

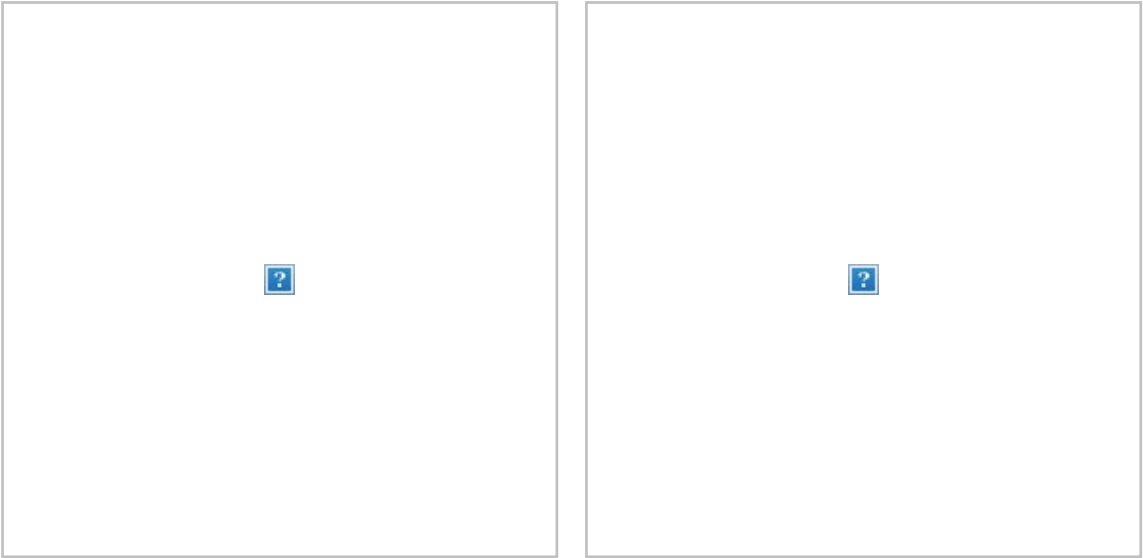
1971

1971:

Aug. 17 to Sep. 14 Trip to Ireland

Dec. 30 - Jan. 2 N. Year trip to Bangor + S.F. Area

06/16/73 DE 145 DET ATL
06/22/73 DE 1479 ATL LAX
11/28/77 DE 1918 LAX ATL
??/??/77 DE ATL LAX
07/25/76 LAX HSV
plus ret. HSV LAX
08/18/76 LAX TYS
plus ret. TYS LAX



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*Last updated 7/30/99.
Christopher E. Brennen*

TRAVELS NOW AND THEN

© Christopher Earls Brennen

HUNTSVILLE 1971

JETPLEX—This is more than just an airport; it is a unique combination of air, land, rail and river services linking travelers, supplies, producers and consumers all over America in a multi-modal transportation network to support tomorrow's industrial, commercial and business activities today. Over 8,000 acres—1,100 on the airport—can be served by this multi-modal transportation network.

JETPLEX is the rail service provided by Southern Railway that industry needs to supply its production and distribution requirements. Spur tracks can be extended to serve the entire area, including sites on the airport.

JETPLEX is the land transportation service that is available from the fifteen common carriers in the region. With I-65 only six miles west and I-565 approved for connecting I-65 with the airport and the downtown business district of Huntsville, any industrial or business site on or surrounding the airport has immediate access to the Interstate and highway system.

JETPLEX is river transportation from the Tennessee River, with its nine foot clear channel that connects **JETPLEX** property with the inland water system from the Great Lakes to the Gulf of Mexico.

JETPLEX is air transportation from a Regional Airport. Scheduled carrier service by Eastern, Southern and United provides nonstop or single plane service to the major cities of the nation. Two transcontinental routes intersect here and afford direct air service to the West Coast, Eastern Seaboard and Florida. General and executive aviation are serviced by Huntsville Aviation's modern fixed base operation.

JETPLEX is the 1,100 acres of industrial and commercial property on the airport that directly fronts the runways, an existing road system and rail service, river transportation just 3½ miles to the South.

JETPLEX is the airport terminal, appropriately named Skycenter, where under one roof are airline customer services, a 152 room hotel, restaurants, gourmet dining, concessions, car rentals, conference and banquet rooms, a bank and post office. Three hundred feet away are a cabana/pool and an 18 hole golf course.

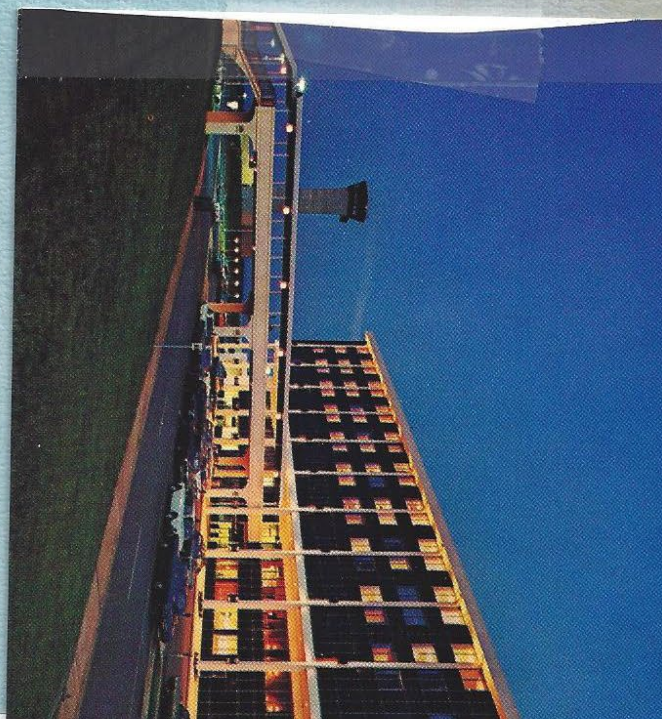
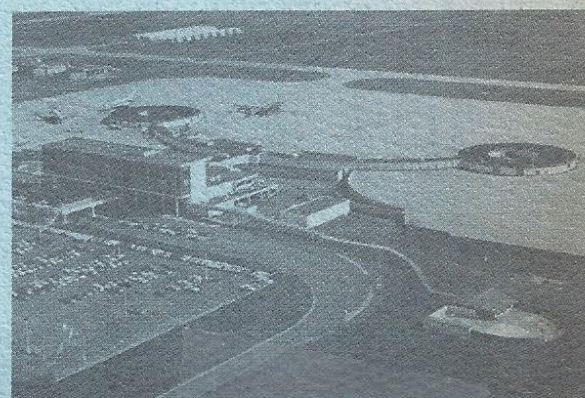
JETPLEX means labor availability—within twenty-five miles are nearly 400,000 people. With the region's educational institutions—universities, junior colleges, vocational and grade schools—the skills of any trade or profession can be provided or enhanced.

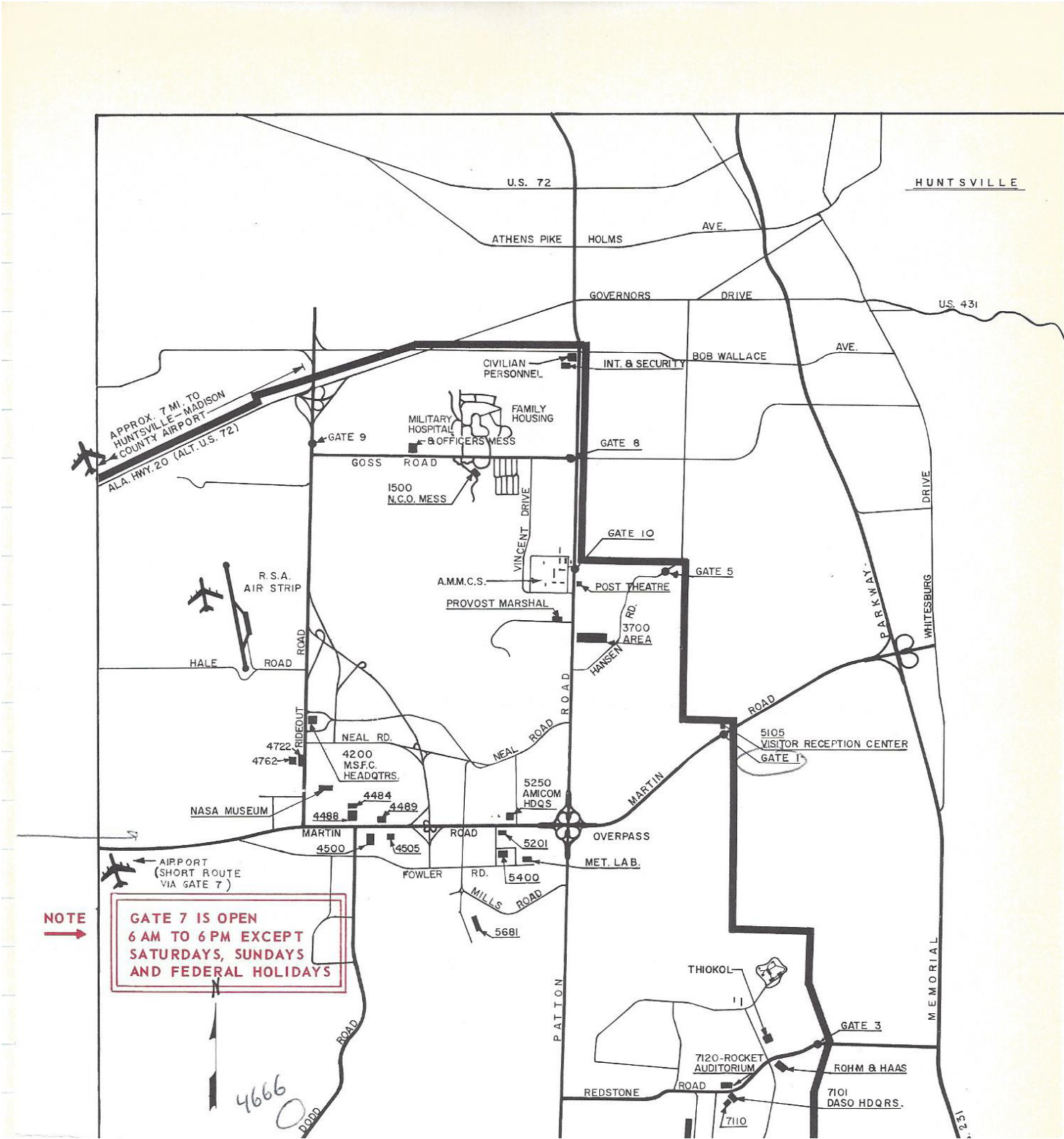
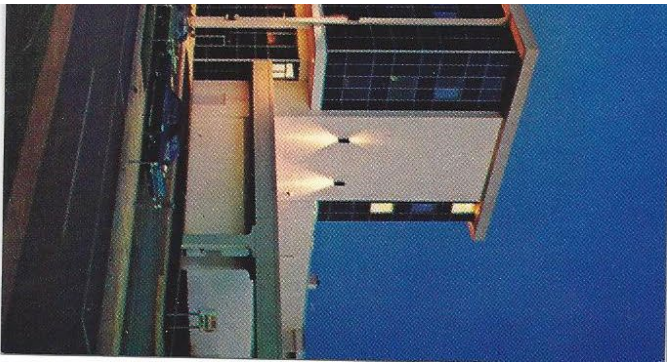
JETPLEX is centrally located to the Southeast and the forty million people that live south of the Potomac and Ohio Rivers and east of the Mississippi. Why don't you locate your facility in **JETPLEX** Country? Contact:

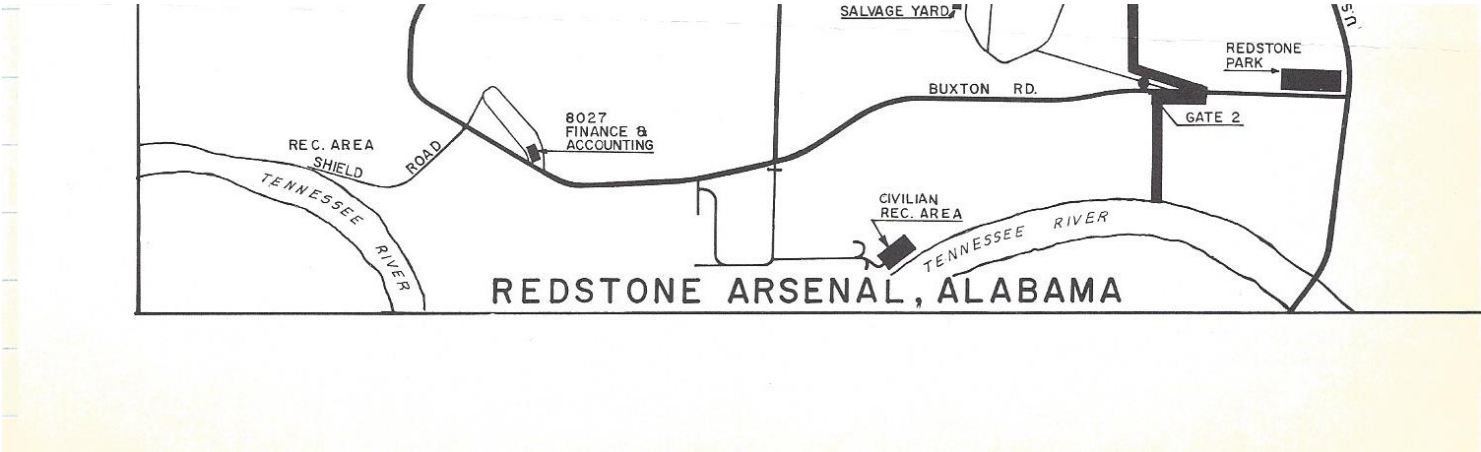
J. E. MITCHELL JR. EXECUTIVE DIRECTOR
Huntsville-Madison County Airport Authority
Huntsville, Ala. (205) 772-9395

JETPLEX

HUNTSVILLE, ALABAMA









FROM SATURNS TO SCIENCE -- THE CHANGING SCENE AT MSFC

This folder gives you a thumbnail sketch of the Marshall Space Flight Center, NASA's largest research, development, and management organization.

At Marshall you will find huge test stands of steel and concrete where the giant Saturn's first stages were static fired;

Lightning-like computers for plotting trajectories, problem solving, and handling millions of bits of data from space;

Laboratories filled with specialized testing equipment;

Lunar Roving Vehicles for riding on the moon;

A huge tank filled with water where astronauts in pressurized space suits can simulate the zero gravity of space;

Work on Skylab, the Space Shuttle, and other programs of the future for exploring space and adapting space technology to Earthly uses;

Studies of large space telescopes which may be able to see the furthestmost expanses of the universe.

The Marshall Center is in transition, completing the Saturn Program and engaging in a wide variety of exciting space science and applications projects.

The concrete and steel structures, the swift computers, and the laboratories with sensitive equipment here are valued at 400 million dollars. Far more valuable, however, are the people -- the scientists, engineers, technicians, and managers with space-related skills and experience -- who are devoting their talents toward reaching the nation's goals in space.

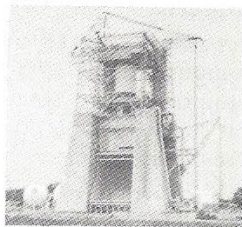
You must go within the laboratories at the Marshall Center to get a close-up look at its real nature. Tirelessly repeated tests, complicated experiments, and drawing board designs seldom make today's headlines, but they help shape the space activities of tomorrow.

Here men and women are busily at work on research, advanced concepts, and long-range studies for space systems which are years ahead of today's hardware.



Practically all of the scientific disciplines are represented at the Marshall Center: mathematicians, physicists, chemists, biologists, and dozens of different types of engineers. All are making a common assault on the problems of space travel. And they are working on the frontiers of knowledge in their chosen professions.

The story of the Marshall Center is not told in terms of steel, stone, or statistics — but in the efforts of its people. Their knowledge, skills, experience, and teamwork are a vital asset in the nation's space program.



HERITAGE AND HISTORY

The Marshall Center is located on 1800 acres in the midst of the U.S. Army's Redstone Arsenal at Huntsville, sprawled among the lush green vegetation and rich red clay of the Tennessee Valley, with low Appalachian foothills on the horizon. The meandering Tennessee River, which forms the southern border of the Arsenal, permitted barge transportation of Saturn stages fabricated and tested here, which were too large for conventional highway, rail, or air movement.

The Center was formed on July 1, 1960, by the transfer of buildings and personnel comprising part of the Army Ballistic Missile Agency from the U.S. Army to the National Aeronautics and Space Administration. It was named for the famous soldier and statesman, General of the Army George C. Marshall, and was officially dedicated by President Dwight D. Eisenhower on September 8, 1960, with Mrs. Marshall attending the ceremony.

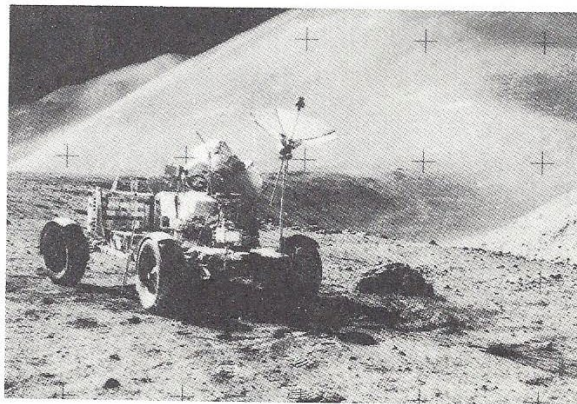
Marshall now has about 5,500 civil service employees and several hundred contractor employees in support roles at its Huntsville location. Other Center employees are located at contractor plants across the nation and at two government-owned, contractor-operated sites obtained to help carry out the goal called for on May 25, 1961, by President John F. Kennedy, for sending men to the moon before the end of the decade of Sixties.

The Michoud Assembly Facility, a 900-acre complex located in New Orleans, was obtained for the manufacture of Saturn stages. The Mississippi Test Facility, located 40 miles away mainly in Hancock County, Mississippi, provided rocket-testing stands and other test and support facilities for acceptance testing of rocket stages and engines.

The people who make the Marshall Center hum can carry a space project forward from the time that it is a faint gleam in someone's eye until it is a bright twinkle in the heavens, transmitting to earth valuable data on its observations.

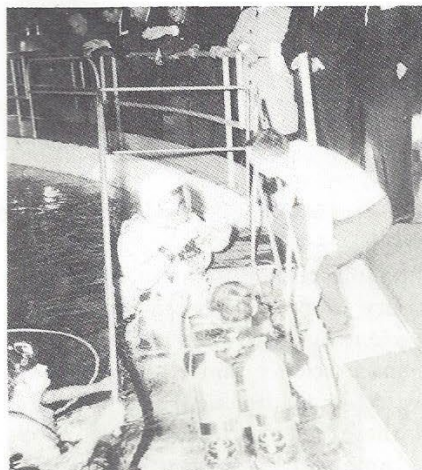
Many of these men and women were early pioneers in rocketry and space. They had a part in many historic firsts for the United States while working at Huntsville, first for the U.S. Army, coming to Redstone Arsenal in 1950, and since 1960 employed by NASA at the same location.

These firsts included the first man-made object recovered intact after a flight through space, the nose cone of a ballistic missile; the first primates, Monkeys Able and Baker, recovered from the Atlantic after a journey into space in the nose cone of a Jupiter missile; the first U.S. satellite, Explorer I, launched January 31, 1958, by a Jupiter C missile developed here; the first American astronaut in space, Alan Shepard, who rode a Mercury spacecraft on a sub-orbital flight over the Atlantic Ocean after being launched May 5, 1961, by a modified Redstone missile, developed here; and the Saturn V launch vehicle, provided by the Marshall Center, made possible the first landing of men on the moon in Project Apollo on July 20, 1969, and later permitted scientific exploration of the moon by astronauts using a Lunar Roving Vehicle.



CHARACTER AND FUTURE

The Marshall Center is one of NASA's nine principal field installations. Each NASA Center has a character or personality of its own. Each one has a unique set of skills and talents, which are used to perform various missions assigned by NASA Headquarters to reach the broad national goals in space.



Neutral Buoyancy Tank

In the past, the Marshall Center has been identified most often as NASA's launch vehicle development center. While this label accurately described part of the Center's activities, it never did tell the whole story. It is true that the Redstone, Jupiter, and Saturn rockets were spawned here. But the Marshall Center, like the moon on which much public attention has been focused in recent years, has always had another side, which is just now coming into view. As Project Apollo draws to a close with the December 6 launch of Apollo 17, these other projects which have been in incubation are coming into view.

No longer described by a single predominant launch vehicle project, the Marshall Center has become a multi-project management and engineering establishment, with a great deal more emphasis on scientific activity. This is the Marshall Center's new image.

Now, what are some of the programs reflecting the new face of Marshall?

After Apollo will come Skylab, this nation's first manned laboratory in space, which will be launched in the spring of 1973.

In Skylab three different crews of three astronauts each will spend up to 56 days in earth orbit, performing some 60 experiments in the areas of biomedical research, solar astronomy, and observation of the earth's natural resources. The Marshall Center will furnish four Saturn launch vehicles for Skylab, most of the other hardware, and some of the experiments. Many of Skylab's 60 experiments are designed to apply space knowledge more directly to public needs.

Another project, emphasizing science, is the High Energy Astronomy Observatory. HEAO will be the world's largest astronomical observatory to be launched and operated in space. It will study the high energy X-rays, gamma rays, and cosmic rays from galactic and extra-galactic sources. These are the most energetic forms of energy known to man.

Still another scientific project is the Large Space Telescope. More than 40 feet in length and weighing more than 10 tons, this telescope will be able to see galaxies 100 times fainter than those seen by the most powerful ground-based optical telescope. Peering 12 billion light years into the cosmos, this telescope will take us right to the edge of the accessible universe.



The Manned Spacecraft Center at Houston is the lead NASA center in development of the space shuttle, but the Marshall Center has a significant role in the program. Relying on our experience in launch vehicle development, we will provide the engines, external drop tank, solid rocket motors, and some of the payloads for the shuttle. The shuttle, designed to take both men and payloads into earth orbit, will replace virtually the entire stable of NASA launch vehicles.

USING SPACE TECHNOLOGY TO ENRICH LIFE ON EARTH

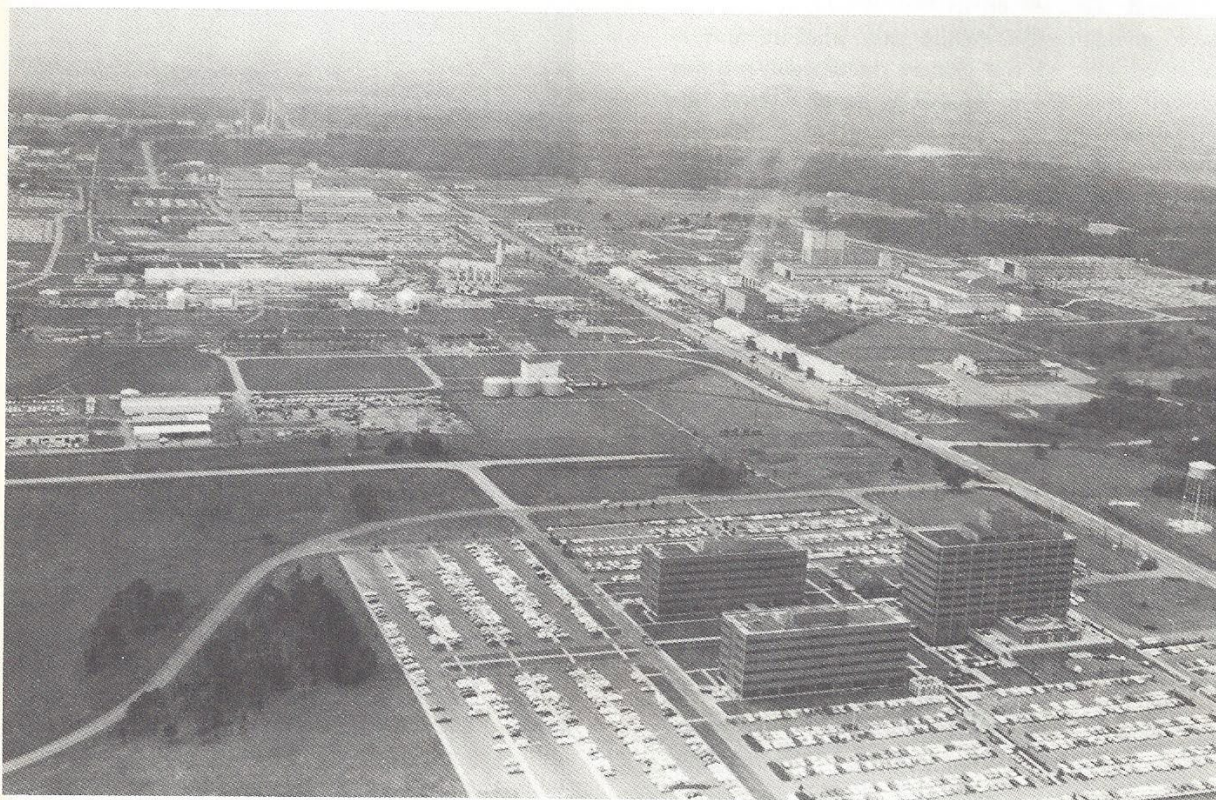
The space program benefits mankind in many ways: new scientific knowledge; advanced technology, including new products, improved manufacturing processes and techniques which mean better value for the consumer; improved weather forecasting and better global communications through satellites; advances in medicine; challenges to education, and others. Moreover, it has demonstrated improved management systems which can be applied to mobilize vast resources of people and materials in other new programs of government or industry.

The application of space science and technology to improve life on earth is coming strongly to the forefront, following the initial phase of exploration and discovery in space. To hasten these applications, NASA Headquarters is designating lead centers in such areas as earth observations, communications, environmental sciences, and meteorology. The Marshall Center may be given the lead center role in the area of communications for managing the NASA-wide effort in communications systems using satellites.



Knowledge from Skylab will be applied directly to public needs.

In summary, the Marshall Center today has a wide variety of projects, both for the continuation of scientific discovery, and for the application of space science and technology for useful purposes. As its management and technical direction of these science-oriented and applications projects come to the forefront, the new image of the Marshall Center will become even more distinctive.



