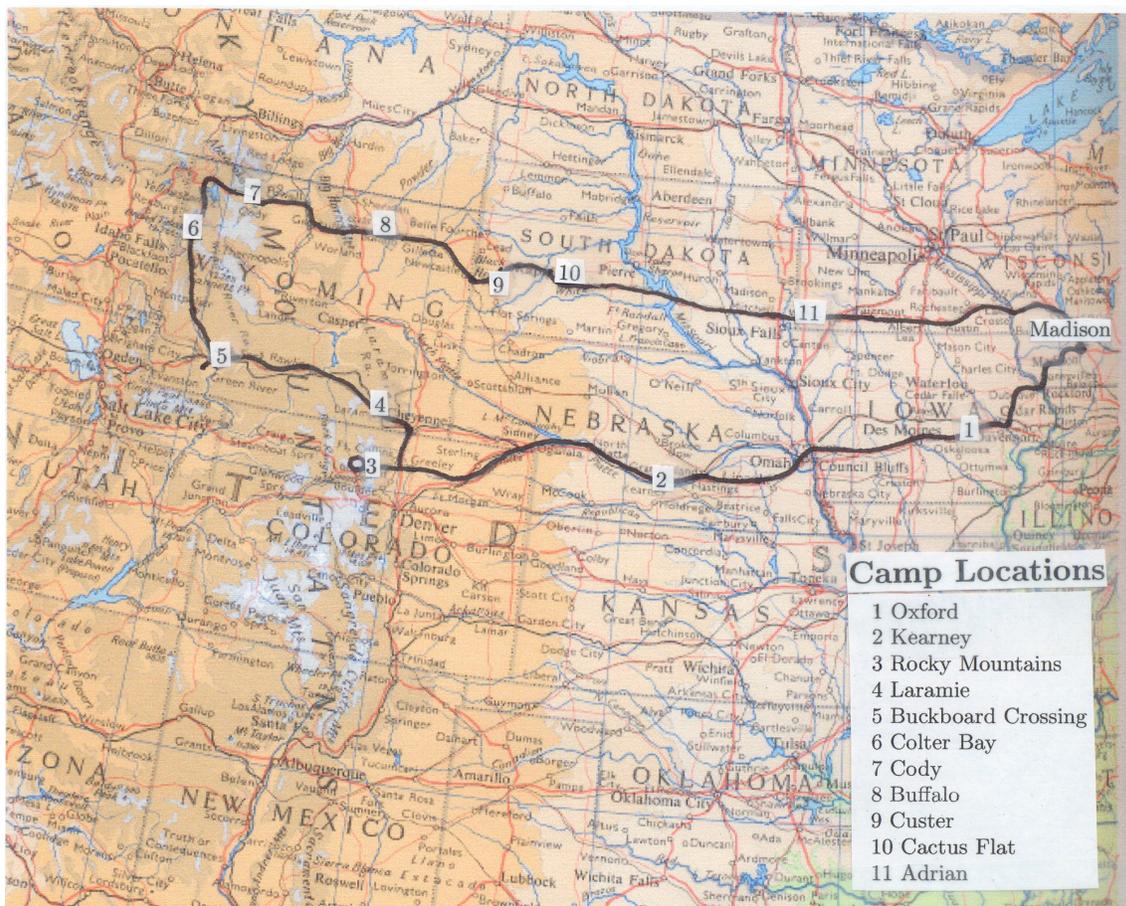


Figure 83: Camping route

cafes, including buffalo burgers at Chamberlain (Al's Oasis) by the Missouri.

We reached home the next day, having covered 800 miles in two days. Altogether we travelled 3400 miles in 19 days, using 284 (U.S.) gallons of gas, which cost 117 dollars!

13 Summary of Camping Tour: June 1971

In the following summary the June dates are on the left, and the eleven camp locations where we stayed are numbered within the list, to identify their location on the accompanying map.

Sat 5. Wisconsin, Iowa: Left Madison, via Dubuque to I80, Safari Inn Park (1) at Oxford.

Sun 6. Nebraska: 400 miles to Kearney (2), just beyond Grand Island.

Mon 7. I80, Platte River to Colorado, Loveland, Estes Park, Rocky Mountain National Park (3).

Tue 8 to Sun 13. RMNP: Bear Lake, Trail Ridge Road, riding.

Mon 14. Wyoming: Cheyenne, KOA Laramie (4).

Tue 15. Rawlins, Rock Springs, Buckboard Crossing (5), Flaming Gorge Reservoir.

Wed 16: Teton NP, Pinedale, Jackson, Colter Bay (6), Yellowstone NP.

Thu 17: Cody (7).

Fri 18: Tensleep, Buffalo (8).

Sat 19 to Sun 20: S. Dakota: Custer SP at Stockade Lake (9).

Mon 21: Cactus Flat (10), Badlands.

Tue 22: Black Hills, Rapid City SD, Chamberlain, Adrian Minnesota (11).

Wed 23: Albert Lea Iowa, Austin, Rochester, Winona, La Crosse, Madison.

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michael@sewells.org