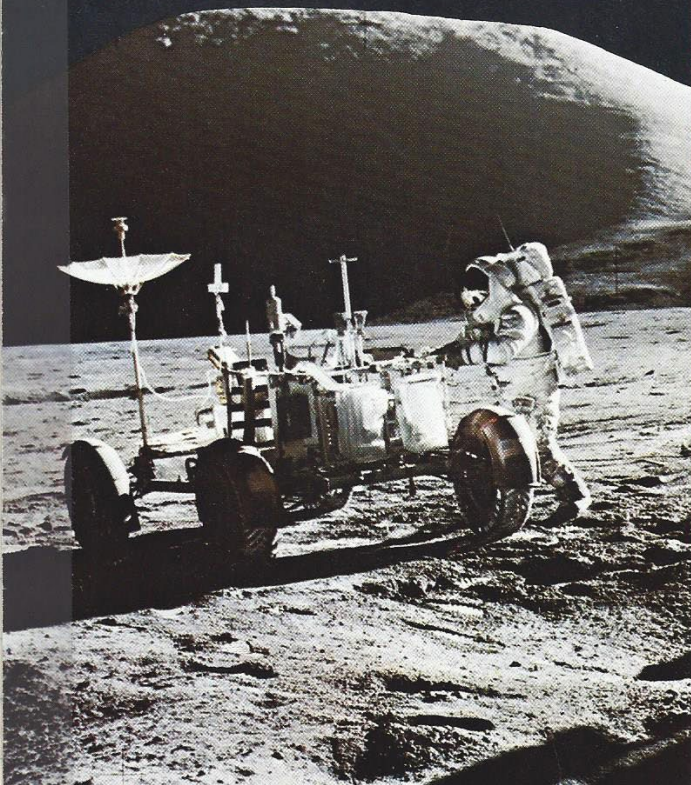
SPACE & ROCKET CENTER FEATURES

NASA TOURS



SEE THE
**MARSHALL
SPACE FLIGHT
CENTER**
HUNTSVILLE, ALA.

TOURS DEPART FROM
VISITOR INFORMATION CENTER



FANTASTIC...



Bring Your Camera!



SPECTACULAR...



ALABAMA SPACE & ROCKET CENTER



WELCOME TO

EARTH'S LARGEST SPACE EXHIBIT

The Alabama Space and Rocket Center, Earth's largest space exhibit, is "dedicated by the citizens of Alabama to those Americans who have made it possible for man to walk on the moon and to explore the universe; and to the youth of America who will use the technology of space for the benefit of mankind."

Far more than a museum, the Alabama Space and Rocket Center was developed to involve the people of America in the exciting technological revolution of our age. A non-profit educational organization, the Center is dedicated to the advancement and understanding of space exploration, discovery, and rocket development. NASA's Marshall Space Flight Center and the U.S. Army Missile Command are represented jointly with the aerospace and missile industry at this unique space age exhibit. The Center is a self-sustaining facility owned and operated by the State of Alabama. It was officially dedicated on March 17, 1970, and since that time has attracted thousands of visitors from throughout the world.

The architecture of the building sets the mood for your visit to the Center. Designed to resemble a rocket blockhouse, the massive all-concrete building contains 7,000 square yards of concrete. Wall sections of the building have been sculptured, chipped and sandblasted to provide the concrete structure with different textural appearances.

The architecture sets the mood, but it is the content of the Center that is unique, one-of-a-kind and the "finest exhibit of its kind in the world" as proclaimed by space expert Wernher von Braun.

The Space and Rocket Center is as far removed from the "don't touch" style museum of tradition as its centerpiece, the massive Apollo Saturn V moon rocket

(all 363 feet of it), is from the Wrights' first airplane. The Center's emphasis is on experience and participation. You can see, handle, and operate—and learn by doing—much of what the Center seeks to tell. The Center LETS YOU BE THE ASTRONAUT as you experience the sights, sounds and sensations of space travel.

This handout is your suggested tour guide. It contains a brief description of the exhibits with Areas 1-13 indicated and a suggested route to follow. It is suggested that you follow the numbers as you tour the interior and exterior exhibit areas. If you have questions about the exhibits, please direct them to the uniformed personnel on duty throughout the Center. They are available to assist you in operating the exhibits and to answer any of your questions pertaining to the exhibits or visitor services.

AREA 1

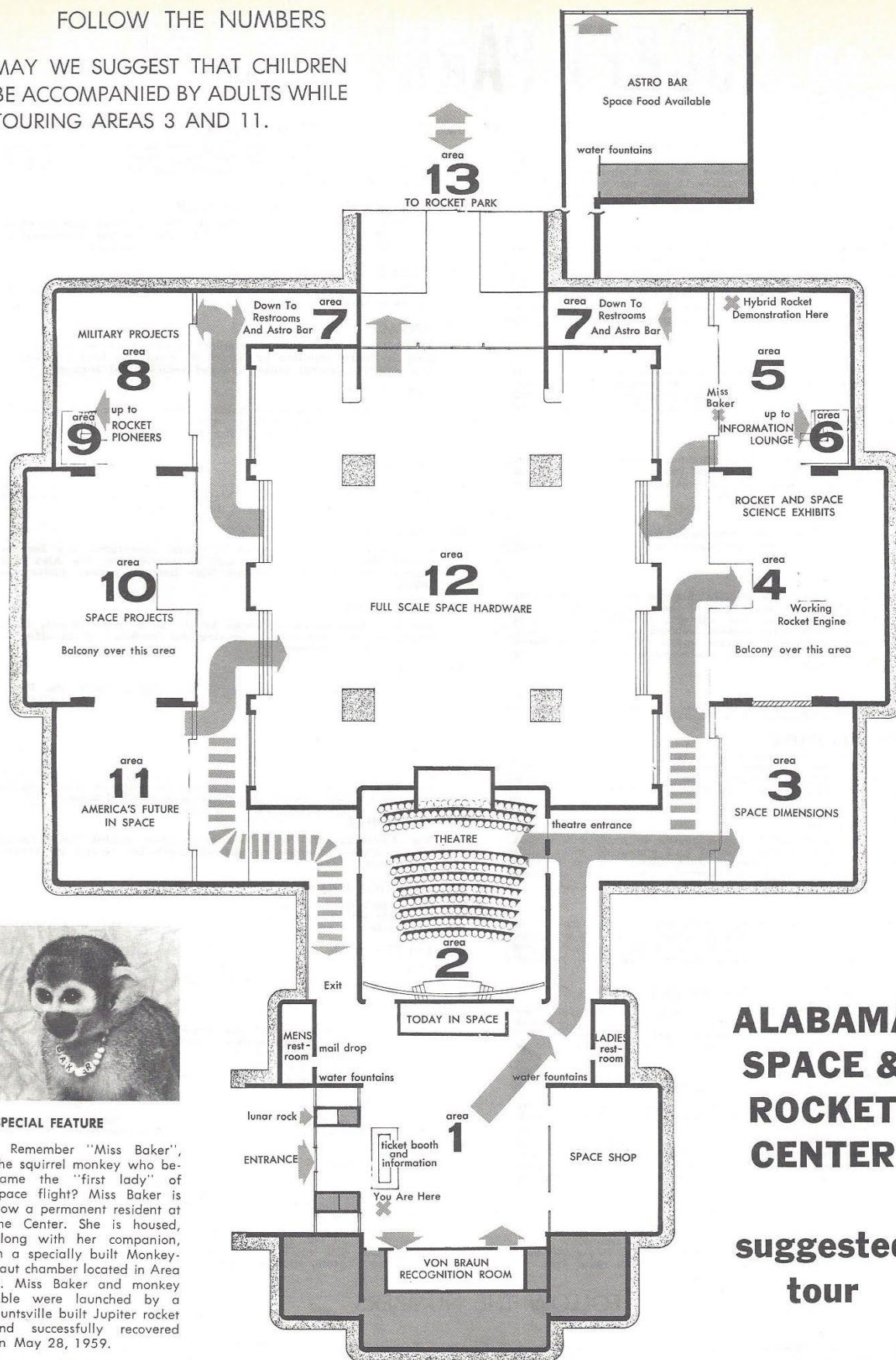
In the lobby, you will see the Today In Space exhibit containing the Spacecraft Tracking Station which displays live transmissions from weather satellites. Astronaut training and other manned space flight activities are transmitted from NASA Centers to the Space and Rocket Center. The Wernher von Braun Recognition Room is also located in the lobby. The room contains some of the awards, honorary degrees and other honors bestowed on the world's renown rocket expert.

AREA 2

The theater is the next stop where you will see the Center's feature film "Freedom To Explore." Using stereo sound, multi-image projection techniques and spectacular wide screen display, the 11-minute film traces man's development from the stone age to the space

PLAN AT LEAST TWO HOURS TO TOUR—CAMERAS WELCOME

Remember "Miss Baker", the squirrel monkey who became the "first lady" of a space flight? Miss Baker is now a permanent resident at the Center. She is housed, along with her companion, in a specially built Monkey-naut chamber located in Area 5. Miss Baker and monkey Able were launched by a Huntsville built Jupiter rocket and successfully recovered on May 28, 1959.



area 13 ROCKET PARK

USE THIS AS YOUR GUIDE
WHILE TOURING THE PARK

1. SATURN I

Saturn I was the first large space vehicle developed solely for space exploration. It was designed and developed at the Marshall Space Flight Center in Huntsville, Alabama. Saturn I operates at a top speed of 17,000 m.p.h. and can launch 11 tons into orbit. Saturn I launched the first unmanned Apollo spacecraft and three Pegasus satellites for meteoroid detection in space.

2. V-I BUZZ BOMB

This is the German cruise-type missile called the "Buzz Bomb" because of the unusual sound made by its engine. It is powered by a aero-pulse engine which burns any gasoline-type fuel and produces 900 pounds of thrust. Approximately 20,000 V-I's were launched against England and Belgium during 1944-1945. Over 1200 U. S. built copies, called the JB-2, were tested by the Army and Navy. This missile is exhibited through the courtesy of the Air Force Museum, Dayton, Ohio.

3. V-2

The V-2 proved that the basic theories of rocketry were correct. It was first launched on October 3, 1942, at Peenemunde, Germany, and broke all records for height, weight, speed and range. The V-2 was brought to the United States in 1945 and inaugurated the United States missile program.

4. JUPITER

In 1959, the Jupiter launched two primates named Able and Baker into space. This experiment proved that living creatures could pass through lift-off and re-entry and return safely to earth. The Jupiter generates 150,000 pounds of thrust.

5. JUNO II

Juno II was a modified Jupiter with upper stage added for launching space probes. The pioneer and explorer satellites were launched by Juno II.

6. REDSTONE

This rocket is known as "old reliable" because of the many diverse missions it fulfilled in the early days of the space age. There were three versions of Redstone. The military, satellite and manned versions. This is the military version designed to transport nuclear or conventional warheads at ranges up to 200 miles. Its power plant burns liquid oxygen and an alcohol-water mixture producing 75,000 pounds of thrust.

7. JUPITER C

The U. S. Army's version of Redstone, Jupiter C, launched the first U. S. satellite—Explorer I on January 31, 1958.

8. MERCURY-REDSTONE

The third version of Redstone was the first of a series of rockets used in the U. S. manned space flights. In May, 1961, a Mercury/Redstone rocket launched Astronaut Alan B. Shepard on a sub-orbital flight aboard Freedom 7, the first U. S. astronaut to ride a rocket.

9. MERCURY ATLAS

The Atlas space launch vehicle was originally designed as a weapon and later modified to launch manned and unmanned space hardware in 1962. The Atlas launched John Glenn into earth orbit aboard the Mercury Friendship 7 spacecraft. The Ranger, Surveyor, Lunar Orbiter and Mariner spacecrafts were launched by Atlas.

10. TITAN

The U. S. Air Force Titan rocket family was developed as part of this nation's defense system. Titan II however was used by NASA to launch the two-man Gemini spacecraft on long duration flights (14 days), rendezvous and docking missions and "walk-in-space" experiments.

11. APOLLO SATURN V MOON ROCKET

First Stage—The Apollo Saturn V was designed to transport man to other planets and lift tons of cargo into space. It was the launch vehicle for the moon landing. This first stage is powered by five liquid fuel engines that consume 5,000 gallons of fuel per second producing 160 million horsepower.

Second Stage—The second stage powers the spacecraft to an altitude of 117 miles above the earth at a speed of 15,300 m.p.h.

Third Stage—The third stage increases the spacecraft orbital speed to 17,500 m.p.h. After one orbit it re-ignites to push the spacecraft away from earth at a speed of 25,000 m.p.h. on a path to the moon. Instrument Unit—The instrument unit serves as the central brain of the total vehicle. This unit is packed with computers and electronic controls designed to maintain a path of flight that will place the astronauts at the required point in space (not shown here—on exhibit in building).

Apollo Spacecraft—The 95,000 lb. Apollo consists of the Lunar Module, Service Module, Command Module and Launch Escape System. The Lunar Module is stored, with its legs folded, inside a protective covering during the powered flight. The astronauts are in the Command Module for most of the flight, and this is the only part of the Apollo/Saturn vehicle that makes a complete round trip.

12. SIMULATED MOON SURFACE

"Here men from the planet Earth first set foot upon the moon July 20, 1969, A.D." This simulated moon crater features the Apollo Lunar Module and other equipment used by the astronauts to explore the moon's surface.

13. X-24 ROCKET PLANE MOCK-UP

The X-24 is one of the latest rocket planes to have been tested by the U. S. Air Force and NASA. The plane is the forerunner of Space Shuttle and has contributed to its development.

14. LANCE

Lance is a surface to surface ballistic missile which is being designed to provide greater fire support to Army divisions.

15. ENTAC

ENTAC is a surface-to-surface guided missile of French manufacture used in limited numbers by the U. S. Army. No longer in use, it was effective against tanks, armored vehicles and bunkers.

16. SERGEANT

Sergeant is a Field Artillery Ballistic Missile System that is reliable, rugged, accurate and mobile. It utilizes an inertial guidance system and solid propellant motor, giving it immunity to known electronic countermeasures.

17. HERCULES

The Nike Hercules is the United States' primary high altitude air defense weapon in operational status. The weapon has successfully killed every winged target ever flown against it.

18. NIKE AJAX

The Nike Ajax was this country's first operational Air Defense Guided Missile System. No longer in service use, the Ajax was replaced by the more advanced Nike Hercules system during the 1960's.

19. NIKE ZEUS

The Nike Zeus missile, developed by the U. S. Army Missile Command, played a key role in proving the feasibility of an effective ballistic missile defense.

20. HAWK

Hawk can search out and destroy attacking aircraft. The Hawk Air Defense System is transportable and capable of maintaining a high rate of fire.

21. HERMES

Hermes began in 1945 as an Army project covering a general program of research and development into the various phases of all guided missile technology leading to long range surface to surface and high altitude air defense missiles. The Hermes was designed to carry a heavy warhead to a range of 90 nautical miles.

22. CORPORAL

The Army Corporal is a surface-to-surface guided liquid fueled missile capable of engaging tactical targets far beyond the ranges of artillery.

23. HONEST JOHN

The Army's Honest John is a simple, free-flight rocket. It is a highly mobile self-propelled launcher and retains the accuracy of standard artillery weapons.

24. LITTLEJOHN

Littlejohn is one of the Army's most advanced free-flight rocket systems. It is highly mobile and packs the explosive power of heavy artillery.

25. LACROSSE

Lacrosse represents one of the Army's first attempts to obtain extreme accuracy with a surface-to-surface guided missile. Launched on a ballistic trajectory from a rear area, it could be picked up in flight by a forward observer and then steered directly to its target with radioed control commands.

26. PERSHING

Pershing is a two-stage, solid propellant ballistic missile with selective range capability. It carries a nuclear warhead to a range of 400 miles.

27. HOUND DOG

The U. S. Air Force Hound Dog is a supersonic, jet-propelled, air-surface standoff strategic missile. It is carried in pairs under the wings of B-52 bombers and has a range of 500 miles. The missile carries its own unjammable guidance system effective at high or low altitudes. A B-52 pilot can use the Hound Dog's engines for added power on take off, or in the air, and refuel them later for target runs. The missile is exhibited through the courtesy of the Air Force Museum, Dayton, Ohio.

FOLLOW THE NUMBERS

For Information Write To Alabama Space and Rocket Center, Tranquility Base, Huntsville, Alabama 35807



SATURN V

NASA's largest launch vehicle is used for sending American astronauts to the Moon in Project Apollo and for placing the Skylab into Earth orbit.

The Marshall Space Flight Center and its contractors are providing a total of 15 launch vehicles in the Saturn V program. A review of the program as it draws to a close reflects several historic achievements.

The first Saturn V was launched in an unmanned Earth orbital flight on November 9, 1967, with all three stages performing perfectly. Only one more research and development flight test was made.

Then on its third launch the huge Saturn V was manned. It sent astronauts Frank Borman, James A. Lovell, Jr., and William A. Anders on a voyage highlighted by mankind's first orbits of the Moon, on Christmas Eve, 1968.

The sixth Saturn V, launched on July 16, 1969, resulted in the first manned lunar landing. Astronauts Neil A. Armstrong and Edwin E. Aldrin, Jr., made mankind's first footprints on the Moon on July 20, 1969.

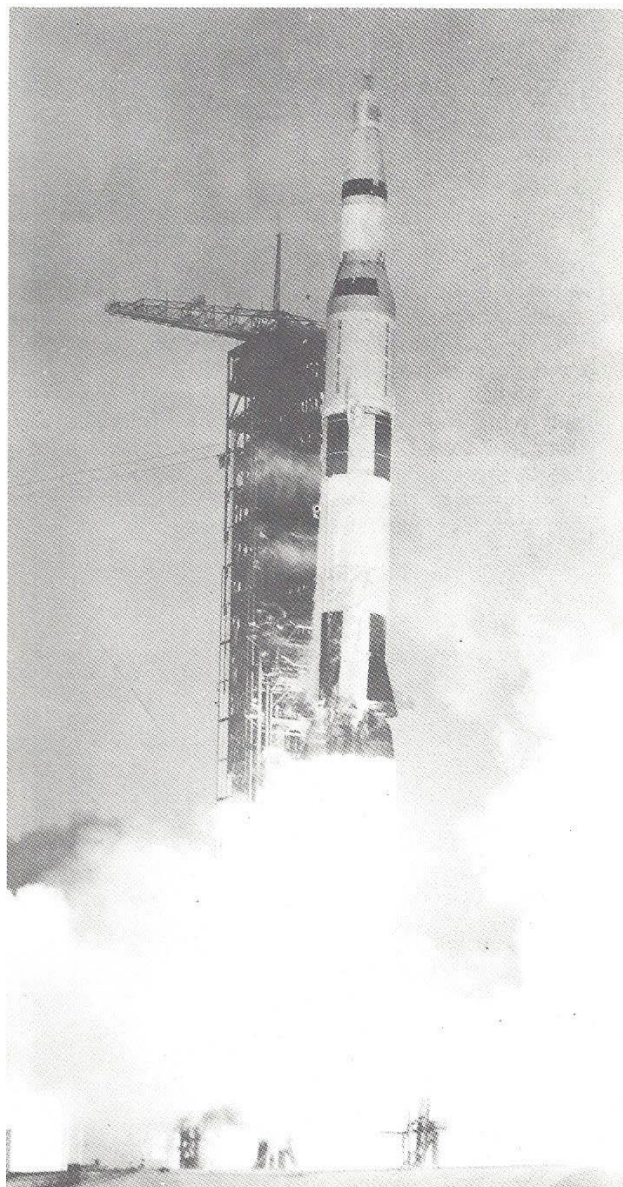
Other flights to the Moon have followed, with the last manned lunar mission in Project Apollo scheduled to begin with the night launch of Apollo 17 on December 6, 1972.

The next job for the Saturn V will be to place the Skylab workshop into Earth orbit in 1973. The workshop is made from a third stage of the Saturn V, and only the first two stages will be used in the launch.

The Saturn V was developed as a new general purpose launch vehicle in the middle range of several configurations under consideration in 1962. It can perform earth orbital missions through the use of the first two stages, while all three stages are used for lunar and planetary expeditions. The first stage is powered by five F-1 engines, which burn kerosene and liquid oxygen to produce more than 7.5 million pounds of thrust. The upper stage engines burn liquid hydrogen and liquid oxygen.

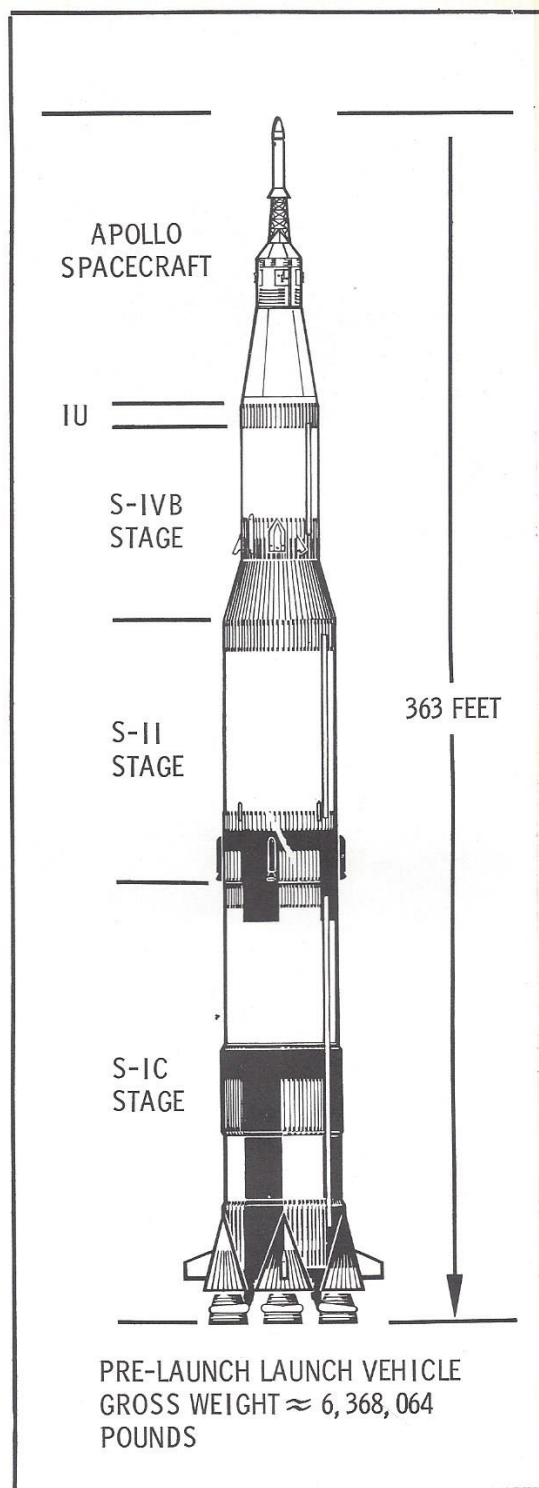
A large network of production, assembly, testing, and launch facilities was prepared for production of the Saturn V. The stages are assembled and checked out in a huge Vehicle Assembly Building, then transported in an upright position to the launch site, more than three miles away.

The Saturn V, including the Apollo spacecraft, is 363 feet tall. Fully loaded, the vehicle weighs some 6.4 million pounds.



Saturn V Flight Record

- Apollo 4 mission -- Nov. 9, 1967. First Saturn V flight. Unmanned, Earth orbital. The spacecraft's command module reentry tested.
- Apollo 6 -- Apr. 4, 1968. Second unmanned Earth orbital flight. Despite propulsion difficulties in the second and third stages, Apollo spacecraft tested satisfactorily.
- Apollo 8 -- Dec. 21, 1968. First manned test of Saturn V. Frank Borman, James A. Lovell, Jr., and William A. Anders made mankind's first orbits of the Moon.
- Apollo 9 -- March 3, 1969. James A. McDivitt, David R. Scott, and Russell L. Schweickart tested the Apollo spacecraft during 151 orbits of Earth. First flight of lunar module.
- Apollo 10 -- May 18, 1969. Second manned circumlunar flight, by Thomas P. Stafford, John W. Young, and Eugene A. Cernan. Lunar module piloted within 9.26 miles of surface.
- Apollo 11 -- July 16, 1969. First manned lunar landing made on July 20. Neil A. Armstrong and Edwin E. Aldrin, Jr. spent 2.8 hours outside lunar module in Sea of Tranquility. Michael Collins orbited overhead.
- Apollo 12 -- Nov. 14, 1969. Second landing, made in Ocean of Storms. Charles Conrad, Jr., Richard F. Gordon, and Alan L. Bean. Two EVA's, much science equipment set up.
- Apollo 13 -- Apr. 11, 1970. James A. Lovell, Jr., Fred W. Haise, Jr., and John L. Swigert circled the Moon, without landing, and returned to Earth after trouble with the service module of the Apollo spacecraft.
- Apollo 14 -- Jan. 31, 1971. Alan B. Shepard, Jr., Stuart A. Roosa, Edgar D. Mitchell. First exploration of lunar highlands, made in Fra Mauro area. Pull-cart used to transport scientific equipment and tools.
- Apollo 15 -- July 26, 1971. David R. Scott, Alfred M. Worden, and James B. Irwin. First use of Lunar Roving Vehicle. Stay time on surface doubled, reaching 66 hours, 56 mins.
- Apollo 16 -- Apr. 16, 1972. John W. Young, Thomas K. Mattingly II, and Charles M. Duke, Jr. LRV used to explore Descartes area.
- Apollo 17 -- Dec. 6, 1972. Eugene A. Cernan, Ronald E. Evans, and Harrison H. Schmitt. Last lunar mission in Project Apollo.



learning how to maneuver and work inside a space station.

Unlike previous manned space flight programs, Skylab provides a means for astronaut rescue, should trouble occur. A Command/Service Module (CSM) similar to the one in which astronauts will commute to and from Skylab can be modified into a rescue vehicle accommodating five rather than three crewmen. Two astronauts can pilot the modified CSM to Skylab and bring back Skylab's three crewmen.

Skylab will operate in space for about eight months during which time there will be three manned missions separated by two periods of unmanned operation. The first mission will begin in the spring of 1973 with two launches from Kennedy Space Center, Florida.

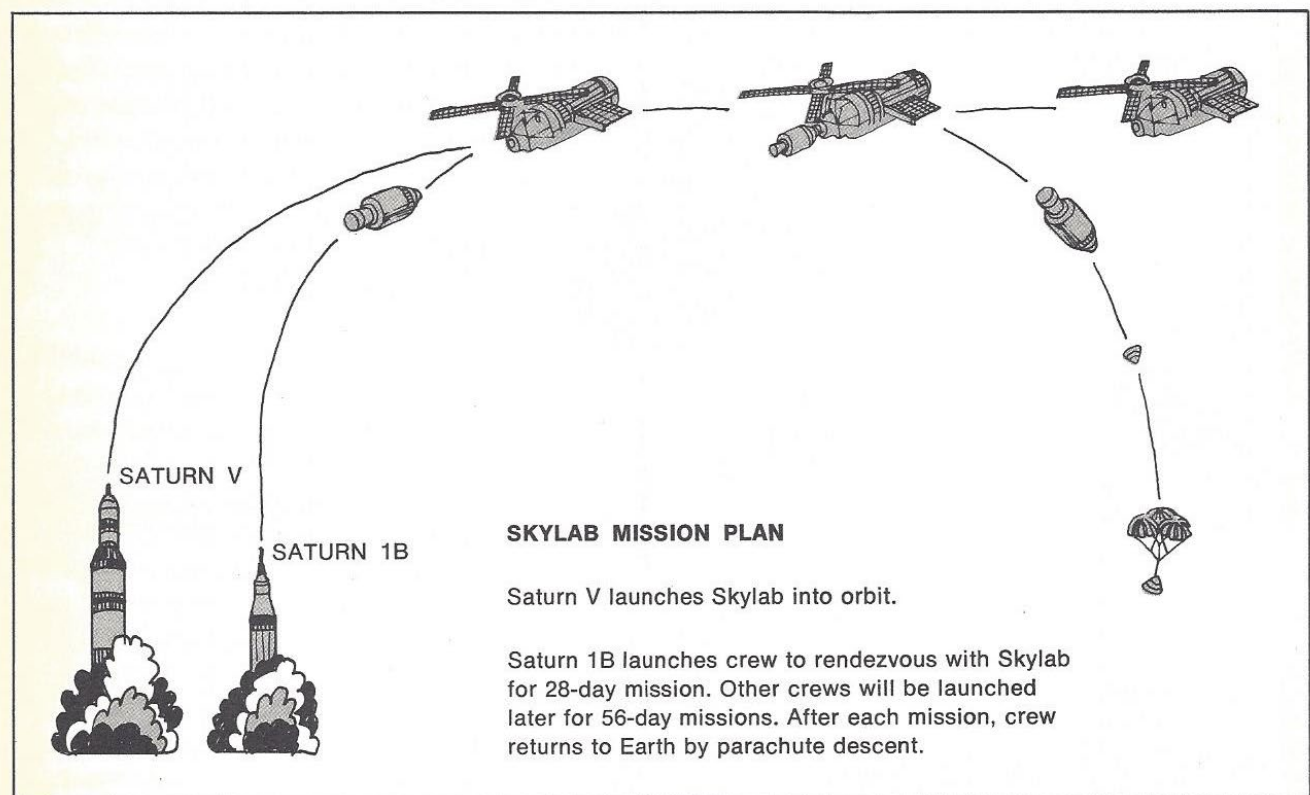
The first launch will be unmanned. The first two stages of a Saturn V launch

vehicle will place the Skylab into Earth orbit.

The next day a manned modified Command/Service Module (CSM), much like the one used in the Apollo lunar exploration program, will be sent into Earth orbit by the smaller Saturn 1B launch vehicle. On board the CSM will be Skylab's first three-man crew. The crew will dock the CSM with the Skylab. The crew will then activate Skylab.

In Skylab, the crew will be able to work and relax unencumbered by space suits. Its facilities will enable the astronauts to eat, sleep, wash, exercise, and work for periods of up to 56 days in space. Skylab's living space is about that of a small two-bedroom house.

After four weeks in space, the crew will return to their CSM, pull away from the rest of Skylab, and go through the



Sun. Mar.23

Fly to ???

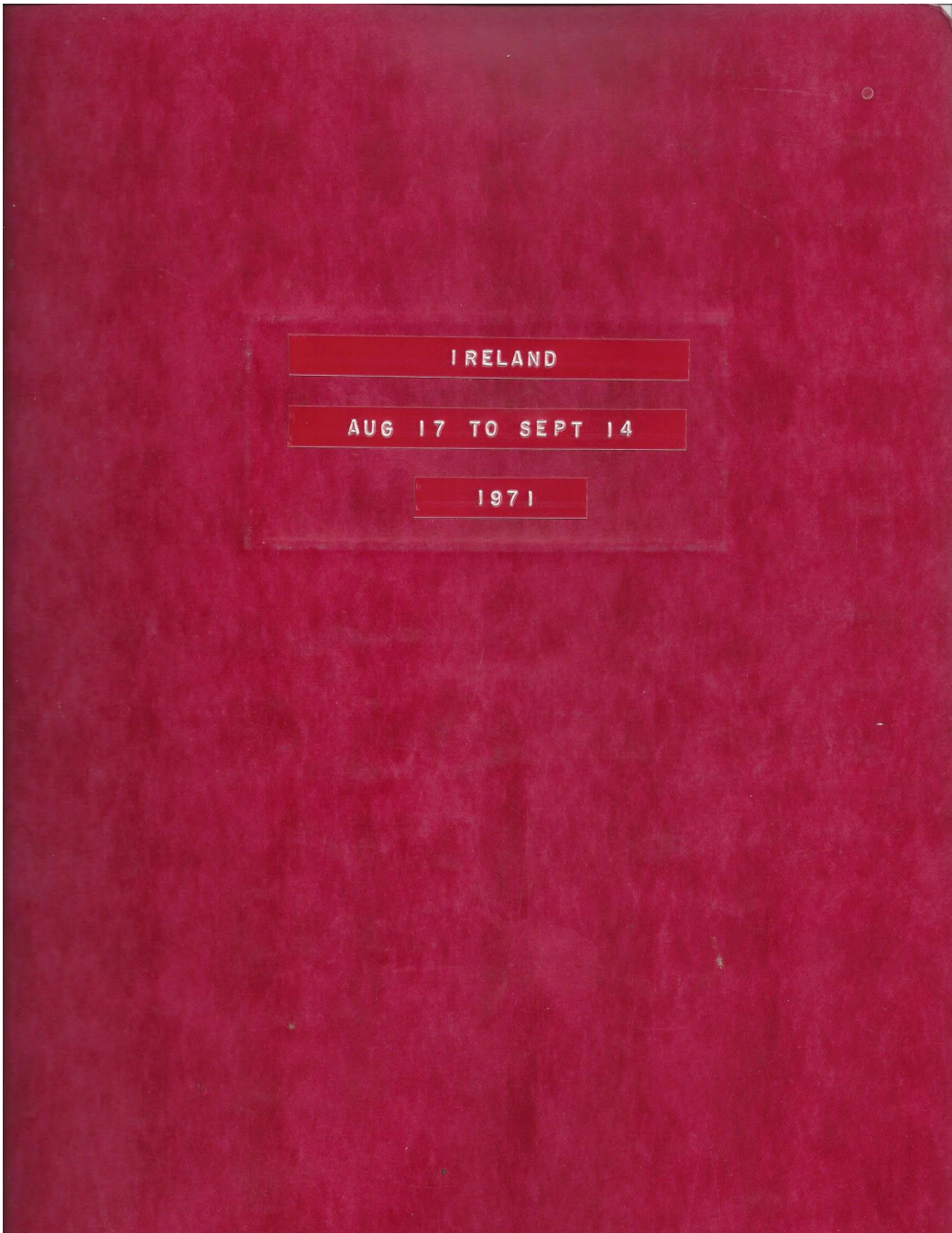
06/16/73 SA 243 ATL HSV

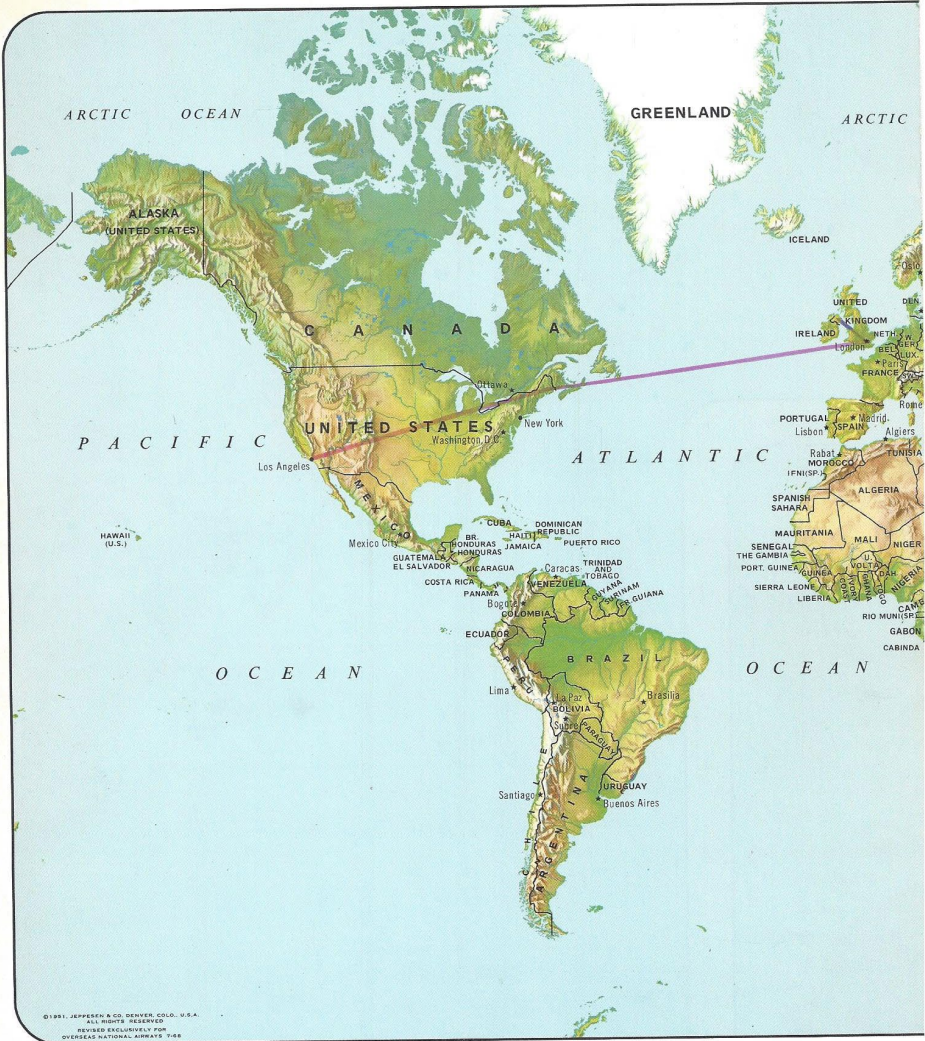
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TRAVELS NOW AND THEN

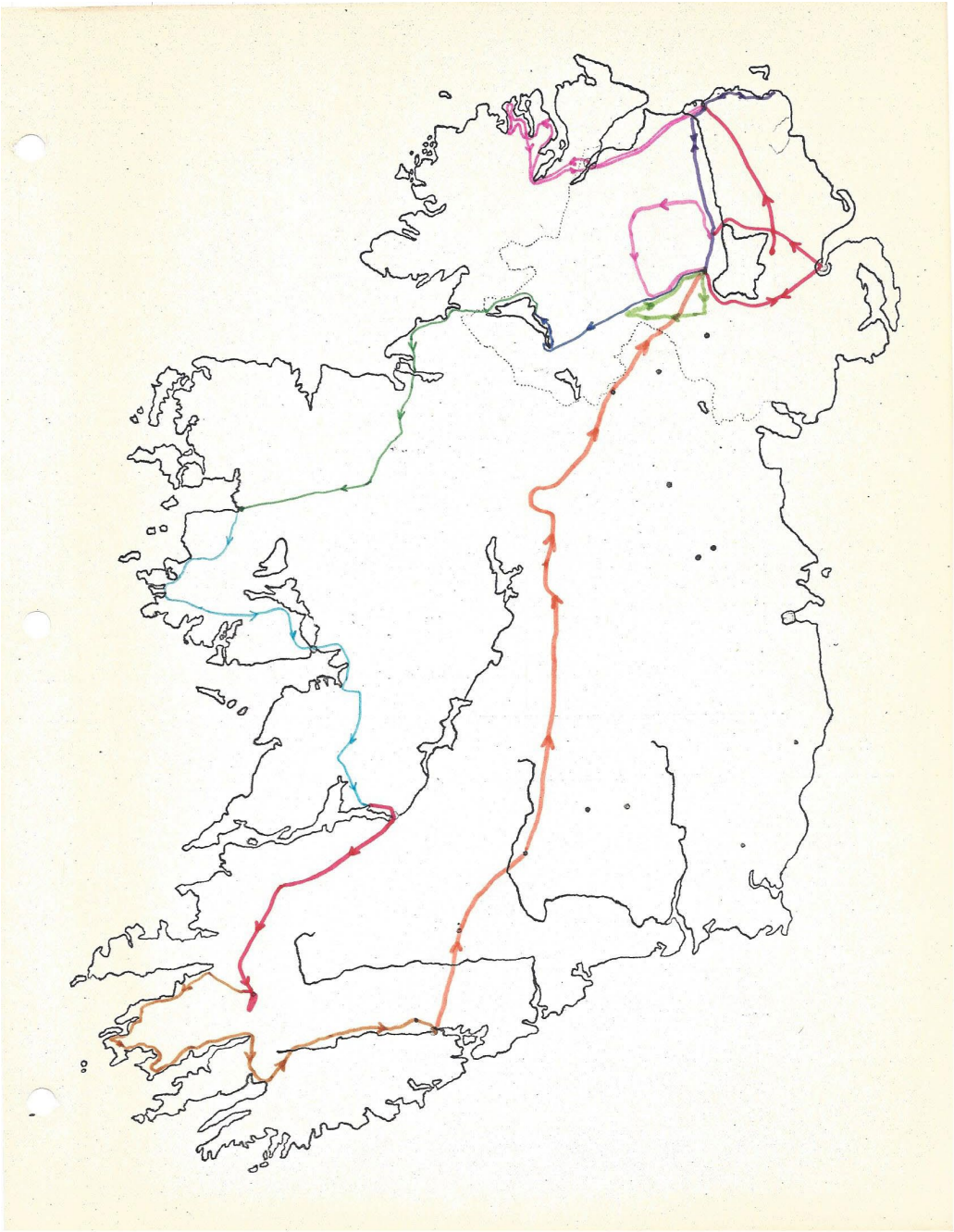
© Christopher Earls Brennan

IRELAND 1971





THE WORLD



AUG 17 and 18, 1971 TUESDAY + WEDNESDAY

Art Whitney collected us after we had completely locked up 1915 Los Lunas St and Mustang and took us to Marly's flat. Howard Wine then took the six of us to the West Imperial Terminal on the South side of Los Angeles International Airport. Checked in and waited around for two hours. Our flight on Overseas National Airways left roughly on time at 9.30 PM (actual left 10 PM) - a stretched DC 8 carrying 259 passengers - everyone very excited about leaving. We had cocktails and dinner during flight to Bangor, Maine - Kathy slept, Dana awake. - 4½ hrs to Bangor where we arrived shortly after dawn and disembarked in beautiful pine scented fresh air for an hour. Then followed a 5½ hr flight to London during which we had a champagne breakfast while both Dana and Kathy slept through. Saw "Eagle Rock" (?) or so pilot said when we first passed over Ireland (also Shigo?). Approach to London rather rough and Dana having just awoken was slightly sick (approach from N.W.) Landed at Gatwick at 5.30 PM London time and passed passport control and customs fairly easily so able to board the 7.30 PM Caledonian/B.O.A. flight to Belfast with a few minutes to spare. Had a nasty moment in purchasing the tickets when we discovered that we had only £30

in cash and they would not touch dollars after the recent fluctuations
on the world money market. Saved by old check book casually thrown
in at last moment - but the Belfast Banking Co. Ltd had been taken
over by the Northern Bank and no longer existed. I didn't call
at the time since we were not going to be stranded in Gortwick - cleared
it next morning with the Bank Manager. Short flight (50 mins) to
Belfast - where we were met with great joy by Dad, Ma and
Paula. Kathy, D. went with Dad in his new Mercedes Benz
250 SL while I drove Ma, Dana + Paula in Ma's 1300 Morris
station wagon - drove to Portlaoine uneventfully. Dana
remarked of Ballymoney on the way through - "This is a neat
town - but very dirty!" also "Gas Stations on the Sidewalk?!!"
Bed in Portlaoine after supper and chat. Dana slept in
bunk room with Ma and Da. D+I and Kathy in the big
bedroom.

FLIGHT COORDINATORS

P.O. BOX 25429
LOS ANGELES, CALIF. 90025



Dear VACATIONER,

Welcome Aboard!!

Enclosed in this envelope you will find the following:

1. RECEIPT OF MONIES PAID and reservation status: waitlist, or confirmed. (blue copy)
2. INVOICE FOR BALANCE of fare and date that it is due. If reservation is made 120 days or less prior to departure, you should have paid full amount (pink copy). Put in safe place to remind you of payment date.
3. INFORMATION BOOKLET which should answer most of the questions you have about your flight.
4. INSURANCE APPLICATION FORM outlining package policy of (a) missed flight insurance (airfare protector), (b) health and accident insurance, (c) baggage insurance. Please seriously consider insuring yourself in case of last minute cancellation of your flight due to illness or accident, both going and returning. It is not always possible to replace your seat and you could suffer loss of fare.
5. TOUR INFORMATION of the U.K. and Europe, car rental and purchase, Eurailpass and Britrail pass, etc. The number to call for this information is: 477-0091 - ask for GIULIANO.

We would like to remind you at this time that the exact time schedule of your flight, name of airline and other pertinent flight details will be mailed to you with a Briefing Meeting notice approximately 3 weeks prior to departure.

Please take note of this important information: Your club has a special phone number for all inquiries pertaining to flights. The number is : 477-0091. The special flight address is: P.O. Box 25429, L.A. Calif., 90025. For any other club business, please refer to your regular club number or address.

Sincerely,

FLIGHT COORDINATORS

KEEP THIS LETTER FOR REFERENCE

FLIGHT COORDINATORS

P.O. BOX 25429
LOS ANGELES, CALIF. 90025



FINAL INSTRUCTIONS

FLIGHT # 1799

TUE AUG 17 LEAVE	LOS ANGELES	9:00 PM (LOCAL TIME)	} OVERSEAS NATIONAL FLIGHT # 1799
WED AUG 18 ARRIVE	LONDON	5:30 PM (LONDON ")	
TUE SEP 14 LEAVE	LONDON	2:30 PM (LONDON ")	} OVERSEAS NATIONAL FLIGHT # 1799
TUE SEP 14 ARRIVE	LOS ANGELES	9:30 PM (LOCAL ")	

*****TICKETS ARE TO BE PICKED UP AT AIRPORT AT TIME OF CHECK-IN*****

AIRPORTS TO BE USED

On departure and arrival LOS ANGELES - WEST IMPERIAL TERMINAL of the Los Angeles International Airport - located on West Imperial Highway, approximately 1/2 mile west of Sepulveda Blvd.

Arrival and departure LONDON - GATWICK AIRPORT - 27 miles south of the City.

CHECK-IN PROCEDURES

You are instructed to check in at airports NO LATER THAN TWO HOURS PRIOR to departure time. TICKETS for your flight will be waiting for you at the airport at the check-in counter. When you check in, BE SURE to have in your possession:

CLUB MEMBERSHIP CARD

VALID PASSPORT

HEAD TAX

ALIEN CARD

TAX CLEARANCE

(passport office:688-3283,824-7261)
(\$3 per person collected at airport)
(for alien residents only)
(for aliens only - Internal Revenue
Office: 688-4137)

BAGGAGE ALLOWANCE

*50 pounds per person on charter flights (infants in arms, no baggage allowance). Flight bag will be included in this allowance.

*Please note that on inter-European flights, the baggage limit is only 44 pounds per person.

ARRIVAL IN LONDON

Arrival will be at GATWICK AIRPORT. Rail transportation (the best method) between the Airport and London's Victoria Station takes 50 minutes and costs approximately \$1.00. Coach transportation between Gatwick and London's Heathrow Airport (for connection to major European cities) takes 2 hours and costs approximately \$1.00. Frequent departures are available.

RETURN FROM LONDON

Please have your ticket, documents and baggage with you. When you arrive at Gatwick Airport, proceed to the BRITISH EUROPEAN AIRWAYS ticket counter for check-in. CHECK-IN at GATWICK is TWO HOURS PRIOR to departure time.

To check departure time in LONDON, and all other flight information, call Overseas National Airways at: 01-283-8711 Ext.6431 or Crawley 28822 Ext.255.

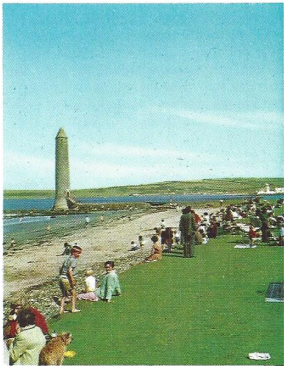
Should you find it necessary to cancel your RETURN flight, please call Mrs. Gladys Anderton, our U.K. representative, at Hassocks 3331. But please note that there can be no refund. For FLIGHT TIMES please call ONA ONLY (01-283-8711 Ext.6431 or Crawley 28822 Ext.255).

To check arrival time of flight in LOS ANGELES, call Overseas National (T. A.) at 646-5922 - 3 hours prior to scheduled arrival time.

The resorts and splendours of the Derry and Antrim Coast

The North East coast possesses one of the most magnificent drives in the world. Extending 60 miles from Larne, near the mouth of Belfast Lough, to Portstewart in County Londonderry, this famous road hugs the coast, traversing one charming holiday resort after another, and treating you to a spectacular panorama all the way. If you arrive in Northern Ireland for the first time at Larne, you should

make the Coast Road one of your first trips. Here's a tip though, for the experienced driver. When you drive North, don't leave the coast at Cushendun and cut across country to Ballycastle, but keep to the high road on the right that skirts the sea and you will have the thrilling experience of climbing the cliffs at Torr Head and looking out across the narrow channel to Scotland.

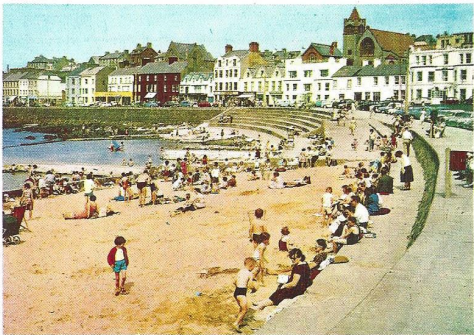
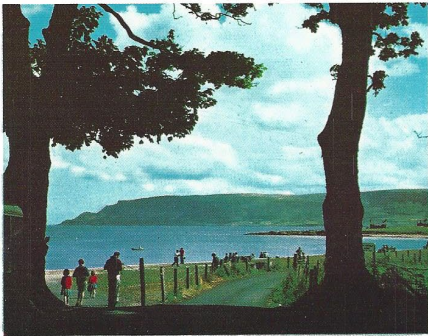


Above: Chain Monument, LARNE

Left: WEST STRAND, PORTRUSH

Bottom left: CUSHENDALL

PORTSTEWART, beach and promenade



AUG 19, 1971 THURSDAY

Morning - sun shining and clear skies so we set off to the Strand - Dad, Ma, Paula, D, Dana, Kathy + I - talked and played in the sand - then the kids and I roamed the sandhills for a while - Dana + Kathy sliding down - collected shells and wandered at the piles of black basalt stones. Then we went for a bathe - Kathy went in with Ganda - so did I - for 30 secs - too old. Up for lunch. Then Dad + I, Paula Dana + Kathy drove off to Dunluce. First stopped at farm behind Dunluce where the kids roamed in field with goats (+ kid), hens, kittens, ducks (+ ducklings) - then to the remarkably scenic Dunluce Castle on a vertically sided promontory

1. 290 441 Dunluce Castle, Portrush. Picturesque, turreted ruin on steep, sea-tunnelled crag, 3 miles east of Giant's Causeway. (Name: 'mermaid's fort', or 'strong fort'). Probably first built about 1300 by Norman Richard de Burgo. Later held by Irish MacQuillans and MacDonnells. Castle guidebook recounts varied history and legends. Vacated after kitchen and servants fell into the sea in 1639. Cave below penetrates right through the crag from land to sea.*†

Of particular note is the place where the kitchen + servants fell into the sea from a considerable height - the base of old classical chimneys which were later built over - and an ancient sketch on a rock of a Viking ship which may date earlier than 1300. Back for dinner - then in the early evening the same group visited the Bishop's Gate and Castle at Downhill - these are now nicely prepared as for a National Park and the gardens and duck pond (+ bog garden + lovely big rose hedges) were particularly lovely with nature walks laid out. The Mussenden Temple is also



Portstewart Strand



Portstewart Strand



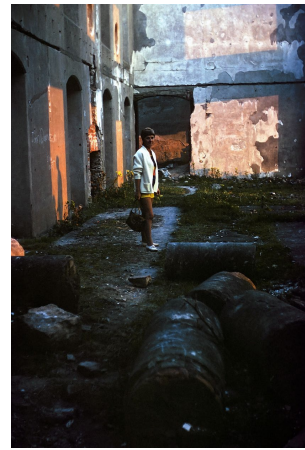
Dunluce Castle



Dunluce Castle



Dunluce Castle



Bishop's Downhill Castle

a part of the park, though the old and extensive ruins of the Bishops Palace are not - and are still used to stall cattle - however some beautiful pieces of Georgian architecture remain and apparently many beautiful pieces were pilfered when the main palace became deserted (Adam fireplaces, etc). We clambered about it quite a bit.

On returning home to "Silverbury" we were joined a little later by Chin and his prospective wife, Diane, whom we thought and very pretty and sweet girl. We talked along time.

8 and 9. **276 435 Downhill and Mussenden Temple.** Mansion (ruined) and Roman-style cliff-top library built by Frederick Augustus Herve, Earl of Bristol and Bishop of Derry, 18th Century wealthy eccentric and art collector after whom all Hotel Bristols are named. There are many stories of the playful bishop's pranks, including race between fat and lean clergymen across a nearby quicksand.*

AUGUST 20, 1971 FRIDAY

Up late and set off for Dungannon, arriving about 1.00pm to a joyful reunion with Ma + Da Kew. Talked alot during the afternoon and heard about the riots, troubles and boarding up of shops in Dungannon. As with my parents, Kathy seemed to remember little of 15, Park Road but seemed to accept it in a slightly overwhelmed way. I took Dana and Kathy out for a short drive in the ~~car~~ late afternoon while D. chatted with her mum. We went out to Castlecaulfield where we happened upon the castle - upon which some repairs appeared to be being done - though no-one was in at right and nor was any information on the castle. While entering it we saw 2 little girls and a boy (6-9 yrs old) tentatively following us and they gleefully accompanied us when I asked them

27. 275 362 **Castle Caulfield (or Caulfeild)**. Ruins of early 17th century Elizabethan-style mansion of Sir Toby Caulfeild, English knight from Oxford, who administered the confiscated O'Neill lands during the early Plantation. Acquired vast lands for himself but sought to befriend the Irish. In 1670 a descendant permitted ordination of Catholic priests in the courtyard. In 1767 John Wesley preached there. In 1782 a later descendant (Lord Charlemont) campaigned for the independence of the Irish Parliament.

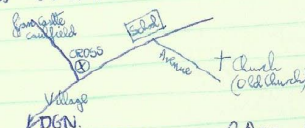
Though they knew nothing of the castle they were most amusing and amused at our accents, dress and the fact that we lived in California - close to Disneyland!! Also amused as I explained to D and K. that nettles stung! - and identified nettles for them. On leaving I gave them a dime each which widened their eyes! Drove back to Dungannon via Donaghmore where there is an ancient Celtic cross



Dungannon High School for Girls

28. 276 366 Donaghmore Cross. 10th-11th century, 15 ft. high, but part missing since knocked down in 17th century religious wars.

Donaghmore was also the home of my French great grandfather - he and his wife taught in a school there, brought up a family - the last remaining Brennen in Donaghmore - their daughter - Maud died around 1969 or 1970 and a son, Alfred, a sometime alcoholic - he - of driving his car through bonfire in alley - fame died around the same time in Cookstown. The Frenchman (whom Dad's grandfather Kev recalled for me shortly before his death) was big in Church of Ireland and a recent donation to DONAGHMORE PARISH CHURCH (communion plate - chairs in chancel) celebrates his contributions.



Back for dinner in Fale Road. Left shortly after and drove

to Magherafelt - to "Cranagh Delu" - where we met Dad and some of Colin's friends watching colour television. We looked at some of our stored things on the top floor - then Michael arrived and we agreed to follow him round to Lesley's folks' home on Westland Road where we saw our niece, and Dana and Kathy's cousin, NATASHA LYNN BRENNEN for the first time - a beautiful baby. Then back to Pobleart to "Silverbay" where we talked with Colin before bedtime.

AUGUST 21, 1971 SATURDAY

Got dressed up for Colin's wedding and drove to Macosquin - St. Mary's Church of Ireland - for 11.00am service. Took care of arrivals before the ½ hr. extended marriage service - rather pretentiously traditional. Then filmed the celebrations outside while Colin + Diane left in an Austin Princess Taxi. On the Brennan side - Mike + Les, Dad, Ma + Paula, Doreen I, Doreen and Kathy. Cecil and Majorie - then to Clonavin Hotel, Portlewart Rd, Coleraine for the reception - drinks on the lawn in beautiful sunshine. Then into a champagne lunch - with cake cutting. Colin made a very nice speech. I talked with Cecil especially of his plans (past + possible future) to move to & visit N. America. Then photographs and Colin + Diane left for Dublin + Kerry. Then back to Lillibeg where we had tea with Cecil and Majorie, Mike and Les. After they left we all went to the beach but it was cooler so we played around only for a short time - then back to Lillibeg. Before dinner I went with Kathy down to the rock pools to sail her boat - which we loved - but was also rather frightened of the sea and the flow of water from one pool to another - also visited the ruin of the Coast Guard observation post - or "TARDUS" before dinner. Dad had left for Magherafelt to resume work shortly after the beach.



Colin and Diane's wedding



Colin and Diane's wedding



Colin and Diane's wedding



Colin and Diane's wedding



Colin and Diane's wedding



Colin and Diane's wedding



Kathy

AUGUST 22, 1971 SUNDAY

Up late. After breakfast all (Ma, Paula + us) drove to Benwarden Lion Safari Zoo which had only recently opened. Tour consisted of three sets of lions - the first a frisky and young lot playing with hands and climbing the trees (into the first, low boughs) and chasing each other - great fun. Then a second sleepy lot of older lions - then a similar third lot but the ranger in his safari truck kept driving at them - antagonizing them and making them run around - clearly this intention was to exercise them. Outside was a small zoo which we toured, the helter-skelter moved from Barry's in Portrush and a donkey and cart in which the kids rode. Had coffee and toured the store before driving back to Silverday for a late lunch. Afternoon we went (minus Ma) to the Giant's Causeway where we took the main path down and identified most of the features on the causeways - the kids got great amusement from the legends of Finn McCool. Then we walked up to the organ pipes where D. and Paula rested while Dana, Kathy and I walked ~~at~~ around the trail on the cliff through the amphitheatre to Port-na-Spania where the recent treasure of the Spanish Armada galleon Girona was recovered (see story attached) It began to rain so we walked back up the spectacular St. Shepards path to the Cliff Path back to the carpark



At the Giant's Causeway



At the Giant's Causeway

Back to dinner after which we talked, played rummy - won fairly
and squarely by Dana - Chris second, Ma 3rd, Paula 4th, D 5th, Margaret 6th.
Then bed.

AUGUST 23, 1971 MONDAY.

Up early and we all (us and Ma+Paula) left at 9.15 driving via Limavady to Londonderry. When planning the trip we had worried over the advisability and danger of driving through Londonderry - and what the best road to take would be - also unclear as to where the "Boyside" Celtic glats area was. So I had asked a passing RAC man and was reassured that either main road would be OK during daylight hours. We took the Strand Road out of Derry - everywhere policemen and soldiers in pairs - many boarded up windows - and a few burnt buildings and vehicles. We were stopped momentarily by an army road-block - armoured cars and machineguns - just short of the border through which we then passed. The Eire customs officer approached the car and asked "Any goods on us" - some moments before I realised that this was Irish for "Have you anything to declare" - Ma translated. Shortly passed the border we turned off the main road and made our way along tiny lanes and up a mountain to the GRIANAN OF AILEACH, whose symmetrical and flat slopes could be seen for miles around.

82. 236 419 Grianan of Aileach, 5 miles north-west of Londonderry at 800 ft. with magnificent views of Lough Swilly. Great circular Iron Age fort, first royal seat of O'Neills, Kings of Ulster.*†

One of the best preserved early Celtic forts (about 400 A.D.?) here lived the early northern kings. A fine circular fort with chambers within the interiorly tiered walls (unmortared + 17 ft high) - surrounded by three more outer rings



The Grianan of Aileach



The Grianan of Aileach



At Fort Royal Hotel



Donegal

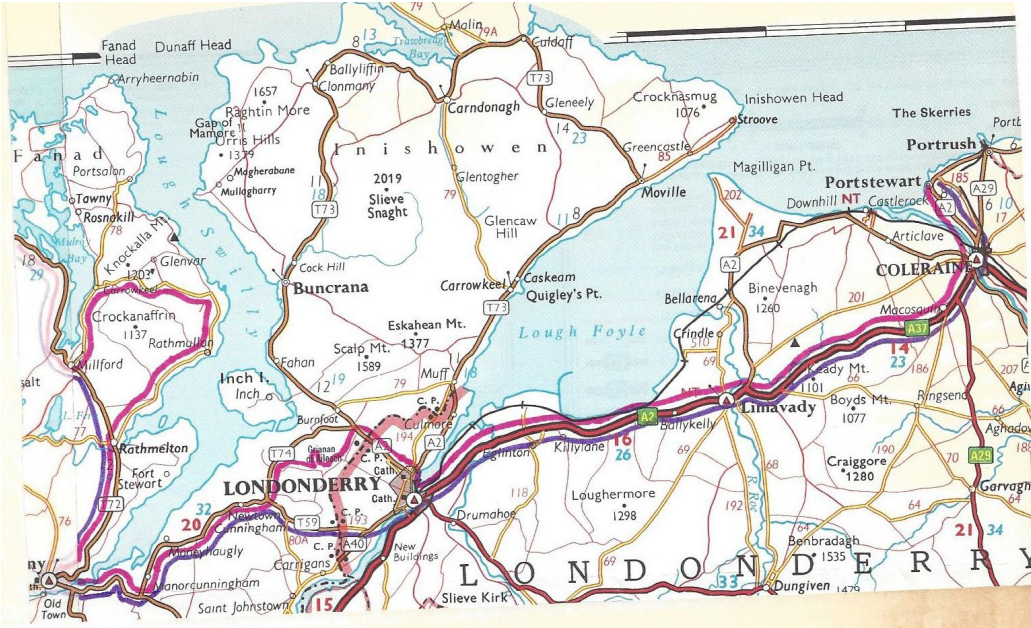


Donegal



Donegal





of defence. Occupied from the 5th to 12th centuries. Magnificent view all around with below and nearby a rocky depression which may have been a quarry. St. Angus, a grandson of King Eoghan, was baptized by St. Patrick in the fort. We pressed on past other more modern ruins to Lethkenny and then Ramelton (a Protestant settlement area) where we stopped to admire the old harbour buildings and warehouses. Then onto Rathmullen where having stopped momentarily at the "Priory" (see story of kidnapping of Red Hugh O'Donnell) we drove the mile or so to Fort Royal. Here as a kid, my family had spent two happy summer vacations staying in and renting the lodge house of the Hotel. This hotel - "Fort Royal" was now much expanded - but the little cove and beach was much as it always was. We picnicked in the dunes behind the beach a bit north of Fort Royal after which Kathy, Dana and I walked through the woods by the beach back into the grounds of Fort Royal to the small "castle" or little tower which I had played in as a kid. Then on to Carronbeg and to Millford then to Carrigrohane much of the drive being along the shores of the lovely Lough. Then down to Doe Castle - on the way - two little boys with parkies and wicker foot baskets waited beside the road for tourists - took a picture with Dana + Kathy. Doe Castle:

80. 208 432 Doe Castle. Sturdy ruin of 15th century stronghold (modernized 1800) on shore of Sheep Haven.

was occupied until late 19th century. It was built as the stronghold of the



Mac Suireney clan and Red Hugh O'Donnell was brought up in the castle which was subsequently used as a base for an attack on Derry. Removed from a nearby graveyard and exhibited in the castle is a grave slab with the Mac Suireney arms and an elaborate cross which marked the grave of Mac Suibhne na Doe, chief of the clan. Owen Roe O'Neill landed here prior to his accession to the leader of the northern or Ulster army. We then retraced our steps a little and found the Atlantic Drive north of Downings - Nice old boatyard making fishing tramps - beautiful vistas - curachs in the tiny fishing village half way road - also thatched roofs held down by fishing nets weighted on all sides with stones. Then to Downings and McNeill's weaving factory and shop - one of the original homes of Donegal Tweed. Saw now upon row of hand weavers working with great chatter on their looms - the spinning room was not open to the public. Then back to drinks and dinner in the main hotel in Carrigart. After dinner we drove straight back to Derry with a short stop by the Lough just before Milford. Stopped by army patrol just before Derry - came back along road which skirts the Bogside - tragic place - paving stones all ripped up for use as missiles - a line of burnt out buses by the river - then straight back to Portstewart and Coleraine. Quiet evening with supper.

AUG 24 1971 TUESDAY

Up rather late after long previous day - family plus Ma and Paula went to Cleve's swimming pool - Ma watched as the rest got in at the start of a "session". The kids were sensational with Kathy jumping widdly off the high board (actually for the first time) - Oh and Ah's from all around. On the other hand Dana's favorite - underwater swimming - was very unpleasant due to the high chlorination plus murkiness of the water - perhaps this is because it is not recirculated as is the Caltick pool.

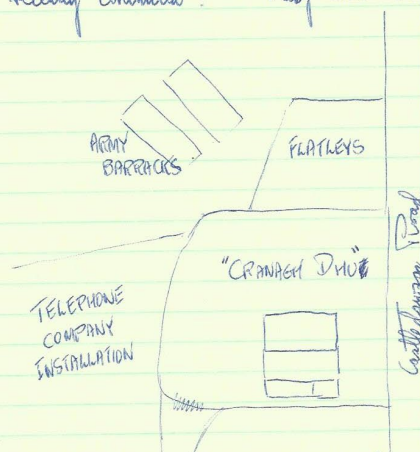
Then back to lunch - family plus Paula off to Cleve's again to shop for shoes, go to bank (lucky to get \$2.47 to £ - Bobby Malsed manager). Priced Carousel Projector - amazed to find they were £89 → £117 (compare the \$70 which mine cost me). Inquired about Donorables for hire with zero luck in Cleve's. Back to Portlaurant - cup of tea - then off to our childhood and adolescence ~~home~~ haunt - Bamy's - which was much as it used to be except for the missing better shelter (moved to Lion Park into Barmenden) and some additions in the rear. Rode on (i) Cars on oval tracks. Dana + D. vs Paula, Kathy, Chris (ii) Individual small cars for kids. Kathy hilarious - little idea how to steer so she kept going in small circles. Dana and Paula very proficient (iii) Big Ripper roller coaster - all perturbed but excited (iv) Carousel (Kathy's favorite) (v) Some slot machines plus the small

roundabout (v) Chalk train with Dana and Kathy - both with eyes closed after the grill. Then strolled out to old "vintage cars" which Dana, K + Paula rode while I filmed. Pleasant evening so we strolled down to the harbour and out the walk toward the bathing place. Paula, Dana, K and I went in a rowing boat in the harbour for 20 minutes in amongst all the moored pleasure vessels and fishing boats - Dana rowed well. But then Dana decided she had urgently to go to the toilet. There followed a violent struggle to get among the large fishing boats so that we would be out of sight while she "went". - In vain - she whipped down her pants just behind me and while she peed I slipped - banged her on the head with an oar and we all landed on the floor - however no harm done.

Back to Saturday for ~~Olga~~ dinner - Dad arrived and we spent the evening talking. I decided to return to "Cranagh Hill" that evening so that I could do all my ~~left~~ telephoning the following morning. So I followed him back in Ma's 1300 car. Watched their marvellous slow T.V. - much better than the colour in the U.S. Then poked around among our old belongings on the 1st floor (turning up some gems like the Greek trip diary) before having a bath and then going to sleep in Colin's room - my old room - and prior to that "The Study".

AUGUST 25 1971 WEDNESDAY

Up early for breakfast with Dad. Strolled outside "Cranagh Drive" in a sentimental way - beautiful green grass - addies with a gun strolling around the grounds - young lad with broad N. English accent ^(from Durham) - complained about the mud and drainage around the barracks bordering on our grounds and recently constructed. They were obviously patrolling our grounds and using



them as dirt + entry in the family's absence. He was on leave when his squad was sent to Derry because of some troubles. Having played piano for a moment, I then spent 2½ hours telephoning. Firstly to England where I talked with Les Woods, Holder and Lighthill's secretary as well as George Gadd and arranged my trips and visits in England. Then to rental firms where I eventually located, telephoned and arranged to rent a Daimler from CLARENCE ENGINEERING in Belfast (corner of Bedford St + Omeau Avenue)

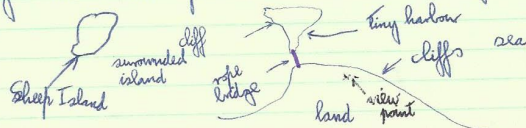
Talked with a Mr. Joseph Salmon. Also talked with MaKew who read the riot act to me about contemplating a visit to the South - called them "our enemies". Dad arrived for lunch just as I finished. Then after a few words I drove back to Portlaoine and Salsbury - D, D+K were out walking the Promenade so we collected them. After coffee we drove east along the coast - first to Dunseverick

2. 299 444 Dunseverick Castle. Scanty remains, on sea crag, of ancient fortress which, according to tradition, was North terminus of one of 5 roads radiating from Tara in Celtic times.

The pool in the rocks was rather crowded so we foraged around the beautiful little harbor for a while, noticed the new National Park coastal trail and drove on to Port Badden just a little way from White Park Bay.

3. 302 444 White Park Bay. Near the Giant's Causeway - beautiful bay with a mile of white beach surrounded by cliffs and dunes.*

Looked in the tiny little church with ancient prayer selt, kibble and altar (St. Colman?). Admired White Park Bay then on to Ballintoy - just past which the ancient road goes straight up a steep hill while the more recent (though probably still 50 years old) road winds back and forth. Nearly in Carrick-a-Pede rope bridge and Dana and I made the long climb down from the road to the bridge.



Magnificent view with blue/green water. Dana and I crossed the



Ballintoy



Dunseverick



Carrick-a-Rede

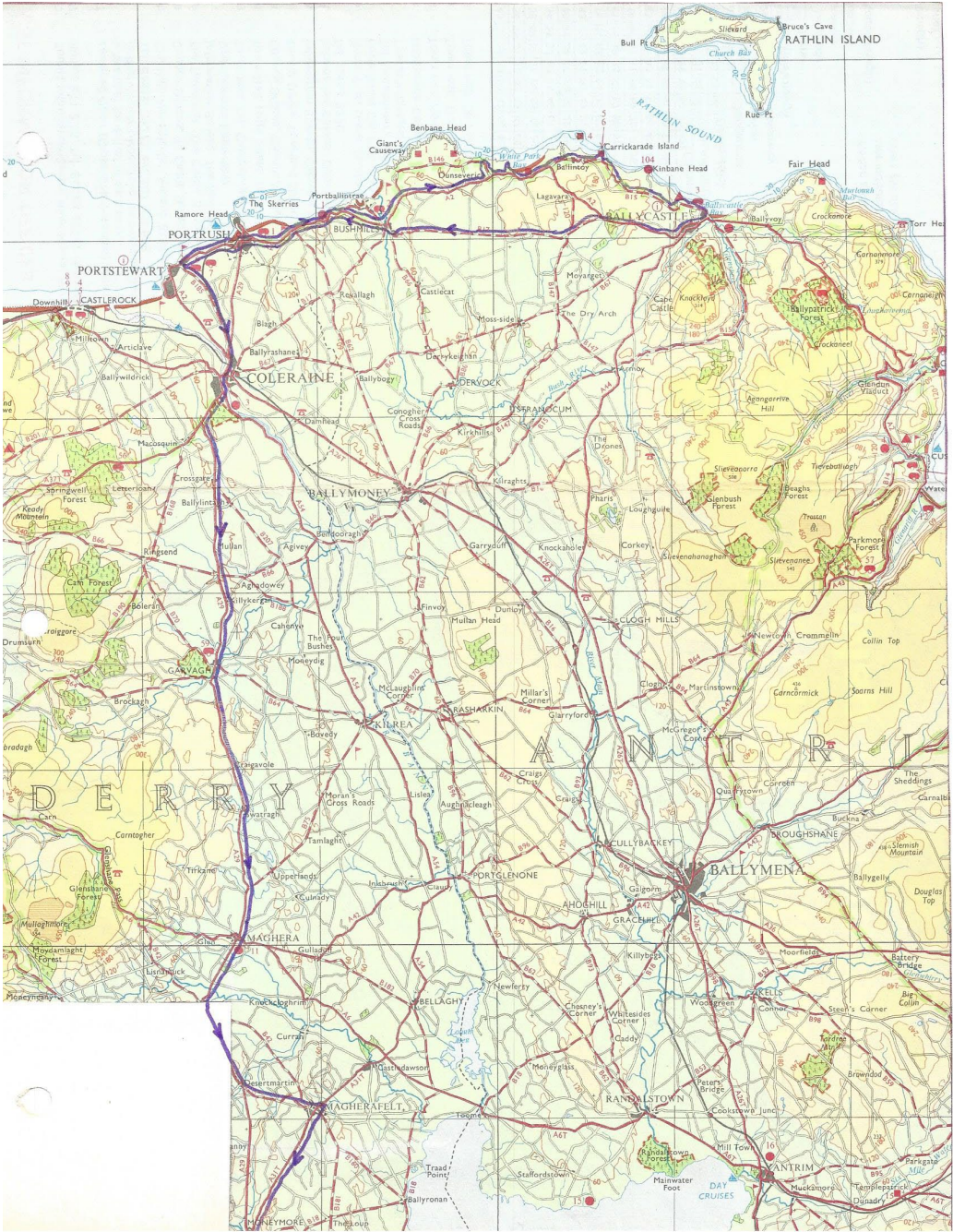


Ballycastle

rope bridge

4. 304 445 Sheep Island. Cliff-sided seabird sanctuary visible from Ballintoy Harbour.
5 and 6. 305 444 Carrick-a-Rede Rope Bridge. Swinging bridge across chasm 60 ft.
wide and 80 ft. deep to island fishery with magnificent coastal scenery.*

hand-in-hand - a hand each for the rope-raiding. Walked around tiny
cliff-sided island and then returned - return more frightening - Dana did
very well to keep his nerve. Long climb back to road. (P.S. The fishermen constructed
the bridge to get to the tiny harbor on the island). Then on to
Ballycastle and after a brief stop take the main road back to
Bushmills and Portstewart. Dinner - then loaded our stuff into Ma's 1300
and drove with Ma to "Cranagh Inn". Met Dad. Kero arrived, we
transferred to the Escort and drove to Dungannon

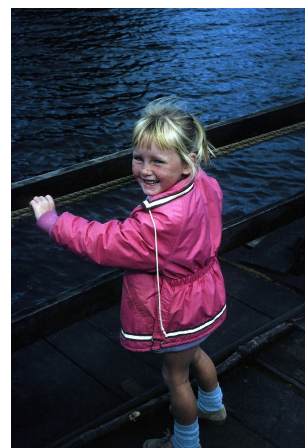


AUGUST 26 1971 THURSDAY.

Up late. Doreen's grandmother - Granny Mac - and her cousin Shona came to visit - talked - and took some photographs then lunchtime. Then D, Dana, Kathy and I set off in the Escort - first to Benbulbin where we parked by the monastery (formerly the manor house) and walked down to the "bawn" or fortified farmstead in the manor grounds - a fine example of a bawn built by early planters. However it was all closed up since someone still lives in the cottage inside it. [Locally the castle is also supposed connected with the O'Neills] Then walked down into the wooded glen through which the Blackwater runs and over the bridge. [Mac O'Neill defeated the Elizabethan English army under Essex at the battle of the Ford]. Dana had a sore leg so Kathy and I walked on to the Benbulbin Weir - very pretty - old water wheels - salmon leaps. Then back to the car and drove to Aughranbeg and stopped briefly at the school where D. taught. Then on to Augher encountering herds of cows on the road. From Augher to the pretty Knockmany forest. Girls did not feel like walking so I climbed the pine and heather covered $\frac{1}{2}$ mile to the top of the prominent hill - beautiful aroma from pine and heather - on top of the hill is the Knockmany Chambered Cairn which is renowned for its curvilinear inscriptions. However the cairn is now housed in a



Dungannon



Bann car ferry!

36. 254 355 Knockmany Chambered Cairn. Atop 700 ft. hill in Knockmany Forest, chambered burial cairn, c. 1800 B.C., noteworthy for incised circular and zigzag patterns as found in Brittany, Portugal and Spain, considered to herald the Bronze Age and arrival of a copper-smelting race of Celts. Some authorities see the patterns as last memories of cult of mother goddess or sungod, originating in Syria 3-4000 B.C.†

glass topped shelter (to protect it from weather?). One can only peer through the iron barred gate which is a little disappointing - but curvilinear pattern is at least visible. The view from the hilltop is impressive and commands the valley below for many miles around. The forest is fairly well developed. We then drove on a little to the Errigal Keeroge Cross and Church near Ballygawley.

37. 258 357 Errigal Keeroge Cross and Church, Ballygawley. Hilltop ruin with expansive view. Cross of primitive design may represent transition from crude Early Christian to later elaborate 'Celtic' crosses.

I tramped through the long + wet grass of the graveyard trying to find something of interest - ruin completely buried in ivy - no indicative signposts - think I identified the cross much weathered - view not expansive at least compared with Knockmany - in summary not worth visiting, though there are some quaint old gravestones.

D. drove back to Dungannon. She finds difficulty with the shambling nature of town + village driving + parking. After dinner D. and I strolled up to the square. Many shops all boarded up - clearly pessimistic view envisions civil war. But this evening quiet with lovely fresh air and remarkable red, purple + blue sky spent the evening talking.

AUGUST 27, 1971 FRIDAY.

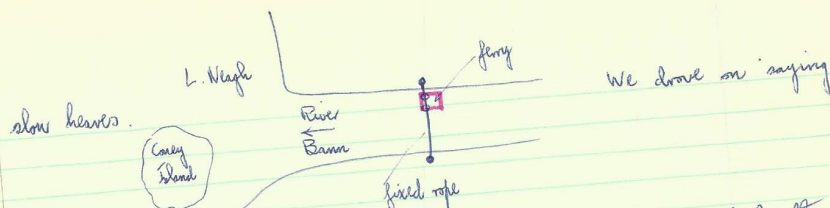
Around mid-morning Kathy and I set off for a short drive in the East - drove to Coalisland - then down a small minor road to Mountjoy

Castle

29. 290 368 Mountjoy Castle, Coal-island. Remains of a large, sturdy fort, near west shore of Lough Neagh, built 1602, which changed hands often in 17th century wars and was garrisoned by both James II and William III.

When I and I had

happened upon this many years ago it was used by the farmer (whose house adjoins the ruins) to house cattle. Now ~~also~~ a National Monument it is better presented though the remains do NOT suggest a large fort and are rather paltry and uninteresting. Kathy was not excited about the rabbit she saw. We then proceeded to get lost in the maze of small roads near the lough many of which ended abruptly at a farmhouse. Eventually directions from a "lourd-man" in his truck allowed us to find our way back to the M1 and out to Maghera on the shore of Lough Neagh. There we found that the ferry over the Blackwater was no more which accounted for the fact that we could not find the road to it on the other side (see above). Then drove down to the ferry over the Bann at Banquet and drew up. Ferry on the other side and no-one in sight. 10 minutes wait. Then an old woman moved slowly from the house toward the ferry on the other side. We tried shouting that we did not want to cross even though drawn up in a position to do so - but she must have been partially deaf. She then pulled the ferry across to our side with agonizingly



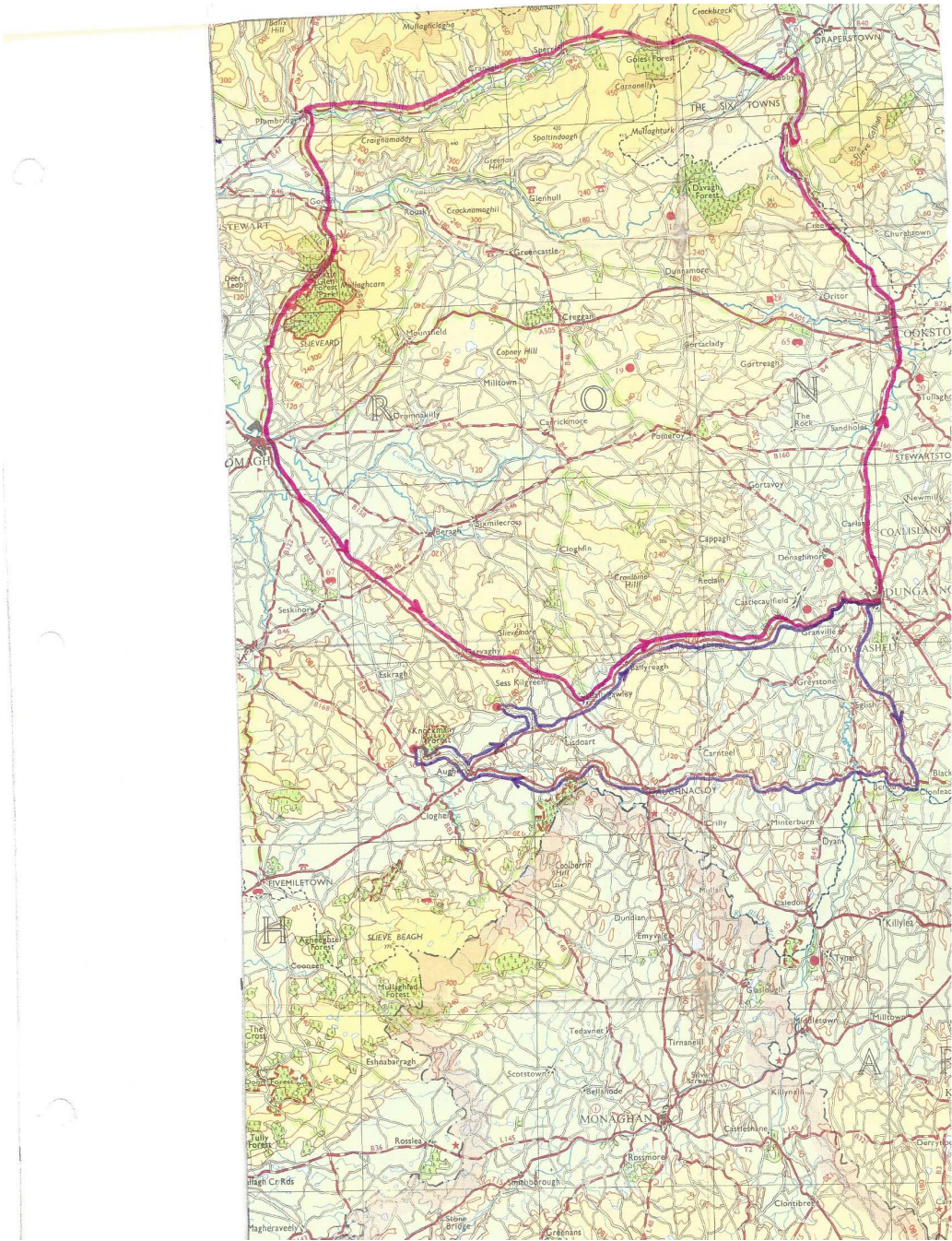
we wanted a return trip - she was a very nice old dear - must be the wife of the man I remember steering the ferry who may now be dead - she posed for a photo with Kathy at the other side - then returned - described for 3 shillings (15p) - but I gave her 50p for her kindness and this pleased her greatly. Drove quickly back to Dungannon via M1 for lunch but stopped briefly at the playground in Milltown for Kathy.

All of us plus Ma Kew set off after lunch for a long drive. First to Lough Fea via Cookstown. The old house with the air raid shelter (!! - in the middle of nowhere) is now gone - very pretty lough - remembered from skating in winter and for the fact that Colin almost drowned here whilst picnicing on the wooded "island". Drove to and found after a little trouble the Ballybriest Cairn Grave - in the middle of a field full of cows:

14. 275 387 Ballybriest Long Cairn.
Part of a double 'Ulster horned cairn', half having been cleared away in farming, in superb mountain scenery $\frac{1}{4}$ mile north of Lough Fea.

Dona (with some help) and I walked through the cows and looked at the cairn. About to start back when I realized a large bull stood directly in our path. Walked in perpendicular direction in an attempt to get into the next field so as to get back to the road - but large bull nearby

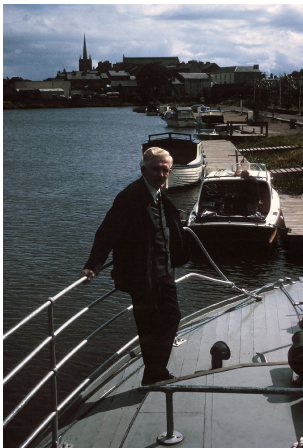
in that field too!! Escaped by large detour round first hill. Then drove
along the Sperrin "Scenic Route" down the valley of the Glenselly river -
very pretty mountain scenery - sheep everywhere. Drove ~~back~~ to Plumbridge
then Gortin. D. drove back home through the pretty Gortin Glen Forest Park
to Omagh and then Dungannon. Arrived late (6.30pm). After dinner
talked and Sam and I played snooker (1 each) before bedtime.



Dormobile



Enniskillen



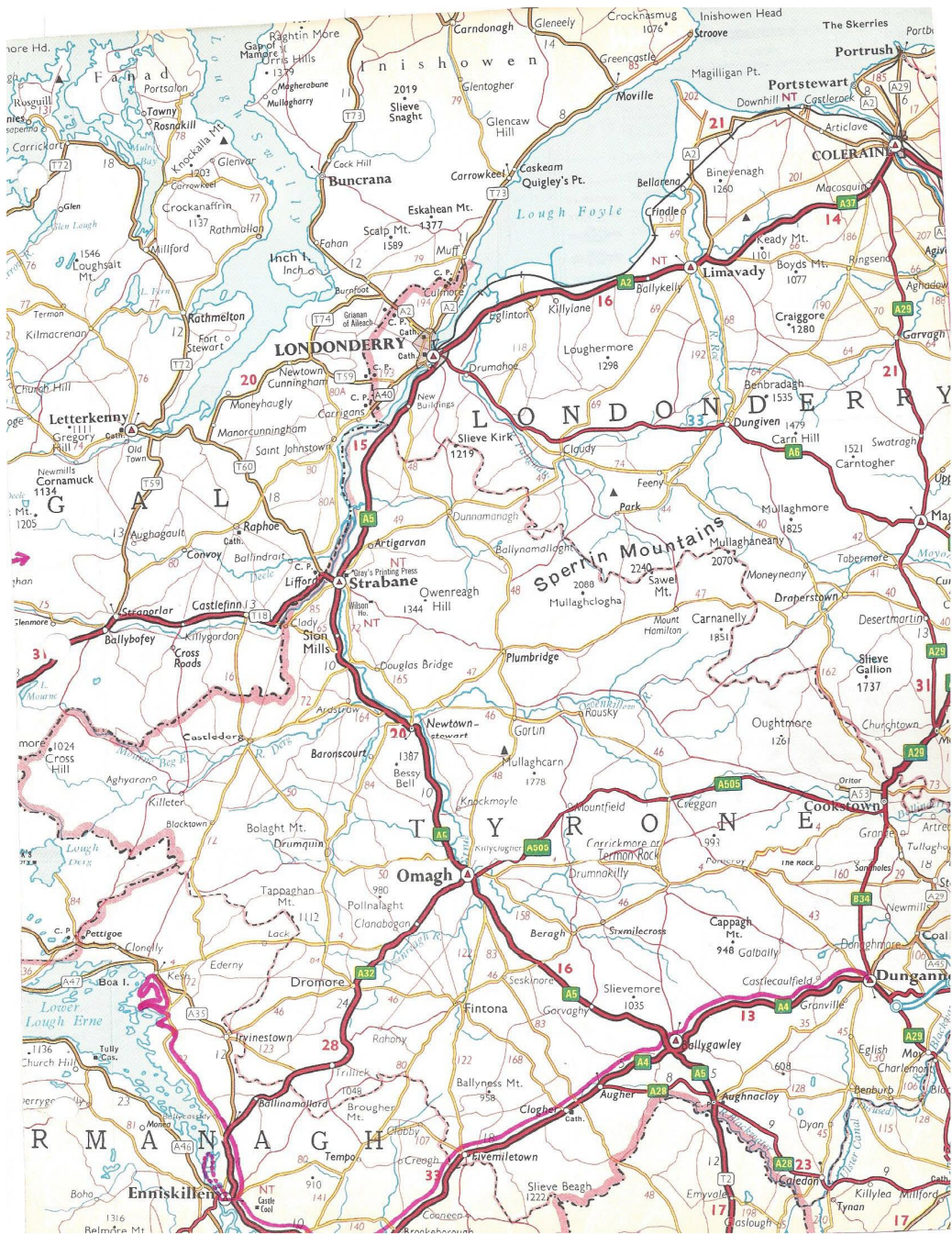
Lough Erne and Devenish Island



Devenish Island



Devenish Island



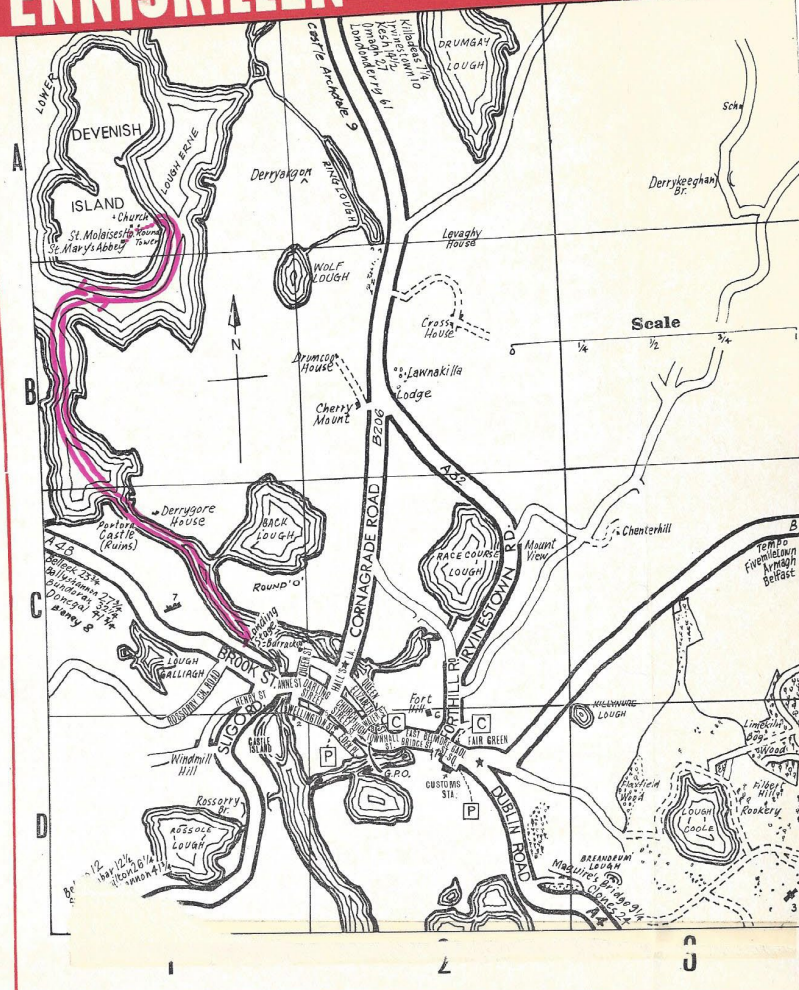
AUGUST 29, 1971

SUNDAY

Up early. Kathy, Dana and I set off somewhat in advance in the van and drove in pleasant sunny weather toward Enniskillen. Almost there before D, Sam + Ma Kew caught up in Escort. Stopped briefly in centre of Enniskillen and got some information in ~~see~~ a hotel even though tourist office closed. Drove down to the boat quay - past the Castle

ENNISKILLEN CASTLE AND WATER GATE Map 1—Ref: L 13
The earliest mention of a castle in Enniskillen was in 1439 when it is recorded that Maguire was taken prisoner in his own castle. The castle was besieged and captured by the English towards the end of the sixteenth century. After varying fortunes, during which the castle was captured and re-captured, it finally came into the charge of Captain William Cole in the early seventeenth century. The original bottom storey of the keep still remains, with the surviving large tower probably representing the 15th century castle, but the upper storeys have been largely re-built for use as a barracks. The remarkably fine Water Gate was probably built in the 1580s.

and had lunch in the van by the quay. Then went on the boat tour which left at 1.30pm. The guide decided Potomac Royal School, Backe Lough, Potomac Castle etc as we passed - through the locks into Lower Lough Erne - quite windy - moved at the landing stage on Devenish Island after a heated argument between our guide and a man who had allegedly moved in the place reserved for the tour boat - this argument continued pointlessly after we had disembarked - the very Irish little guide versus a member of the upper-class Ulster Scotch - the apparently endless confrontation - the result so always a draw - very symbolic - the tribal system of order versus capitalism and individual competition. The guide recovered and gave us a tour of the impressive ruins on Devenish Island - a very worthwhile ancient monument to visit - unfortunately scaffolding

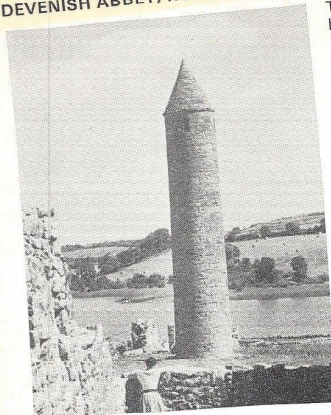


Reproduced by courtesy of A.A.

COUNTY FERMA

not enveloped the round tower at the time of our visit

DEVENISH ABBEY, ROUND TOWER AND CHURCHES Map 1—Ref: K 13



The island of Devenish, two miles below Enniskillen, in lower Lough Erne, contains a very remarkable group of ecclesiastical buildings. The name means Ox Island (Daimhinis) and was probably given because it provided fairly extensive pasture for cattle. The saint with whom the island is chiefly associated is Molaise, who flourished in the 6th century. There is, towards the eastern side of the island, a small chapel or oratory called Molaise's House.

The island is also remarkable for its possession of a complete round tower, the measurements of which are: height 81 ft. 4 ins., circumference at base, 49 ft. 9 ins. Like other erections of this type the tower was probably built in the 9th or 10th century, when the raids of the Norsemen were at their height.

The ruins of St. Molaise's Church, or Teampul Mor, are on the lower ground near Molaise's House. It is a transitional building of the late 12th century. St. Molaise's was a Culdee priory and the parish church of Devenish.

The latest ecclesiastical erection on this island, that known as St. Mary's Abbey, stands on a ridge. It also is simple in its original construction. The church is a plain oblong, without transepts, and divided only into choir and nave. A stone at the entrance to the spiral staircase contains an inscription in Latin to the effect that Matthew O'Dubigan did this work when Bartholomew O'Flannagan was Prior of Devenish, A.D. 1449.

A small sculptured cross 7 ft. 1 in. high stands to the south of the abbey. The crucifixion is represented on its east face, and a man's head is carved on the south. The interlacing patterns with which it is decorated suggest a 16th century date.

By 1607, when Sir John Davies held sessions on Devenish, the whole site was more or less deserted and the abbey in ruins. The island was a frequent place for parleys between warring parties from Ulster and Connaught, as its situation lies between both, and in a position where, during daylight, a surprise would be almost impossible.

Now believed to be a fake - the cross is from the top of the Abbey and was set on top of a ruined preaching stone. → Augustinian order (want to find two "orders" living in conjunction)

Abbey is 12th → 13th century. The tower is not on the top of the island since in such a position it would be visible (to the Vikings) from far up Lough Erne. Then returned in M.V. Endeavour to Enniskillen. Drove up E. side of Lough to Castle Archdale where we found a very nice camping and caravanning park by the Lough

in woodland. Many people boating and water-skiing - we watched them for a while and had tea. Then we drove a short way to the Castle Archdale Forest Park where we first strolled around the old castle which was of little interest since little remains

OLD CASTLE ARCHDALE Map 1—Ref: G 12

On the slope of Castle Hill, near the east shore of Lower Lough Erne: the remains of a T-shaped house and a square bawn stand, built by John Archdale in 1615. The house occupied the full width of the bawn to the north. It consisted of a main oblong block, probably two floors with attics, of which fragments of the east gable and south wall survive. The bawn survives only in the entrance in what was the south curtain wall. A panel above the door bears a Latin inscription stating that John Archdale built the house in 1615, and giving his family motto. John Archdale, who came from Darsham in Suffolk, obtained his grant of land in 1612. Castle Archdale was visited and described by Pynnar in 1618-19. It was captured by Rory Maguire in 1641, but was re-inhabited and finally burnt in 1689.

But the trails down ~~but~~ by the lough were extremely pretty with tiny coves for boats - we strolled around and took some movie film of Ma + Da Kerr with Dana and Kathy. [Small ferry may (?) operate from here to White Island]. Then back to the campground where Sam⁺ played football with the kids while D. + Ma Kerr made dinner. It began to drizzle. Two girls arrived and we helped them set up camp and tent. Sam got cold and K, Dana and I explored the jetties and boats while he recovered. The Kerrs then left for Dungannon and we spent our first night in the Dormobile. Kathy in bunk above me wet her head and the pee dribbled down on my face - terrible. Later I had to go in a milk-bottle - in the words chaos which resulted in Dana and I sleeping in the upper bunks for all following nights.



Yeats grave site

AUGUST 30, 1971 MONDAY.

Up rather early after the chaise of the previous night. The blankets are a hell of a nuisance - wish we had made an effort to borrow more than ^{one} sleeping bag we had. After breakfast we moved off and drove around the north of Lower Lough Erne - over pretty Box Island - to the border and over without any sign of troops or trouble. Stopped briefly at a tourist office in Ballyshannon and then drove through rather uninteresting territory past Bundoran. Our first significant stop was at Creevykeel where beside the main road is a large and impressive full-court cairn.

89. 172 354 Creevykeel Giant's Graves. Large full-court cairn excavated (1935) by Harvard archaeologists who found many Western Neolithic pots, axes etc.

Rather well presented. With the prominent, cliff-sided and flat-topped Benbulbin Mountain on the left we drove on in the sunshine to Drumcliff where we stopped to admire the grave of W.B. Yeats with its striking epitaph composed by Yeats himself:

What a cold eye

On life, on death

Horseman pass by

Also inspected a nearby and very fine old Celtic cross - and a rather poor stump of a Round Tower.

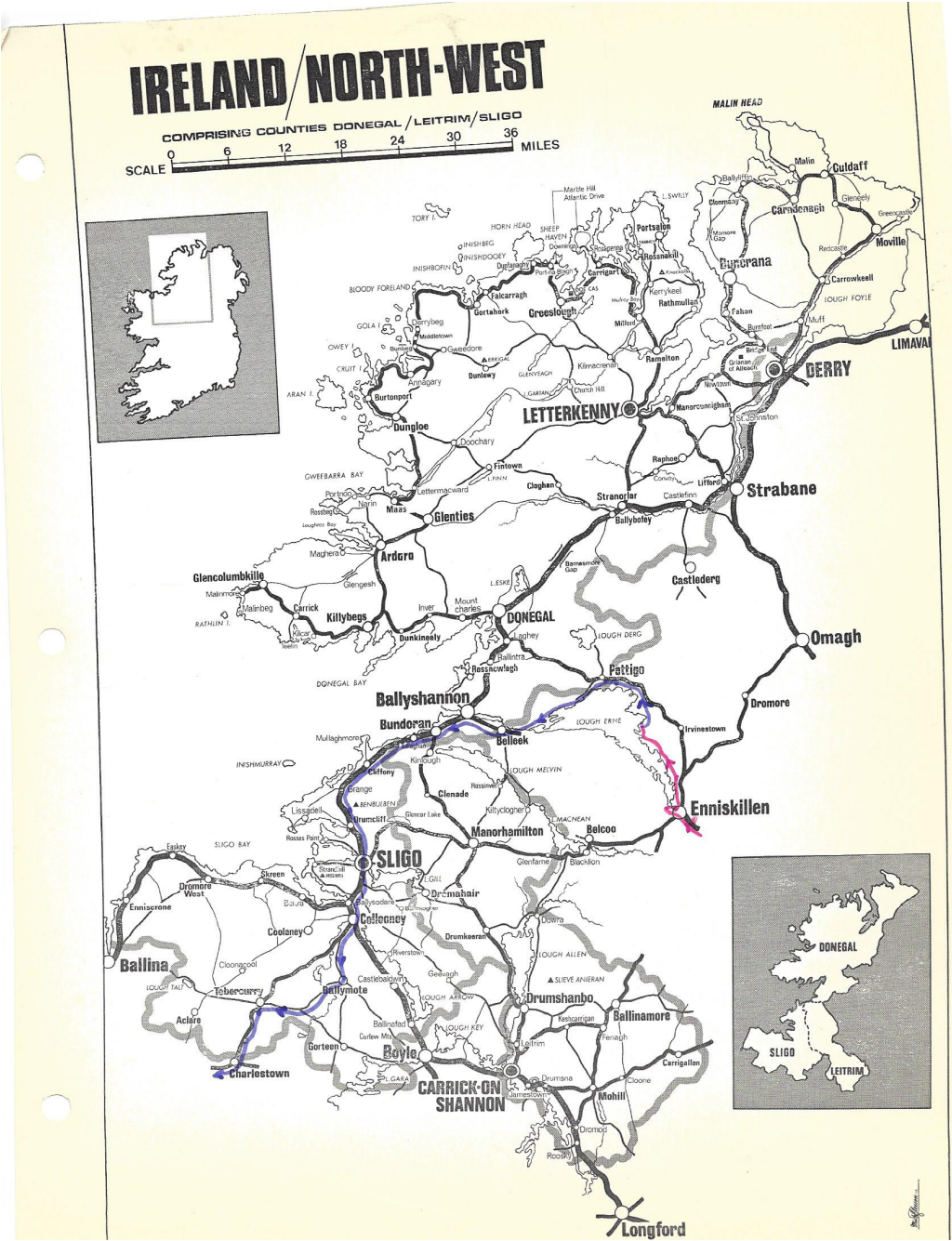
91. 169 341 Drumcliff High Cross and Round Tower. Vestiges of 11th century monastery. In nearby Protestant churchyard is grave of W. B. Yeats.

Drove on past signs to Mr and Mrs's golfing haunt - Rosser Point - to Sligo where we stopped. After a brief stop in the tourist office we had lunch in a fat-smoke filled Wimpy Bar of all places!! Strolled around and shopped before pressing on toward Westport. We made a short detour to pass by Ballymote Castle but on arrival there discovered it had right beside a hospital - it was covered in ivy and clearly not open to the public even though it is quite an impressive ruin.

100. 166 315 Ballymote Castle. Ivy-smothered ruins of massive castle, c. 1300, of Richard de Burgo, Red Earl of Ulster, held successively by Normans, Irish, Royalists, Cromwellians, Jacobites and Williamites.

So we rejoined the main road for Westport and pressed on through Charlestown





and Swinford. Stopped for tea beside a ruined church, graveyard and perfect round tower at Turrough. Then from Catterick to Ballintober Abbey founded in 1216 and recently restored after 230 neglect years. Gray, austere and bleak like the countryside outside - but simple warm, wooden and whitewashed inside. Its long and fascinating is detailed in the enclosed booklet. Its surroundings have altered a great deal since its foundation - originally built in a wooded area by a lakeside - now no woods and no lake! Here we saw beautiful carved wood remains of Celtic crosses in log-cabin and later regretted not buying one. We joined a charter tour to hear the history of the abbey. Finally as evening approached we drove a short way to Westport where after enquiries at the Tourist Office we found the campsite on the flat land which once made up a thriving quay - on a peninsula within a bay - flat but camped on the sheltered side of a wooded head. Very windy but Dana and Kathy played for a long time with a rickety see-saw and swings. We ate, visited the little site-shop where the kids seemed inordinately amused by us - because of my clothes? or our American accents? Then to bed and sleep.

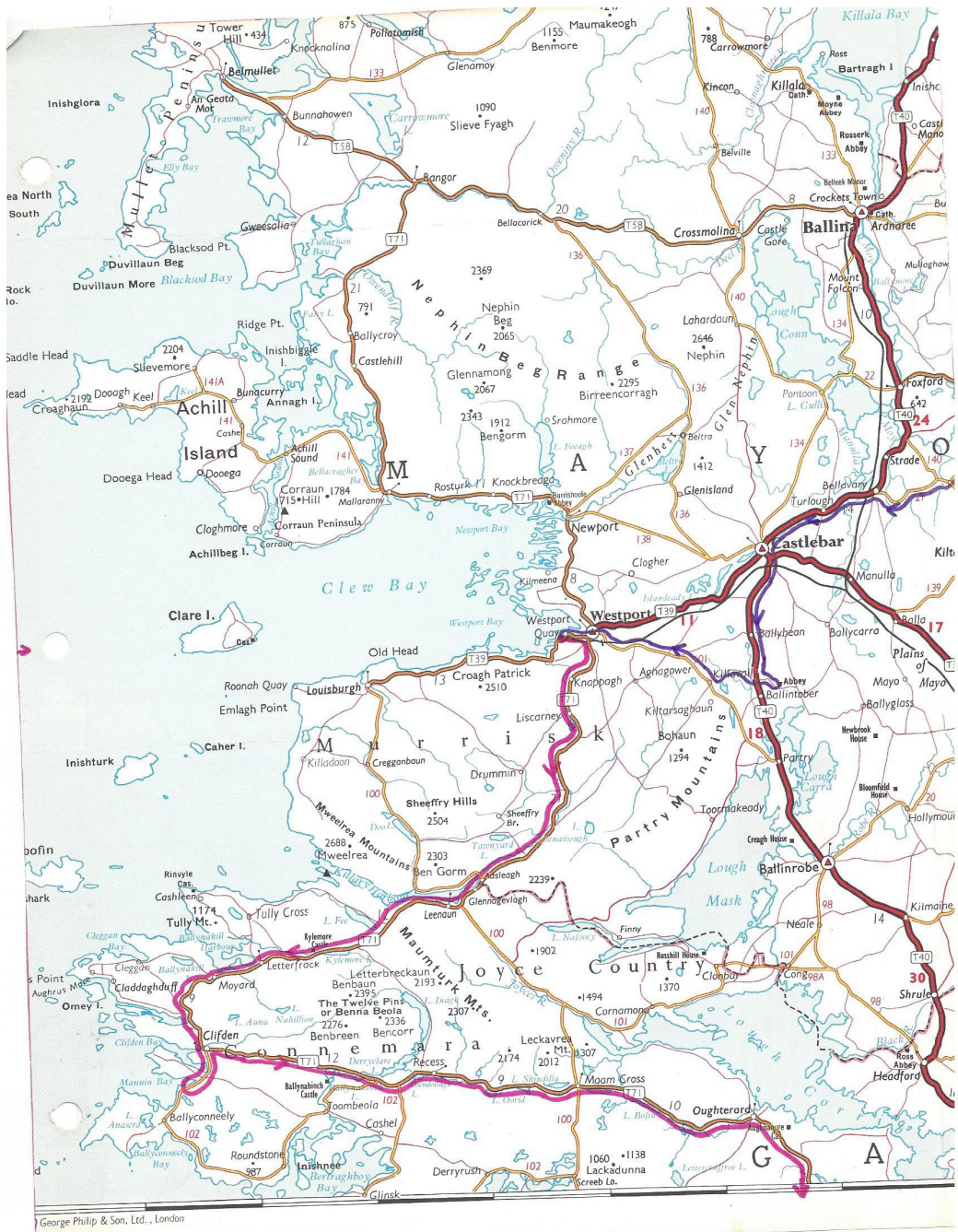


Ballintober Abbey

AUGUST 31, 1971

TUESDAY.

Rose early and drove off toward Comeragh. Rather uninteresting until we dropped down to sea level again to Benbulbin and the long fiord called Killary Harbour. Very twisted road but very pretty in a mysterious way with clouds and mists transporting it back to the ancient times. Climbing again away from the fiord we reached Kylemore Abbey - not an abbey but a large mansion surrounded by woods and at a lakeside - the gift of a 19th century merchant + M.P. Mitchell Henry to his wife - and now a convent. On then to Clifden and out along the road toward Ballyconnelly to the wild spot where St. Arthur Whittier Brown and Captain John Alcock, the first men to fly the Atlantic, landed in a bog. We visited the memorial on a ridge overlooking the bog - wild and windy. In the distance could be seen the flat lands of Slieve Head - where Tom Ward (clerique at Caltich) had told me his folks had come from. On trying to start the van - no response! - started on the hill down thanks goodness after a little push and drove straight to a garage in Clifden. ~~There~~ After a moment the man and his boy discovered a broken electrical lead which would be trivial to fix. Their conversation vacillating back and forth between English and Irish - most amusingly since there were no intonation changes the Irish just sounded like ~~noise~~ nonsense spoken in a wide lounge. Their modus operandi was also most amusing. Two or three discarded wreckers lay on the street outside the one room garage - these were their spare parts department being cannibalized for any spare parts needed for repairs! After much conversation they finally started the trivial repair (with a lead from a wrecked Morris Mini-Minor) but frequently momentarily worked on other jobs. As I waited I looked at the names above the



CALIFORNIA INSTITUTE OF TECHNOLOGY
PASADENA

HYDRODYNAMICS LABORATORY

KARMAN LABORATORY OF
FLUID MECHANICS AND JET PROPULSION

Martin Ward + Mary Mc Donagh

Thomas Gratton Ward
↓

Thomas Minter Ward (me)

#

Martin Ward
County Sligo

[Mc Ward → Isle of Man]

Mary Mc Donagh (various spellings in fact)

Wagga Wagga House
2 story stone on Slyne Head on
the Atlantic Ocean

Nearest villages:

Errislennan + Ballyconnelly
~~Sally~~ Suburbs of Clifden
County Galway

was owned by Mike Mc Donagh
who got it in "first test" of Irish Spruce Co.
who owns now? over

Cattle - Errislennan
Gratton

society?

shops on the High Street - many TOYCE - one Ward (a T.V. shop) which out of curiosity I entered to enquire of a possible connection with Tom Ward - the young lad there said his dad - who was away might know but that he himself had spent much time away in England and so knew few people.

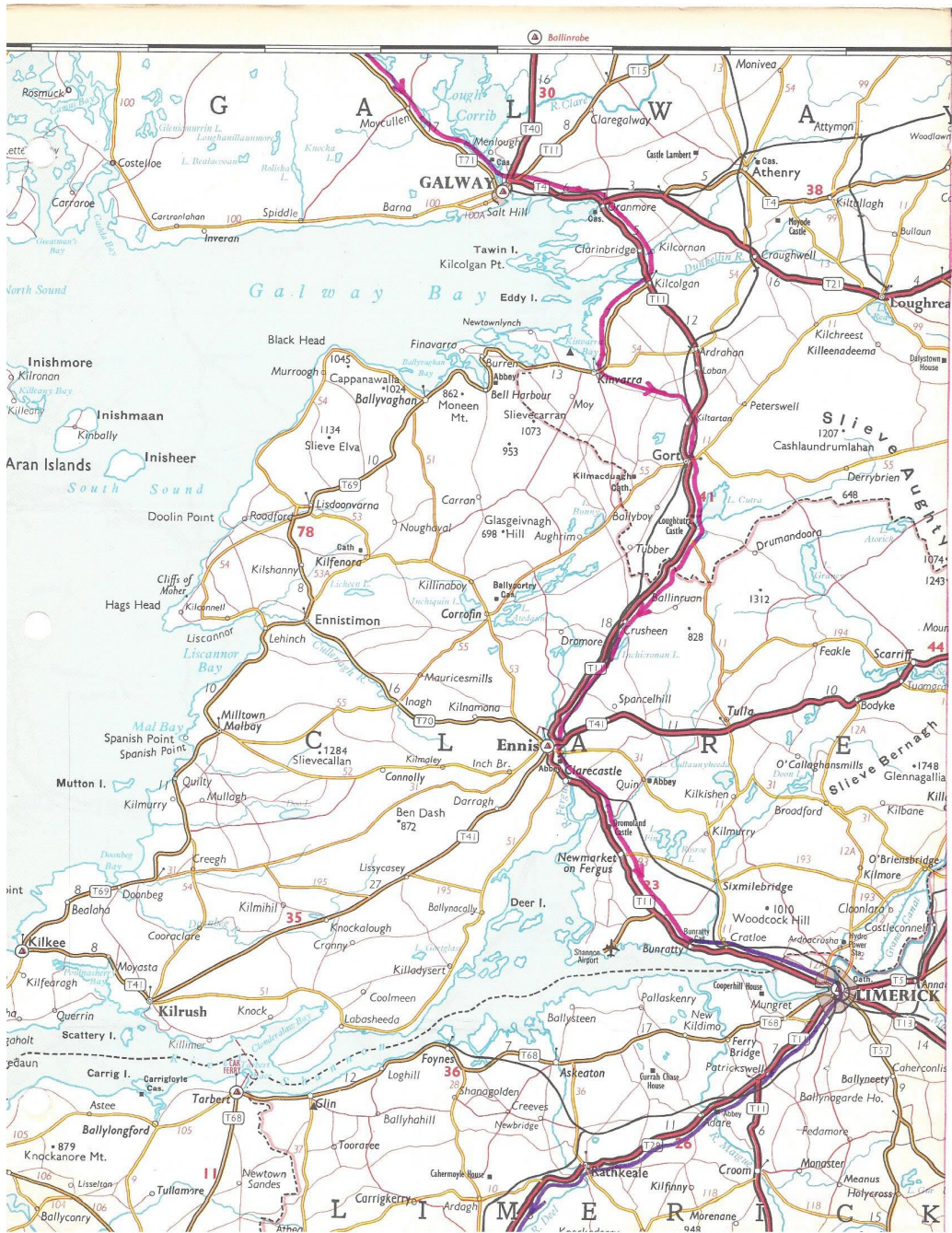
Eventually we pressed on under very cloudy skies through the heart of Connemara - blessedly attractive. Had lunch by a lake of islands (one with castle). Lunched on very fine soda bread bought earlier in Clifden. Then followed the straight road alongside of which ran the ruins of a 19th century railway built by an enterprising entrepreneur from Galway to Clifden convinced that Clifden would become a major port for trans-Atlantic ships. At one stop a group of Connemara ponies in the distance. By Oughterard the country had become ordinary farmland. Bypassing Galway and skirting the bay through a fairly well populated area we left the main road at Kilcolgan and drove to Kinvarra with the purpose of visiting Dun Guaire castle. On a rocky islet near the shore this 16th century castle was locked up and a notice "private property" on the gate. A possessing and complete structure - not ruined it occupies a site which contained castles at least as far back 6th century when it was the fort of King Guaire. Legend says that his Easter dinner took flight and when followed on horseback led to the lonely hermitage of St. Colman about 30 miles away. Today the guidebook indicated that medieval banquets would be held there - but no sign of it from our inquiries. So we pressed on along the fast main road through rather flat country - Gort, Ennis finally arriving at Bunratty Castle near Limerick at about 6 PM in the evening.



Wesport camping



Dun Guaire Castle



We all felt rather out of shape after the long-days driving. Mike had told me of the medieval banquets which are held every evening at Bunratty. So when we got into the entrance shop (knicks-knacks store) I plunged in and bought 4 tickets for the 6pm banquet. In the darkness we walked toward the floodlit castle still in the shadows - but spirits began to rise when we saw the flaming torches and heard the bagpipes welcoming us to the castle. A girl dressed in medieval costume welcomed us into the castle and up the spiral spiral stairs - where at one point another girl proffered us salt and bread - a medieval sign of welcome - then into the magnificent grand hall - decorated with genuine medieval (though a mixture of English, French + German) furniture and artifacts. Glasses of Goblets of mead ~~was~~ were pressed into our hands by the girls and in a short time we were introduced to other customs by Edward, the butler. A grand earl chosen from the guests was inaugurated for the evening and the girls sang some songs to the accompaniment of a harp. As with what was to follow, it was all superbly done. Dinner was announced and we were escorted from the great hall to the main guard hall where the banquets are held - heralded in by trumpets we were placed at the heavy wooden tables in the candlelight. We were close to the high table where the very temporary great earl sat in his throne (attended by wife + kids). Three American girls sat next to us - the girl next to me came from Pasadena! Rose bowls were provided for cleaning your hands because only medieval implements were ~~not~~ provided - that is a knife. Soup was souped. Each of the considerable number of courses was served first to the great earl - and tasted by Edward with great melodrama - between courses we were entertained beautifully by songs + harp by the girls arranged by the fireplace. A large group of the guests (of which there were about 150) were part of a group of French



Bunratty Castle



Bunratty Castle



Bunratty Castle



Bunratty Castle

tourists and, obviously by prearrangement one of them began to misbehave. Brought before the Earl he was ordered to the dungeon (actual). Kathy was most concerned by the noise streams from the dungeon which was down a short spiral staircase off the hall. So Edward took her down to show her that the man was O.K. and it was all in fun. Mead and other medieval wine was served throughout and by the end we were all very tipsy. The evening ended with coffee served in the stables (former) below the guard hall. We talked with the 'Earl' only to discover that his wife came from Pasadena!! Coffee failed to sober us and we finally staggered out into the darkness (about 9 PM) ~~was~~ very merry and tipsy. Climbing into the van in the drizzle we had no idea where to go since there was no campsite within miles. The girl in the reception suggested stopping in the car-park or nearly day-by-day - we struggled to the latter noting the very poor ~~Medieval~~ and modern inn nearby - throwing economy to the wind we decided to splash and drove into and got rooms at the inn - the Shannon Shamrock Inn. It was clearly of American style and indeed of American quality but many of the materials and artifacts (such as the doors) ~~and~~ were traditional Irish. Having showered, settled and cleared up we all went to the lounge and had drinks and biscuits - all very nice and comfortable and serene. The lounge was decorated with very pretty modern tapestries in medieval styles. The kids then went to bed and D. + I. had more drinks in the lounge and talked about many things. Slight unhappiness momentarily when we found Dana in hysterics inside our room - because she discovered us missing and could not open the ~~old~~ latch type catch on the room door (it was very easy but she had never seen one before). Our room has only a matter of yards from where we sat in the lounge so it was rather unfortunate. D. + I. eventually went to bed rather

2.12.02

SEPTEMBER 1, 1971 WEDNESDAY.

We rose rather late and had a large breakfast in the hotel dining room. Having decided to spend some more time visiting Bunratty Castle we packed up and re-entered the grounds of the castle. Guides were waiting at the castle and we were joined by a young girl with a rich Irish accent and a tendency to end every sentence with "... now for you". We visited the guard hall (banquet) and great hall where we had been before. She described all the furniture and artifacts - we all saw the dungeon, its entrance for up, on one wall - and the murder hole at the entrance. Higher up was the lord's bedroom - off this a tiny staircase led up to the children's room - the staircase being too small for an adult as a safety precaution - in the adjacent family room was the single piece of medieval Irish furniture - a table - the rest being fully furnished with medieval artifacts from England, France and Germany. In the family room was a window which looked into the great hall from high on the latter's end wall - the lord often refused to greet his guests except from this window. Finally to the battlements the very high above the ground. This part had to be restored - approx. the top 6-10 ft of the castle. From the battlements there was quite a view of the surrounding countryside - in many directions the

outlying single keeps which could provide advance warning of approaching hostiles could be seen. Kathy has at the time of writing a lasting memory of being at the top of Bunratty.

Behind the castle and within its grounds is an extensive folk park containing genuine cottages of all the old Irish types - fishermen, crofters, farmers, etc. Also a ~~pot~~ working forge which serves the surrounding countryside. Two horses were being shod whilst we watched - the kids were fascinated and we chatted long ~~and~~ while they saw both horses shod. The cottages - and gypsy caravan - were also interesting - and a huge Irish wolfhound - the size of a small pony - wandered around. Eventually we had to leave Bunratty - with very pleasant memories.

Drove straight through Limerick, Adare (almost stopped) to Newcastle West where after shopping we stopped beyond the town for lunch. Then on through Abbeyside and Castle Island toward Killarney. Many gypsy caravans could be seen along the way - some old horse drawn wagons were being used by tourists for whom many services were provided along the way - the genuine gypsy camps were usually contained large modern caravans with beautiful silver - and pewter - ware displayed in the end windows. Finally we reached Killarney whose main street was very crowded - we stopped and I visited the Tourist



office to collect pamphlets and information - especially on ways to visit the Skelligs islands. We then drove south to the entrance to Ben Bulbin Memorial Park a few miles south of Killarney. There we hired a jaunting car after a little bargaining with the driver. The kids were very excited as we mounted the car - Kathy + I on one side, Dana + P. on the other - and the driver covered our legs with rugs despite the bright sunny day. The main lake of Killarney - Lough Leane lay beside the park as we cantered through it to our first stop at Muckross Abbey - actually a Franciscan Friary built in 1448-1470(?) and now roofless and slightly ruined. It was interesting and its white stone very pretty in the sunshine - we roamed around it exploring and ~~was~~ very pretty cloister court somewhat darkened by a large yew tree which has grown in its centre. An exceedingly pretty ruin somewhat blighted by the numerous modern garbs + gravestones scattered within and without the building - an unfortunate Irish practice now discouraged. We then joined our jaunting car again and trotted through the woods by the lakeside to Muckross House, built as the Manor house on the estate in 1843 and now a folk museum.



Killarney

we stopped and visited the house which seemed a ridiculous collection of Victorian
 & junk in a typical large Victorian & mans house. - we soon left and
 rejoined our jaunting car to continue our trip by the lake until the
 path rejoined the road - a short way back toward the start we stopped and
 walked along a path up through the woods to a pretty waterfall - called
 the TORC waterfall. Then back to the entrance to the van. Then we
 drove back toward the south toward the other lakes - up through a
 magnificent forest valley by the famous lakes eventually climbing the
 mountain to look down on it all from Ladies View - very pretty.
 The weather had become cloudy so we drove back to Killamey stopping
 on the way to visit Ross Castle. A very dilapidated ruin - the kids
 asleep so I climbed to the top myself - a nice view of the whole
 top of the castle had not been covered by a thick cloud of fogs
 or bugs - strange. Driving through Killamey we took the road
 west and arrived at a campsite about 6 miles away - a caravan park
 where we stayed for the night. The kids played in the playground
 for a while before & after dinner and the store provided food for dinner. And
 then to bed.

SEPTEMBER 2, 1971. THURSDAY.

Rising early we drove out toward Killorgin intent on doing the Ring of Kerry and if possible taking the trip to Skellig Michael. Fairly nice run to Cahersiveen though not outstanding. Having cashed a cheque we called at the Tourist Office in Cahersiveen. The girl there phoned to find out whether the boat was going to Skellig Michael today or not - unfortunately the sea was too rough to allow landing on this famous rock island with its famous early Christian monastic remains - stone walled cells, etc - the boat was not going - it has to be almost glass like to allow landing. It was a disappointment but we decided to go down to Portmagee anyway - the point of embarkation. Having negotiated the tiny roads to this little fishing port. We talked to the wife of one man who runs a boat to the Skelligs - she said that they had gone quite a few times this summer but that it might be a few weeks before it would be calm enough again. So finally giving up we drove over the tiny roads to Waterville where my mother and father had honeymooned - a typical Irish sea-side resort



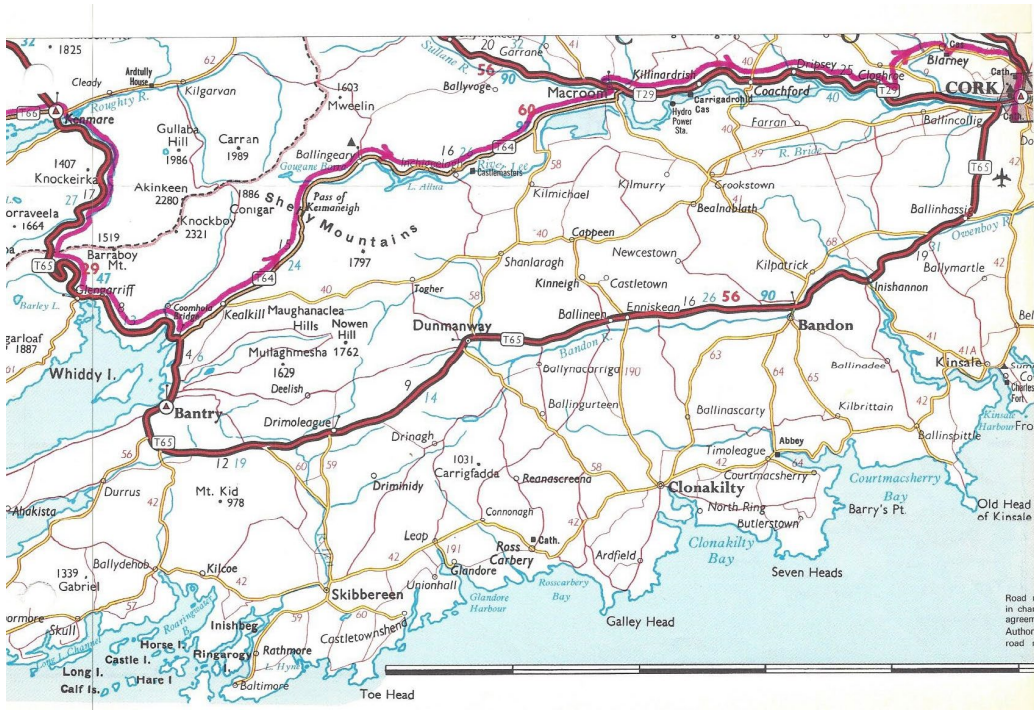
Then drove up a small side road beside Lough Curran and had lunch - very pretty but then the drizzle started and the mists came down. Heading off around the supposedly spectacular part of the Ring of Kerry we saw exactly nothing of it in a dense fog. Passing Caherdaniel where Daniel O'Connell was born we visited Staigue Fort - an ancient Celtic fort very similar to the Crannog of Aileach. The rain was rather miserable so we drove ~~on~~ through what might at sunnier times be pretty seaside country to Kenmare shortly after which we had lunch. Then a considerable climb and a drive along a spectacular ridge from which the view might have been tremendous as was the case with the Glen of Glengariff so we dropped again to sea-level there. Glengariff looked very pretty. Pressing on in the mist and rain we drove a long way inland to Macroom - after a short stop there - watching a horse sale - we drove on toward Cork - and stopped at Blarney Castle. The outside walls of the Castle and its battlements are still intact but the interior is mostly ruined - only one or two lower ceilings are intact the floors above them having been



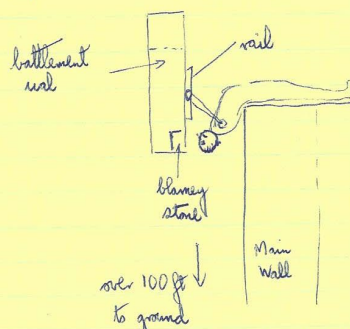
Blarney Castle



Rock of Cashel



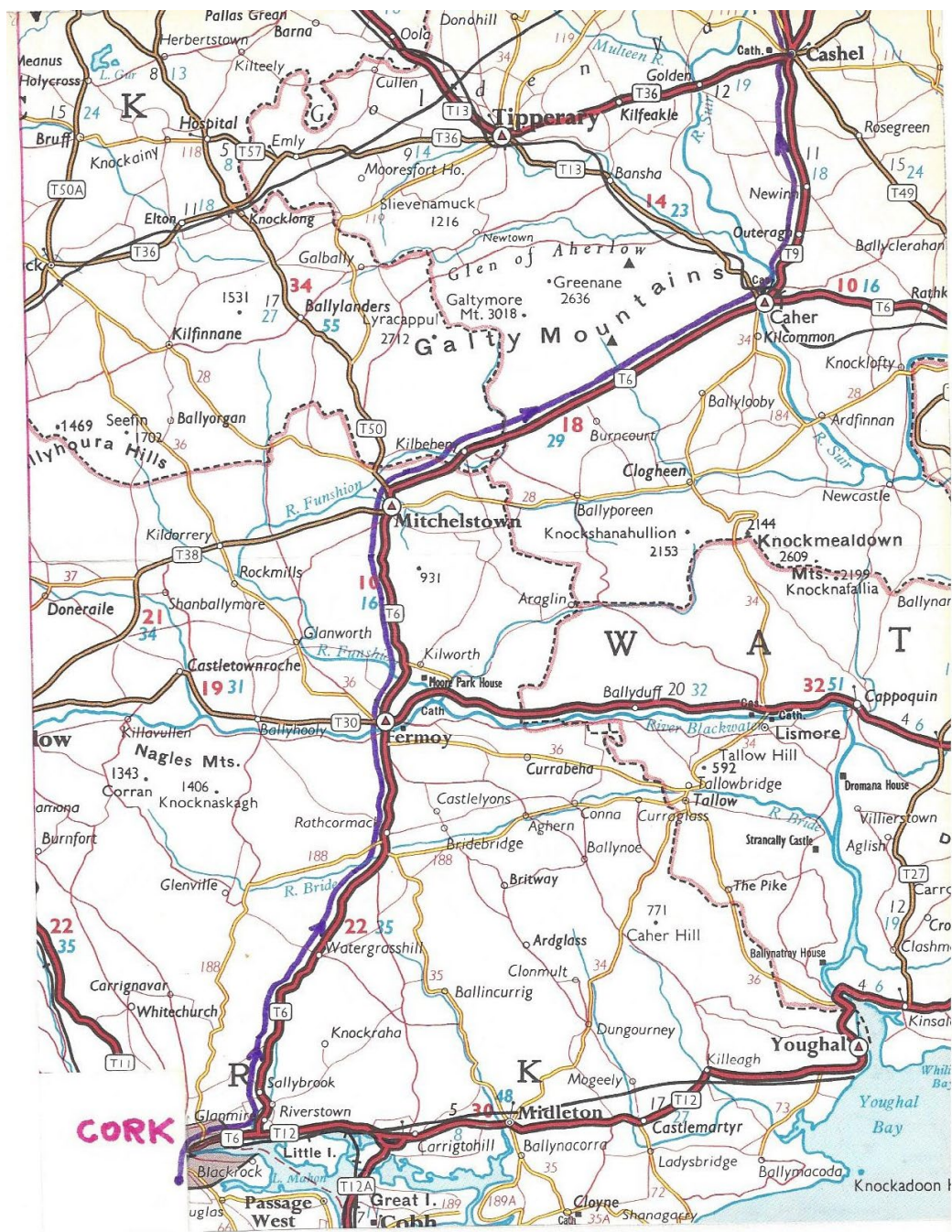
removed. We climbed to the top by the spiral staircases - taking side trips through the small passages to small rooms in the walls. Reaching the top the kids and D. watched while I queued up and with help lent over backwards to kiss the Blamey Stone - for



which I got a certificate. We looked around the castle some more and then left as it was getting late. Drove to Cork and eventually found a rather unpleasant campsite south of the city centre where we spent the night with animosities rising due to the frustrations of the day and the unpleasant surroundings.

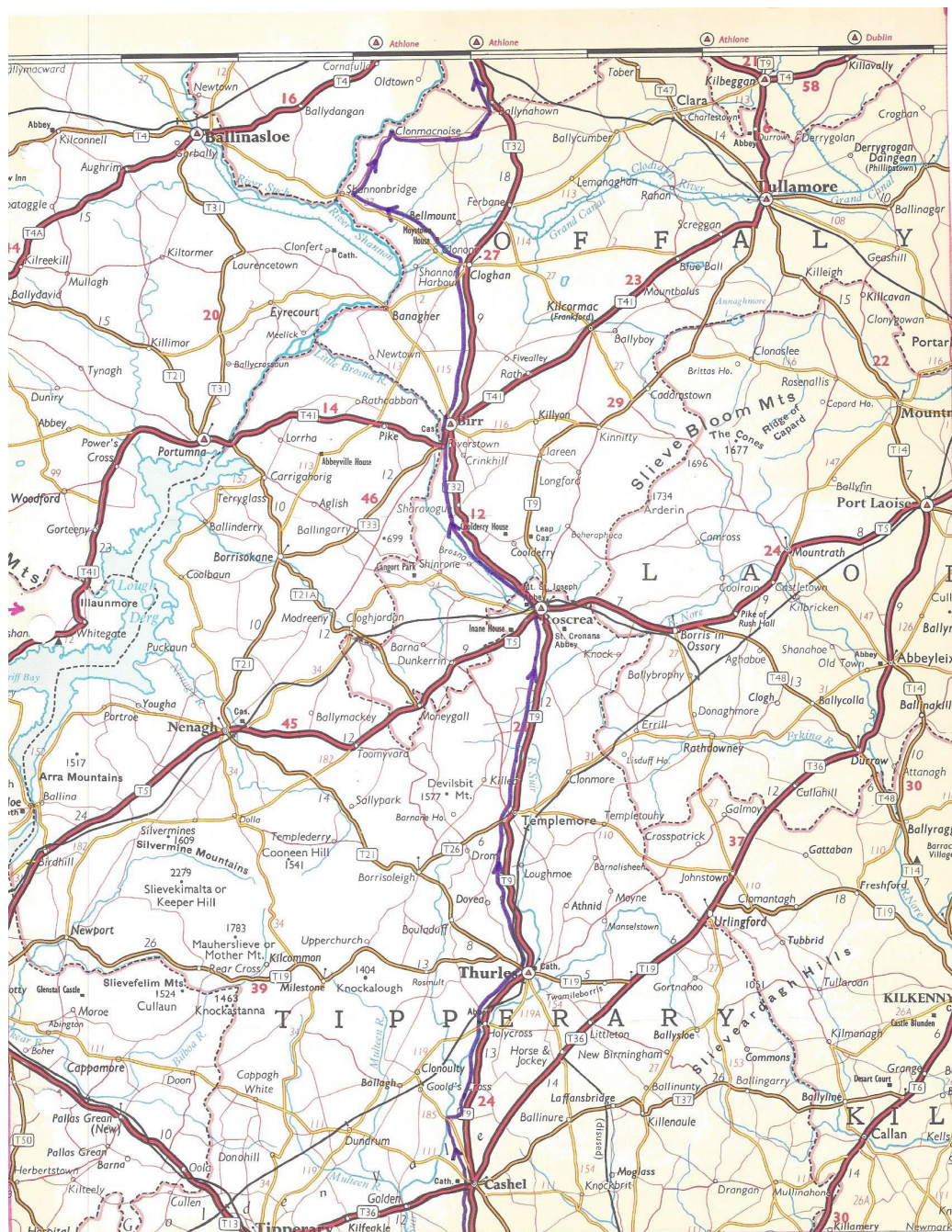
SEPTEMBER 3, 1971. FRIDAY.

Headed off early since we knew we should make a lot of distance. Taking the fast main road from Cork we made good time through the rich, rolling countryside to Fermoy, Mitchelstown, Caher to Cashel. The Rock of Cashel - the ancient seat of the kings of Munster - and an important site throughout recorded history is visible for miles around and stands out dramatically from the surrounding plain. The many buildings on its summit date from many eras. We drove straight to the rock and parked on the steep road up to it - the road that was responsible for the final abandonment of the cathedral on the summit because the bishop of that time could not ride in his coach up the road - though the distance is only of a matter of 100 yards. We toured most of the building - the great cathedral, St. Patrick's Cross - and were especially impressed by the old and very beautiful Cormac's Chapel - its stone roof still in perfect order - a round tower is testament to the hard times in the 9th, 10th centuries when the Vikings were raiding many of the monastic settlements



in Ireland. It was here that Brian Boru was crowned King of Munster and went on to become one of the few men ever to unite Ireland, though only temporarily. Having completed our tour we drove on a short way to Killybegs where the famous old Abbey is being restored in the manner of Ballinacorney. The cloister was completely wrecked and the collected parts are laid out in its centre like a giant jigsaw puzzle. Nearby was a pretty bridge, river and mill-wheel - some attempt being made to preserve the last and its "works". Then lunch by the side of the road. Driving on through Thunders, Roscrea the country became wilder and boggy. North of Birr (I think) huge areas of the surrounding bog had been skimmed and massive machines are being used to cut out the peat and feed it into power stations which now provide a fair proportion of the country's electric power - the bogs which are actually only of the order of 2-3000 years ~~old~~ ^{old} - when ^{the peat is} removed - yield incredibly fertile land - while previously they were initially useless for anything.

A diversion at Boghnan and we eventually reached

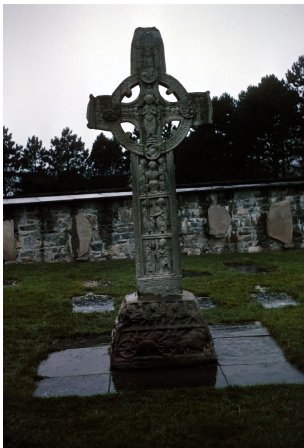


Clonmacnoise. Perhaps the premier ecclesiastical + monastic center in Ireland in the 7th, 8th centuries, Clonmacnoise was badly mauled and looted by the Vikings in the 9th or 10th centuries. Rain again. But I toured the extremely interesting ruins - churches + round towers. Perhaps the most unique and interesting item was a gallery displaying ancient gravestones arranged so as to indicate the development of the Celtic designs and Celtic cross - the mixing of pagan and Christian symbols. The famous Cross of the Scriptures is also remarkable and provides the model or comparison for all Celtic crosses.

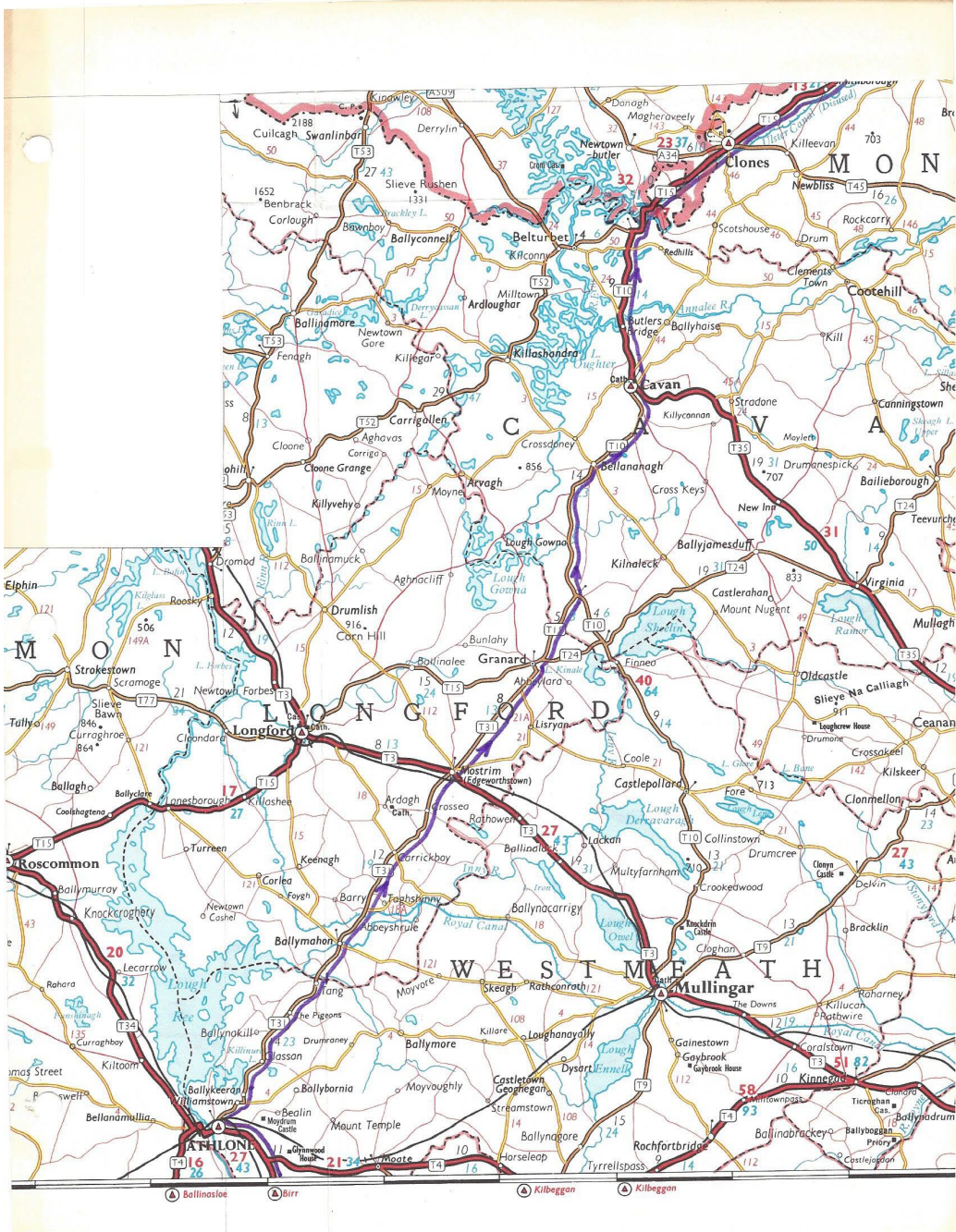
The rain was disappointing and depressing - originally we had intended to drive to camp at Mullingar and do the Boyne rally the next day. But we decided to stuff it and drive back to Dungannon. This we did travelling virtually non-stop through Cavan to the border at Aughnacloy - there having been waded through the Eire customs we passed the point out N. Ireland customs with no-one in sight - slightly perturbing in the dusk. Then to Park Road to a reunion - dinner and bed.



Clonmacnoise



Clonmacnoise



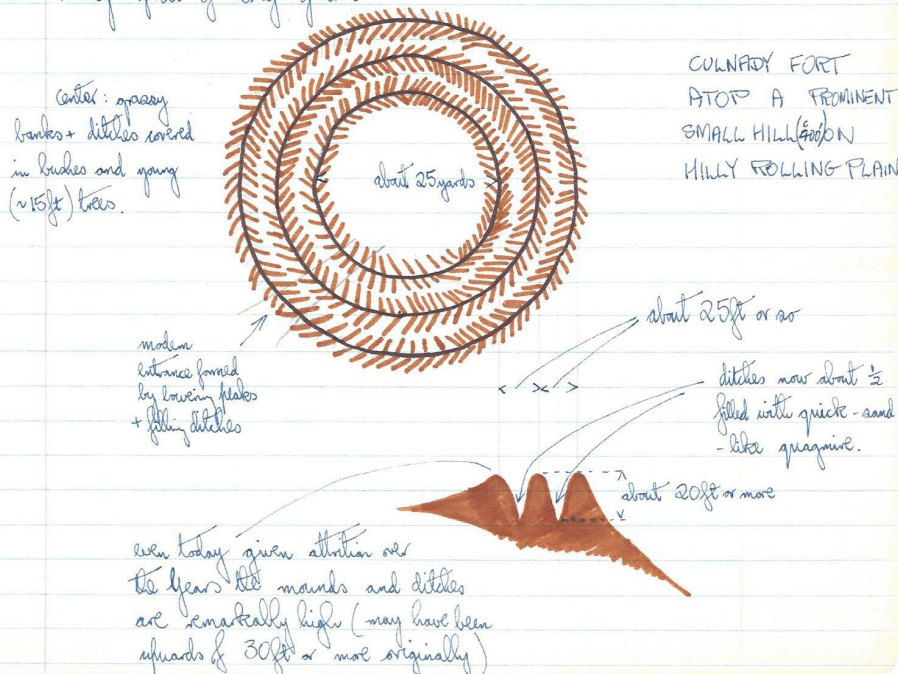
SEPTEMBER 4, 1971.

SATURDAY.

Decided to leave the Boyne Valley until some later visit. So as soon as I got together I drove the van back to Belfast - tragically mislabeled Belfast - and left it back to Clarence Engineering. Then walked to the second hand market Smithfield which seemed unchanged since my youth - full of fascinating junk and bad bargains. Eventually I caught a bus going to Magherafelt from the nearby bus-station - the trip was familiar, the bus familiarly slow and bumpy - but as in the old days they let me off opposite "Conagh Dhu" where on arrival I talked with Ma for sometime and with Dad who was in bed with the flu. Told them all about our trip - Ma thought we had done everything the American tourist would. Then Da arranged for me to borrow the carousel slide projector from the hospital + a super eight movie projector from Brian Flattery - this I did and set up to show some of the slides and films I had brought home from the U.S. Spent most of the evening doing this and then spent the late evening watching Match of the Day (soccer) on the beautiful color T.V. - then to bed in "Conagh Dhu".

SEPTEMBER 5, 1971 SUNDAY.

Drove to Dungannon and returned with D. + kids to "Cavanagh Din" before lunch. Dana had been sick the day before and was ill on the trip again. Lunch. Did some sorting of our junk on the top floor. Then Dad, I, D. and Diane with Kathy drove out to a small place called Culnady beyond Maghera where Dad knew of an overgrown and unknown Celtic earthen fort on a hill. Parked in the yard of a farm - where one of the sons had had a pony cart shaft removed from his shoulder after an accident on a motorcycle (- the shaft went right through). The fort - Culnady - is truly remarkable example of a three ring Celtic fort. Completely overgrown with thorn bushes it has (and still is) used as an enclosure for cattle - the center being full of long grass:



We crawled around this for quite a while - remarkable that no-one has attempted to excavate - the ditches might be drainable (pump water up + flush them out through screens?) - N.B. The ditches ~~are~~ maybe dangerous from a quick-sand-like point of view. Little stone-work evidence (wooden buildings?). Clearing of undergrowth clearly the first job - can't be taken since this undergrowth provides protection from the elements and the roots probably serve to protect bank integrity.

On the way home we briefly visited Maghera Old Church to see the old stone pieces of Celtic Origin - unfortunately difficult to make out since the entrance to the tower of the partially ruined church is barred by iron gates. Finally back to Magherafelt for dinner. Spent the evening showing slides and movies of our U.S. travels.

SEPTEMBER 6, 1971 MONDAY.

A quiet day. Dana better. Did more sorting of our junk on the top floor and gave Colin and Diane as much of our baby things as were useful or presentable. I gathered a few things together for tomorrow's trip to England. In the afternoon we - D, the kids and I - went out for a brief tour of some of my childhood haunts - along the backroads to Ballinderry on the shores of Lough Neagh - then to the mouth of the river Moyola where a maze of tiny lakes had long ago been created by ~~dredging~~ dredging of sand - tiny lakes connected by ribbons of banks + now overgrown by sand-attracted bushes - great times ~~there~~ in the past paddling this maze in a canoe and sand-company dinghies. The Moyola replenished the water in some of these lakes - before the mixamytosis(?) epidemic (circa 1955?) the area was also abundant with rabbits - the kids played around especially on an old barge which had long ago become silted in and is now surrounded by grass. Back for dinner - then took D. and the kids



Cranagh Dhu



Cranagh Dhu



Cranagh Dhu



IRA bomb in Magherafelt



over to Dungannon. Spent the evening showing all our films to the Kerrs. Also picked a pair of shoes from a lot that Ma Kerr kindly borrowed for my inspection. Back to Magherafelt and sleep.

SEPTEMBER 7, 1971. TUESDAY.

Dad took me to the airport and I left on an early plane from Belfast to London. Rented a Vauxhall Viva at Heathrow and set off for Oxford. Stopped in Henley to phone L.C. Woods and arranged to meet him outside Balliol S.C.R. Arrived ~~at~~ there and had lunch and a long talk with her before going to the Engineering Science Dept. Met with Professor Holder who gave me a quick tour of the laboratory. Then I gave ~~two~~ $\frac{1}{2}$ hr talk on tsunamis and micro-organism locomotion. Following this Bill Bailey + Dave Clarke talked with me about cavitation and showed me the still in-operative water tunnel. Alone at last I drove up to our first house at 23, Sandford Road Littlemore. Staring at it, the new owners invited me in to see it - they have done a lot of renovating and it looks well. Finally drove down to Balliol + wandered around there for a while before going to the Taj Mahal to get a meal. Service was so poor I left and finally got a meal at the Indian Restaurant on Walton Street. Then I drove out to the beautiful Trout Inn where I had a beer and phoned D. Finally out to Eynsham to Tony and Sesley Jones's where we spent the evening talking + drinking before getting to bed late.

SEPTEMBER 8, 1971. WEDNESDAY

After breakfast with the Jones's I set off for Cambridge - an awful road - passing very frightening after such an absence from that kind of driving - stopped along the way to talk to Bighill on the phone. Then went to the Dept. of Appl. Math. and Theoretical Physics where I arrived and met John Blake. Had lunch together and spent a good part of the afternoon talking and looking at films. Finally I left for London - inadvertently leaving my briefcase in the parking lot when I left. In London, I thought that I had sufficient time to visit our old home in Appleton, Shepperton. This I did very briefly before driving over to Heddington to the home of Alice and Helen Silverhal. Had a very pleasant evening talk and dinner. Finally left for the airport. Discovered the missing briefcase

as soon as I prepared to vacate the Viva. - thought for a while that it must have been stolen. Finally, exhausted, I flew home to Belfast. Troops rush out to guard the taxi-ing airplane. Dad + I were searched as we left the airport. Home and bed.

SEPTEMBER 9, 1971. THURSDAY.

~~Back~~ Up and phoned around - to Cambridge - in order to locate my briefcase which I finally did. Then to Dungannon where D. and I went shopping for shoes. Then at lunchtime we tearfully bid farewell to the ~~folks~~ folks in Dungannon and got to Belfast before lunch. An old friend of Dad's, Jim Rice, arrived and talked + talked ad nauseam. Finally, Dad + I left and he took me on a tour of the hospital's new surgical wing and geriatric units. Very impressive with much new fangled equipment. In the evening Arthur, Maere and Vivienne Arnold visited with us and we talked and I showed some slides - especially those of the American Indian.

SEPTEMBER 10, 1971. FRIDAY

Rushed over to Corkstown early in the morning and visited Malachi Davis who made out a will for me. Then back to Magherafelt and went down to my old school - Fainny Endowed school, Magherafelt. Went to Todd's office where he and Doc were in animated conversation. Nice to talk again with them - they were pleased that I should have dropped by. Then to the Staff Room where Arthur Arnold met me and having said hello to many old friends - Arthur showed me around the new wing of the school. Talked with old masters - Wilfred Young, Johnston (George), Jimmy Smith. Then returned to office and walked over to meet Jimmy Mac-Ateer - long talk - of hard times - his son - etc. Then back to lunch. As lunch was in progress someone glanced out of the car window to see the sky above the village filled with smoke. The I.R.A. had fire-bombed two of the stores in the village - one successfully. Dad and I went up to view the damage - the place was swarming with firemen, police + soldiers. Cuddy's Clothes Store was a roaring fire - the whole block threatened. Conversations with acquaintances in the crowd said an old woman was seen acting suspiciously - from out of town. Generally believed that the stores were chosen because they belonged to the two most forward-looking business men in the town - but both completely apolitical - surprising they didn't choose the well-known Orange Order leaders stores - just within a very short distance of the ~~burning~~ burning. The atrocities - new to this peaceful and relatively well integrated town failed if their intention was to arouse the feelings of the local population to any kind of danger level.

Later Dad, Diane, D. the kids and I went out in the car and visited an old mill by the Moyla river -> then the new road being built ~~it~~ over the Sperrin mountains

- replacing the old twisted road over the Glenshane Pass - impressed by the very interesting picnic areas along the road by the mountain stream. Then on the way home we passed by the bridges over the Moyola river where we used to canoe as kids - thrilled then by the small waterfalls we successfully (usually!) negotiated. Back to "Cranagh Delu." Then J. and I left for Belfast to have dinner with Michael and Lesley. Most enjoyable evening - mostly dragging up old memories with Mike + Les of times past. Their very pretty daughter Natasha seems most easy-going. Mike has completely re-decorated their house and it ~~is~~ is very pleasant. We bid them farewell again and took the same round-about route home to avoid the trouble spots in Belfast. Still saw a great many soldiers - and was stopped once - most frightening. Home to bed.

SEPTEMBER 11, 1971. SATURDAY.

Aunt Irene arrived and we much enjoyed talking with her of old and new times — of her traumatic time as a private secretary to Boris Duke in N. Carolina and the encounter with Miss Duke's gigolos which forced her to leave.

Then Paula, Dana, Kathy and I drove down to Antrim to visit Shane's Castle and the Narrow Gauge Railway (recently built). The old engine, beautifully restored by an adoring engineer, winds its way through the woods by the lake shore (Lough Neagh) to Shane's Castle. A lovely trip. The kids really enjoyed the return trip with a short visit to the rather uninteresting castle (though I recall ~~exp~~ exploring the labyrinthine passages under it in my youth — one of which is supposed to venture far under the lough). Back to Cranagh Dhu for lunch — took some movies around "Cranagh Dhu".

Spent most of the afternoon packing and talking with Ma + Irene. After dinner Dad, Kathy + I in the Mercedes and Colin, Diane, D + Dana in the Morris went out for a short drive — first up to the top of Slieve Gullion on a small road (now tarmaced — I recall climbing it when it was gravel) — one of the highest mountains in the Sperrins commanding a fine view of the plains around Lough Neagh on which M'fella sits. Then down again and visited the beautiful Camdairny Glen where we played + camped as kids (bluebells!) There the Morris refused to start and we had to tow it back to Cranagh Dhu. — then Dad and Colin spent some time fixing the earth to the battery — the cause of the problem. Final conversations with all — a sense of impending parting among all.

SEPTEMBER 12, 1971 SUNDAY

Up very early and after tearful farewells from Ma, Colin and Dad took us to the airport - said goodbye to the old and so we took off on a B.E.A. flight to Manchester - delayed for a short time since no aircraft are kept at Belfast overnight and have to be flown in for the early morning flights. At Manchester we were met by Michael + Jacqui Mills and we set off for a longish drive to their home in the small village of Southwell just outside Nottingham. Through built up area until about Chapel en le Frith - then a very attractive drive over the Yorkshire Moors - rolling hills ribboned by Stone Walls - not too much in the way of trees except in the upward + downward valleys. Finally down into Chesterfield and Mansfield (- with a strange - buckled church steeple - presumably quite old: 'twisted + bent



Then to Southwell and to Jacqui + Mike's home. After lunch we went for a swim in the local pool - struck again by the excessive amount of chlorine they put in pools in the U.K. - so didn't stay too long. Then visited the park where we lay around in the sunshine - then visited nearby Southwell Cathedral - a Norman edifice dating back to the 13th century - rather unattractive on the outside - but extremely interesting



Southwell



Southwell

within - outside games dating back but not early than 15th Cent.
Then back to the house for dinner - spent the evening talking
of the past + future. Then to bed.

SEPTEMBER

SEPTEMBER 13, 1971. MONDAY.

Up well before then - and quickly Mike left me to Newark railway station where I caught the 7.44 → changed to local train at Peterborough → Ely → changed to express for London. This stopped in Cambridge and I had arranged for John Blake to be on the platform with my baggage - this exchange was only just accomplished and I continued on the same express to Kings Cross in London. I lugged the large + heaviest suitcase across to Victoria + checked them in the left luggage - then to Waterloo and caught a train to Feltham - strange to be back on the old routes - reminded of the depression of London suburbs - the depressing atmosphere of sterility. Lunched in a Wimpy bar in Feltham before going over to my old place of work, Ship Division, N.P.W., Feltham. Met by George Gadd - talked for some time and walked around looking at new prospects - meeting old friends over coffee. At 4.00 - I gave my seminar on waves which went down well. After work George took me to his home for dinner - had decided to get to London early - so George very kindly took me to Baden Powell House, Scout Headquarters where I was able to get a very cheap room. Resting awhile, I phoned D. in Southwell to make arrangements and my folks in M'felft to say farewell again. Then took a short trip in to Piccadilly and to the Cockney Tavern for a beer before returning and going to bed.

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SEPTEMBER 13, 1971. MONDAY.

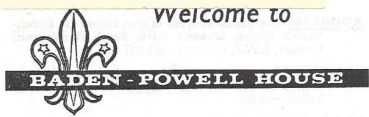
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B. & B. Accommodation	Other Meals	Room Hire	Car Park Misc.	TOTAL
<u>£1.35</u>				<u>£1.35</u>

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PLEASE READ FOLLOWING PAGES CAREFULLY

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SEPTEMBER 14, 1971. TUESDAY.

Up early and breakfasted in Baden-Powell House. Then off to the U.S. Embassy in Gloucester Square ~~and~~ because of a last minute decision that maybe I should get my visa transferred from my old to my new passport. Thanks goodness this was accomplished by about 10.00 AM - then I rushed to St Pancras. D + the kids had caught the 7.50 AM from Nottingham which arrived in St. Pancras at 9.48 AM. I had almost promised to be on the station to meet them - but I wasn't due to passport business. D. was a little upset but no harm done. We went straight to Victoria - collected our luggage and caught the train to Gatwick Airport. There we hung around by the check-in desk and were soon joined by Art and Marty. Finally checked in but told there would be a 5 hour (?) delay - had some lunch in the airport - then we were all called to board a group of buses which would take us to a place in the country for lunch and to pass the time before departure. Thus we all went to Slaughtam Manor in Handcross, 10 miles from Gatwick, - nice country - we were given lunch - pretty old manor house - then Art, I and the kids went for a long walk around a nearby lake and woods - quite pretty. Finally the coaches left -> back to Gatwick - some more waiting - drinks in the custom or duty-free area. Finally what seemed an unending stream of people boarded the stretched DC-8 for the trip back to L.A. Took off about 7.00 PM - flight as boring as always - landed in Bangor, Maine

when it was 11.00pm - all baggage taken off - through
~~out~~ passport control (glad I had fixed up the passports) - rather
 tired + surly inspectors - through customs without a
 single baggage check - we must ~~long~~ look honest.
 Art + Marty left us at Bangor intending to visit
 Marty + Art's folks on the way back to the W. Coast.
 Then off again - very tired - arrived at L.A. International
 at 3.00 AM in the morning - quite apart from the delays
 and the formalities in Bangor, the flying time had been
 2 hours longer than going eastwards. Awful how
 to arrive in L.A. - no other alternative but to splash
 \$20 on a taxi to Pasadena - we had already been
 awake for 30 hours and in no mood to mess
 around. Finally home in a drunken state - glad
 to be back. Bed - unsettled sleep.

[Back to table of contents](#)

Last updated 7/30/99.
 Christopher E. Brennan

TRAVELS NOW AND THEN

© Christopher Earls Brennan

SAN FRANCISCO 1971

Dec.31, 1971

Drove to San Luis Obispo

NEW YEAR TRIP TO THE BAY AREA

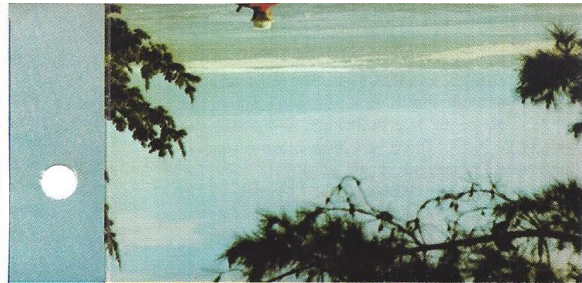
1971 Dec. 30th Set out about midday via the Ventura freeway - drove straight through to San Luis Obispo where we ate in a Harold Johnsons and went to a Sands motel - spent evening ~~at~~ watching basketball - first the Lakers and then U.C.L.A. - great in color.

Dec. 31st Drove on along 101 to San Lucas where we inquired about visiting the Pinnacles Natl. Monument. - but this is closed in winter - drove on past Scheduling Prison - through the wine country - stopped at the pleasant San Martin winery - then ~~on~~ on, lunch \rightarrow Art + Marty Whitney in Mountain view beside Palo Alto where Art now works for Lockheed - spent the afternoon talking - Art took me for a drive through Stanford where we visited the Chapel and ~~he~~ walked around the center of the campus. Then drove through the industrial estate where Lockheed is situated. Then about 6.00 we left for Jackson and Gudrun's house in Los Gatos. The kids were very pleased to see Susan and Gigena - that evening ~~the~~ the Bangers had their New Year's party with lots of Germans most of whom got drunk. D + I. tired and we went to bed before the party ended.

1972 Jan 1st Up late and had a long lazy breakfast. Then we all set off in two cars - drove up to the peninsula mountain ridge (35) - very pretty - wooded - rolling meadows - views over the Bay and San Francisco. Then ~~on~~ ^{took a car ride + walked in downtown - back} into San Francisco where we parked below Ghiairelli ^{for} ~~the~~ ^{handicapped} ~~the~~ square and had a lunch (hot chocolate) there. Then D. + kids + I drove up and over Golden Gate bridge to viewpoint on the other side. Then back as the sun set and drove to Telegraph Hill - beautiful view over City, harbour, ships + bridges! Back to Los Gatos - spent very pleasant evening talking - watched some of the Bangers movies.

Jan 2nd Up fairly early - and left for home after goodbyes. [101] to Gilroy - then crossed over along the ~~to~~ quite pretty [152] to [99] in the San Joaquin Valley. ~~On~~ ^{On} through Fresno + Bakersfield. Dark. Big jam-up near diversion in San Fernando due to the earthquake damaged freeways. Unfortunately car began to stall - and clutch overheated because of this - managed to get through after changing the plugs - home tired.



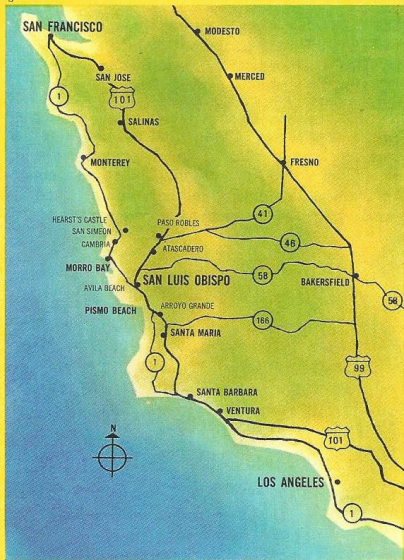


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THE COAST IS CLEAR!

SAN LUIS OBISPO



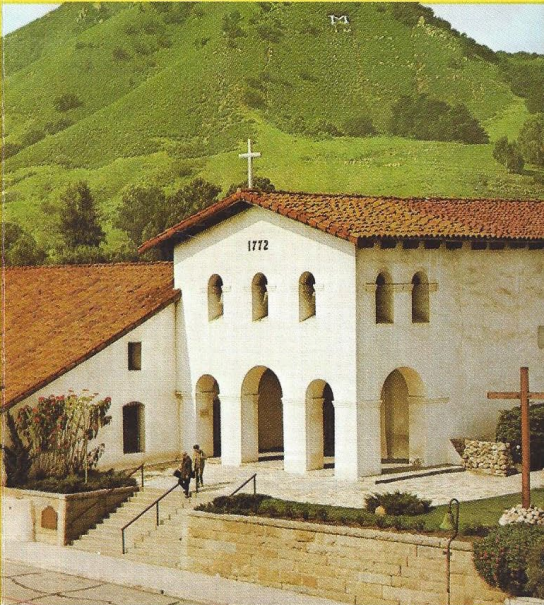
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| 1. | SYL
A
Syl
COM
HO | | |
| | A
fro
COM | San Martin | |
| | | Welcome To Our Tasting | |
| 3. | HO
A
Eng | You are invited to participate in one of f | |
| | | it enjoyable as well as educational. The | |
| | | finest grown in our own vineyards. Win | |
| 4. | PIN
Th
Ch | | TAST |
| | | * San Martin, | |
| 5. | CH
A
gtr
COM | Monterey Fisherman's Wharf No. 2—Mon | |
| | | 400 Lincoln Ave.—San Jose, Cal | |
| 6. | MA | | |
| | | A fragrant, fruity, rare wine made from the Malvasia grape. | |
| | | COMMENTS: | |
| 7. | | MOUNTAIN WHITE WINE | 1.45 |
| | | Velvety to the palate. | |
| | | COMMENTS: | |
| 8. | | RHINE WINE | 1.70 |
| | | Highlights bland, mild cuisine. | |
| | | COMMENTS: | |
| 9. | | CHENIN BLANC | 1.90 |
| | | Soft, fruity; not too dry. | |
| | | COMMENTS: | |

Rose' Wines

*Rose' wines should always be served chilled.
The perfect wine with all foods.*

- | | |
|---|------|
| 10. GRENACHE ROSE' | 1.70 |
| Made from Mountain Grown Grenache grapes. | |
| COMMENTS: _____ | |
| 11. MOUNTAIN VIN ROSE | 1.45 |
| Versatile and delicious, even over ice | |
| COMMENTS: _____ | |

Red Wines

Best when served at room temperatures or slightly chilled. Serve with all red meats, roasts, game, cheese, Italian dishes (spaghetti and meat balls).

- | | | FIFTY
2.50 |
|-----|--|---------------|
| 12. | CABERNET SAUVIGNON
Soft rare wine made from the exotic
Cabernet Sauvignon grape.
COMMENTS: | 2.50 |
| 13. | PINOT NOIR
Made from the royal Burgundy grape—
the Pinot Noir.
COMMENTS: | 2.50 |
| 14. | BURGUNDY
Dry and smooth—a mark of quality.
COMMENTS: | 1.70 |
| 15. | ZINFANDEL
Unique with a taste allure all its own.
COMMENTS: | 1.90 |
| 16. | CHIANTI
Sunny Old Italy at its bottled best.
COMMENTS: | 1.70 |
| 17. | HOSTESS BURGUNDY
Dry with a touch of mellowness.
COMMENTS: | 1.90 |
| 18. | CABERNET RUBY
Close kin of the exquisite Cabernet
Sauvignon—yet an individual flavor.
COMMENTS: | 1.90 |
| 19. | MOUNTAIN RED WINE
Robust and hearty.
COMMENTS: | 1.45 |
| 20. | GAMAY BEAUJOLAIS
Rare varietal made from the Gamay
Beaujolais grape.
COMMENTS: | 2.50 |
| 21. | GRIGNOLINO
Light bodied—
COMMENTS: | 1.90 |

Amount of each wine is limited to 1/2 oz. to achieve fullest appreciation of wines tasted.

Proper tasting technique: merely moisten tongue with the wine; savor to capture full appreciation and then slowly sip the balance with particular attention being paid to bouquet, flavor, body and general character.

You need not taste every wine offered by the sommelier (wine server). Merely cover the glass with your hand as he approaches and he will not serve you that particular wine.

Time permitting, the sommelier will offer special request wines immediately after the regular Tasting Program.

The sommelier invites pertinent questions during the course of the program. If he cannot or does not have time to answer your question the floor manager is always available.

—Happy Wine Tasting

10% DISCOUNT IN
CASE QUANTITIES —
Assorted or Individual.

PRICES SUBJECT
TO CHANGE
WITHOUT NOTICE

- | | | |
|------------------------------|--|------|
| 28. | CHAMPAGNE—DEMI SEC | 4.75 |
| COMMENTS: | | |
| 29. | PINK CHAMPAGNE | 4.75 |
| COMMENTS: | | |
| 30. | CHAMPAGNE ROUGE | 4.75 |
| COMMENTS: | | |
| 31. | MAISON MARTINEAU
EXTRA DRY—PINK—ROUGE—COLD DUCK | 3.25 |
| COMMENTS: | | |
| Champagne Specialties | | |
| 32. | COLD DUCK CHAMPAGNE | 3.79 |
| COMMENTS: | | |
| 33. | GRAN SPUMANTE MALVASIA
Made from the traditional Italian
method. A favorite. | 3.79 |
| COMMENTS: | | |
| 34. | CHAM-BERRY— <i>Sparkling Blackberry</i> | 3.79 |
| COMMENTS: | | |
| 35. | SPARKLING APRIVETTE— <i>Apricot</i> | 3.79 |
| COMMENTS: | | |
| 36. | SPARKLING FRAISETTE— <i>Strawberry</i> | 3.79 |
| COMMENTS: | | |

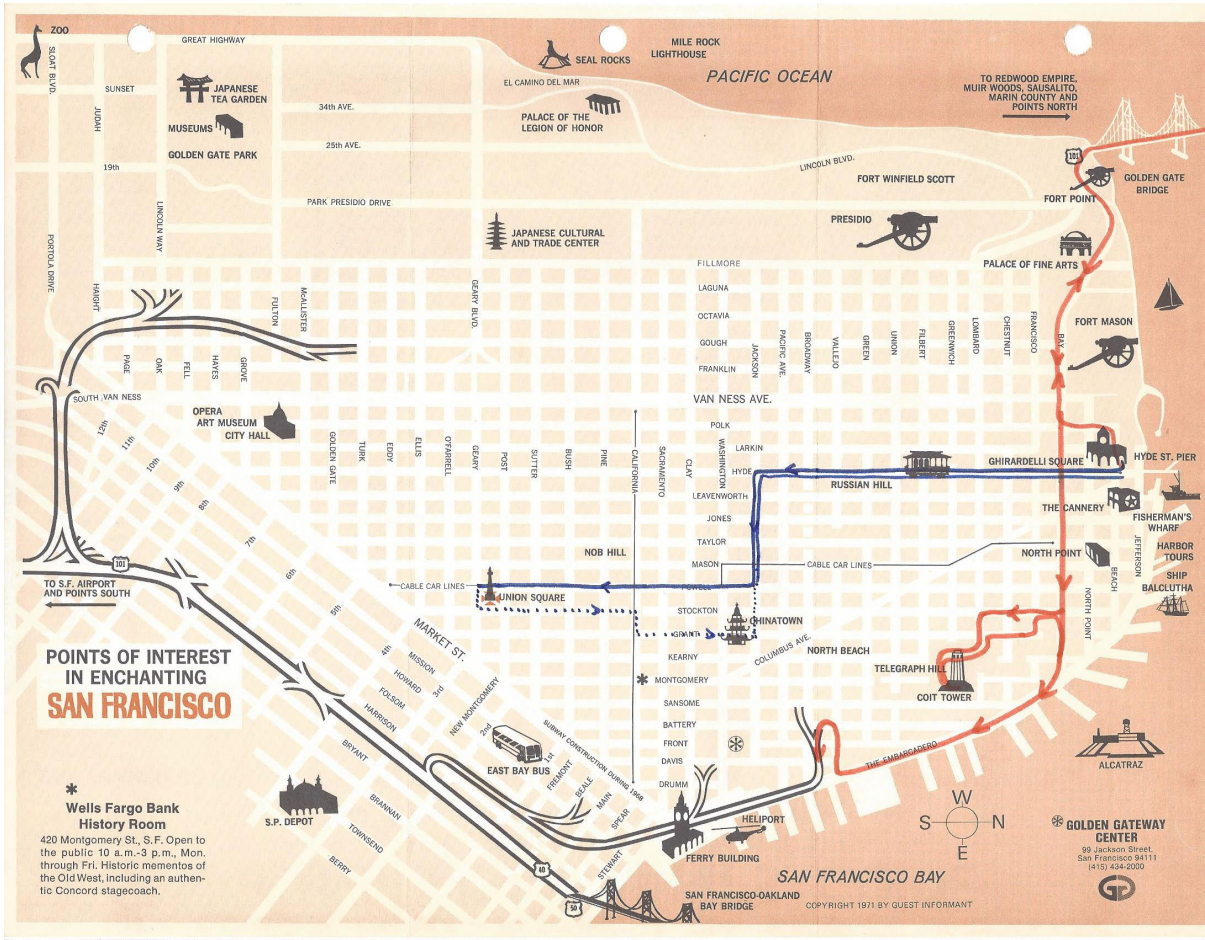
Fruit and Berry Wines

Our premium fruit and berry wines are produced only from fresh fruits and berries. Serve chilled or over ice.

- | FIFTH | |
|---|------|
| 37. BLACKBERRY (<i>Real Blackberry</i>) | 1.75 |
| COMMENTS: _____ | |
| 38. LOGANBERRY (<i>Real Loganberry</i>) | 1.75 |
| COMMENTS: _____ | |
| 39. STRAWBERRY (<i>Real Strawberry</i>) | 1.75 |
| COMMENTS: _____ | |
| 40. RASPBERRY (<i>Real Raspberry</i>) | 2.00 |
| COMMENTS: _____ | |
| 41. CHERRY (<i>Real Cherry Wine</i>) | 1.75 |
| COMMENTS: _____ | |
| 42. APRIVETTE (<i>Real Apricot Wine</i>) | 2.00 |
| COMMENTS: _____ | |
| 43. PEARLETTE (<i>Real Pear Wine</i>) | 2.00 |
| COMMENTS: _____ | |
| 44. SUM-PLUM (<i>Real Plum Wine</i>) | 2.00 |
| COMMENTS: _____ | |
| 45. APPLE WINE (<i>Lightly lingering</i>) | 2.00 |
| COMMENTS: _____ | |

Specialties

- | | | | | | | | | | | | | |
|------------------|--|------------------|------|-------------------|----|-------------------|------|------|------|------|-------|--|
| 46. | MOKKA LAU | 2.30 | | | | | | | | | | |
| | A delightful coffee flavored beverage. | | | | | | | | | | | |
| | COMMENTS: | | | | | | | | | | | |
| 47. | VERMOUTHS — <i>SWEET and DRY</i> | 1.30 | | | | | | | | | | |
| | COMMENTS: | | | | | | | | | | | |
| 48. | SAN MARTIN BRANDY | | | | | | | | | | | |
| | Excellent quality. | | | | | | | | | | | |
| | <table border="0"> <tr> <td>$\frac{1}{2}$ Pt</td> <td>Pt</td> <td>5th</td> <td>Qt</td> <td>$\frac{1}{2}$ Gal</td> </tr> <tr> <td>1.55</td> <td>2.98</td> <td>4.95</td> <td>5.95</td> <td>11.50</td> </tr> </table> | $\frac{1}{2}$ Pt | Pt | 5th | Qt | $\frac{1}{2}$ Gal | 1.55 | 2.98 | 4.95 | 5.95 | 11.50 | |
| $\frac{1}{2}$ Pt | Pt | 5th | Qt | $\frac{1}{2}$ Gal | | | | | | | | |
| 1.55 | 2.98 | 4.95 | 5.95 | 11.50 | | | | | | | | |



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Last updated 7/30/99.
Christopher E. Brennan

CALIFORNIA INSTITUTE OF TECHNOLOGY

PASADENA, CALIFORNIA 91109

OFFICE OF THE PRESIDENT

December 1, 1971

Dr. Christopher Brennen
1915 Las Lunas Street
Pasadena, California 91107

Dear Dr. Brennen:

I take pleasure in notifying you officially that the Executive Committee of the Board of Trustees, at its meeting on November 30, 1971, reappointed you Research Fellow in Engineering Science for one year, effective January 1, 1972, with an increase in salary to \$13,000 per annum. This action was taken upon the recommendation of the Division of Engineering and Applied Science and with the approval of the Provost and the President.

It is our understanding that you have applied for immigrant status in the United States. This reappointment, therefore, is contingent upon your being granted a permanent visa by the Immigration and Naturalization Service.

For our records, will you kindly indicate your acceptance of this reappointment on the enclosed copy of this letter and return it to the Faculty Office.

Very truly yours,



Harold Brown
President

cc: Provost
F. H. Clauser



Please address any reply to
THE DIRECTOR
and quote:
Your reference:

Dept of Trade and Industry
~~Ministry of Technology~~
NATIONAL PHYSICAL LABORATORY

TEDDINGTON, Middlesex

Telex: 262344 Telegrams: Bushylab, Teddington, Telex

Telephone: TEDDINGTON Lock 3222, ext.

Central Photographic Sect.

16th April 71

Dear Chris

Thank you very much for remembering the illustrations. I only received your letter yesterday as we still appear to be suffering the aftermath of the postal strike.

I'm having a spell of duty back at NPL Teddington at the moment. Ship divisions work became rather slack, so I asked for the move back, now I'm too busy again doing most of the photography for all the divisions.

There have been a couple of changes recently. No 3 carriage has had a major re-fit and a lot more electronics and Mr Silverleaf has just been appointed Director of Road Research Lab. I cannot see much connection between cars and ships but great minds tick on

I trust you are enjoying
your work in California, perhaps
one day we shall see you
back at NPL

Yours,

David Penicell

Dear Sirs,

I recently returned from summer vacation to find your letter (as well as those of Dr. McCann and Prof. Holder) awaiting me.

It was very kind of you to let me know of these ^{opportunities} and indeed I ^{have been} debating with myself and others for a number of days over the Hartford opportunity. However other factors also emerged during ~~this~~ my leave ^{which} I should first mention.

Earlier in the year during conversations with Ralph Cooper ~~that~~ of the Fluid Mechanics division of the Office of Naval Research and Dr. Jack Haft of the Naval Ordnance Laboratory here in Pasadena I mentioned ~~the~~ the difficulties with my visa status ~~and they had~~ and that it meant a definite end to my ~~at~~ residence in the U.S.A. at the

conclusion of 1971. They offered to investigate the situation and ~~under~~ I ~~State~~ following the recommendation of the Dept. of Defense ^{a special waiver from the Dept. of} discovered on my return that I had been granted ^a leave to obtain ^{which would allow} a more permanent visa. As a consequence and virtually simultaneously Caltech offered me a substantial elevation in my

position and salary. ~~to that of Senior Research Fellow.~~

had
I discussed
~~After much~~
~~They are~~

~~issued self debate~~
~~however familiar with the outline of our correspondence~~
my ~~the~~ position openly with a number of ~~Dr~~ Professors Wu, Eberhart
and Costa and they ~~were~~ fully aware of my ambition, to
return to Oxford in an established post some time in the not too

distant future. ~~I~~ ^{have virtually} ~~therefore~~ decided to accept this elevated
position at Caltech ~~since~~ ^{though since it ~~will~~ ^{can} not take effect for a month or two no absolute} ~~it was~~ clearly understood that I will
decision has been made ~~I have therefore~~
not committed myself to any definite time. I felt that the Hertford

post whilst attractive might ~~over~~ require 48 months to
~~written to Dr. McCrum thanking him for writing to~~
~~me and~~ ^{this} I have an

reservation about ~~my~~ ^{this} decision, in that I realize that I might
have been in a better position to ~~accept~~ challenge for an
established post in Oxford if I were on the spot. You may have
had this in mind. ~~and~~ I found it difficult to assess its importance.
Indeed I would appreciate any thoughts you might have on my position.

I again thank you for your efforts on my
behalf. I have written to Dr McCrum thanking him for
writing to me

L. C. WOODS

Professor of Mathematics (Theory of Plasma)

Telephone 0092 54295

Mathematical Institute

24-29 St Giles

Oxford OX1 3LB

Dr. Christopher Brennen,
California Institute of Technology,
Pasadena
California 91109
USA

16th June, 1971

Dear Chris,

Dr. McCrumb has told me about the opening at Hertford College - it may suit you very well indeed as a stop-gap. I have also written to Alex Silverleaf proposing a three year grant to the Engineering Laboratory to provide support for you. If the second scheme comes off then, if Alistair is in agreement, you could undertake teaching for Balliol in Engineering Science until such time as a permanent appointment to a Fellowship/Lectureship could be arranged. The difficulty is that now-a-days Fellowships and Lectureships are supposed to be filled simultaneously and until a Lectureship becomes available to Balliol in Engineering Science we cannot really fill the vacant Fellowship.

Whatever happens on this second scheme I should point out that the College will want to advertise this Fellowship in Engineering Science in the normal way and you could not be sure of obtaining the post although, of course, you would be a very strong candidate.

The first scheme, namely a temporary Fellowship at Hertford, has much to recommend it for it will offer you the same period of time in which to secure a permanent post without the complications of grants and so on, but it would mean that you would need to stay in the Hertford post for a period of 18 months or longer.

So you see, there are two "irons in the fire" for you even though the posts are temporary. I do hope something will come of these plans for I would like to see you back in Oxford.

With regards to your wife,

Yours sincerely,

Chris

Dr. Christopher Brennen,
Hydrodynamics Laboratory,

P.S. I would appreciate an up-to-date copy of your
Curriculum Vitae.

Pasadena,
California 91109,
U.S.A.

cc. Dr. N. Tanner



UNIVERSITY OF OXFORD

DEPARTMENT OF ENGINEERING SCIENCE

PARKS ROAD · OXFORD · TELEPHONE · 59988

From: N. G. McCrum, M.A., D.Phil.

NGMcC/CHC

15th June, 1971

Dr. Christopher Brennen,
Karman Laboratory of Fluid Mechanics and Jet Propulsion,
California Institute of Technology,
Pasadena, California 91109, USA.

Dear Dr. Brennen,

Professor Holder has given me your letter to him of 8th June and has suggested that I send you the advertisement for the C.E.G.B. Research Fellowship at Hertford College. The closing date for applications has now passed but there can be no doubt that, if you wish to apply, the committee will have time to consider your case. In order to expedite matters you should, if you wish to apply, ask one of your referees at Caltech to send a reference to The Acting Principal, Hertford College, Oxford. I presume that your other referee would be Professor Woods, with whom we can communicate quite easily.

You will note that the fellowship includes a stipend as an official fellow of the college, which will necessitate tutorial teaching up to six hours per week in full term. There are no University teaching commitments, unless of course you wished to present lectures on some particular topic.

If you wish to apply, will you write formally to the Acting Principal and send him your curriculum vitae together with a description of the kind of work you would wish to undertake if you were successful in your application.

If I can be of any further assistance please do not hesitate to let me know.

Yours sincerely,

NG McCrum.

PS. I would add I am the tutorial fellow at Hertford. If you wish to apply you should reply by return of post, if possible.

Dear Mr. Brunson, You may see My eldest daughter, Dana, is between the first and second grades in Jefferson.

In the past week or so it has become apparent that I

shall have to travel to Europe on business in about two weeks.

My family and I

and with ~~myself~~ Dana and our younger daughter Katharine we ~~was~~ decided to take advantage of this, to travel in Europe and visit

relatives and friends. This would however mean that Dana would

not be returning to Jefferson until the 15th or 16th September.

I hope that there is no difficulty about this and that she will be able to enroll at that time, about two weeks late. It will

of course be a wonderful opportunity and experience for her.

Incidentally, it may not be possible but I am very keen to place our younger daughter, Katharine, in kindergarden next year. She will however only be four and a half years old. ~~I feel~~ I feel that she is ready for kindergarden and would like, if possible, to take a moment of your time upon my return to discuss the possibilities with you. I would be delighted if ~~some~~ by some means it was possible for her to attend Jefferson

Dear George,

Ben, the family and I have in past weeks or so arranged to ~~go~~ visit the U.K. and Ireland on vacation. We have on a charter flight ~~leaving~~ departing the 17th August and returning four weeks later on the 14th Sept. We will probably spend the first three weeks or so in Ireland, seeing ~~the~~ ~~with our families and~~ ~~touring Ireland.~~ ^{to spend the last few days or so visiting} Then I propose ~~to visit~~ ^{to visit} ~~with~~ ^{old friends} and places in Southern England. Tentatively I would like to ~~go to~~ ^{if the go} visit Oxford, Cambridge and N.P.H. ~~to~~ ^{now} So I write to you ^{to} explore the ~~other~~ ^{possibility} ~~if it were amenable~~ possibility of visiting Ship Division, a prospect I look forward to. I would suggest, further that (subject to approval) I might give a short seminar during my visit on one of my recent topics of research: (i) Viscosity free & surface flow solutions which employ the Lagrangian description of the Motion (this was the subject of my talk to the 8th O.N.R. Symp. on Naval Hydrodynamics which Neil attended.) or (ii) The swimming of ciliated micro-organisms (for which I have some interesting film). I suspect

that (i) is of ~~greater~~ wider interest to Ship Division but would
appreciate your opinion.

^{A mutually agreeable date}
~~The date of~~ The date of my visit

might be best arranged by phone from Ireland ~~since~~ ^{perhaps} shortly
following ~~the~~ my arrival there. This would still leave about 3
weeks for any necessary arrangements to be made.

There ^{have been} ~~are~~ a number a developments recently in my
personal plans ~~what~~ with ~~what~~ over which we might talk
when we meet again.

I hope that this request will not inconvenience
you in any way and that you will let me know your thoughts,

Yours,

Chris

GEG/MJK



Department of Trade and Industry
NATIONAL PHYSICAL LABORATORY

SHIP DIVISION

Faggs Road, FELTHAM, Middlesex

Telex: 263118

Telegrams: Physics, Teddington, Telex

Telephone: 01-890 5891, ext.

Please address any reply to

THE SUPERINTENDENT

and quote: SH 47/01

Your reference:

13th January, 1971

Dear Chris,

... Just in case you are still finding difficulty in finding a suitable job back in England, I enclose a copy of a letter from Professor Eggers in Hamburg to "Ned" (sic) Hogben, in which you see he is trawling for research fellow type staff. Obviously you could fill the bill nicely, but I imagine you are anxious to return to this country, so you probably won't be interested.

All the best for the New Year,

Yours,

George

George Gadd.

Dr. C. Brennen,
Engineering Science Department,
California Institute of Technology,
Pasadena,
California 91109,
U.S.A.

... Encl.

BALLIOL COLLEGE,
OXFORD,
ENGLAND.

8th July, 1971.

Dr. C. Brennen,
Karman Laboratory of Fluid Mechanics
and Jet Propulsion,
California Institute of Technology,
Pasadena, California, 91109,
U.S.A.

Dear Christopher,

I am sorry to be so long in answering your letter of 8th June, which I was very glad to get. Let me assure you immediately that, far from thinking you presumptive, I am very glad to know of your interest; in fact, Les Woods usually keeps me quite well informed.

The position about a Tutorship in Engineering in Balliol is that the College is now awaiting a suitable joint appointment. It is very hard to say when this will come up, but I certainly hope that it will happen in the next couple of years. When it does, it will, of course, be advertised and I would certainly hope that you would be a candidate. Between us, Les and I would make sure that you were aware of the advertisement. All this is naturally quite independent of any plan that Les may have to bring you to Oxford on some other, and perhaps temporary, basis.

For the present, I hope that all goes well with you; you certainly seem to be producing excellent work which I am sure will stand you in good stead.

With all good wishes,

Yours sincerely,

Alastair Howatson

A.M. Howatson.

Dear Les,
Shortly following my last letter to you, ~~our~~ plans for visiting the U.K. have become more definite. We travel by charter flight (with its ~~accompanying~~ leave Los Angeles on the 17th August, (much sooner than we had previously planned) ~~and~~ ^{returning to L.A. on} we leave the U.K. ~~again~~ ^{the} on the 14th Sept. This must be qualified by the usual uncertainty involved in charter flights. ^{My} ~~Our~~ tentative

and developing plans include possible visits to Oxford, Cambridge and London at the end or toward the end of this visit. I have written to Prof. Holder suggesting that, as a part of a visit to Oxford, I might ~~a would~~ could give a seminar on one of my recent research topics. Perhaps (i) Unsteady free surface flows; solutions employing the Lagrangian or (ii)

Since our plans are still developing it is rather more difficult to suggest a ~~mutually agreeable date~~ ^{a date} is more difficult to arrange — this might be best done by telephone from Ireland immediately following my arrival there since that would still leave three weeks for any necessary arrangements to be made. Perhaps you could let me know your preference, close but prior to the 14th Sept.

Dear Alec,

~~My dear Alec~~ I meant to write to you before now to let you know how ~~things~~ ^{my} prospects were progressing, but they were in such a state of uncertainty it was difficult to know what to write. The position, at least in the ~~short~~ short term is now somewhat clearer. Allan Acosta, ^{who} ~~told~~, who incidentally ~~is~~ incidentally has been very kind to me from the beginning, told me of your conversations with him and I have been thinking very seriously of your ~~own~~ suggestions. More of this in a moment.

First, I ought to tell you that ~~the department~~ through the good offices of Ralph Coker, ^(another very good friend) and the Office of Naval Research, ~~the~~ the Dept. of Defence persuaded the Dept. of State to alter my visa so that I should not have to leave this country by the end of ~~this~~ 1971. Shortly afterwards, Caltech suggested that I might stay, at least for a time, in a more devoted position than my present one. At the same time I had been having correspondence with Les Woods in Oxford over the possibility that I might apply for the old job which he held prior to his Professorship. It now transpires that this will not become available for perhaps another year. and I myself feel that to move at this stage, I would. It is preferable to me to an established position.

my own feeling at the moment that ~~if~~ if I am going to move it should be to an established position.

Therefore I decided to give myself except the Caltech offer so that, at the very least, I will give myself further breathing and thinking room.

However as I have mentioned to you before, Doreen and I are very keen to return to the U.K. in the fairly near future.

One result of all this is that Doreen and I decided that we ~~return had~~ would about 10 days ago that we ~~would spend our~~ ^{would return to} ~~now~~ Ireland and England for four weeks ~~partly~~ ^{primarily} to see and visit our families ~~and partly so that I could visit with friends in England.~~ but also so that I could visit with friends and ~~squads~~ ^{and colleagues} in England.

The opportunity of travelling on ~~as~~ a charter flight ~~was suggested~~ ^{circumstances} on 17th Aug presented itself

A sequence of fortunate ~~breaks~~ ^{circumstances}, enabled us to get on a charter flight which leaves on the 17th August and returns four weeks later on the 14th Sept. I intend to spend the final four or five days visiting in Southern England ^{giving seminars} ~~and~~ ^{and} I would be very pleased if the opportunity arose for me to have an informal chat with you. ~~But~~ ~~Perhaps~~ Perhaps I could telephone you shortly after we arrive in England to ~~see the house~~

to see how the
to make any possible arrangements.

^{would} I ~~look~~ forward very much to
seeing and talking with you,

Dear Phetair,

My thanks for your kind letter and remarks. There have been some recent developments in my situation and I thought I might briefly outline them to you. First the Department of Defence (Office of Naval Research) persuaded the Dept. of State to allow me to alter my visa to one which would permit me to stay ~~somewhat~~ in the U.S. beyond the conclusion of this year. ~~By~~ Simultaneously, Caltech offered me a substantial ^{situation} ~~visa~~ improvement in my position. I had discussed my ^{situation} ~~position~~ openly with Professors Wu, Fieser and Acosta and they were fully aware of ~~my~~ the possible offerings in Oxford and of my determination and enthusiasm to return there if I ^{I should win a suitable} ~~should~~ ~~(win)~~ ~~offer~~ an established post. Thus I have virtually decided to remain here ~~for the~~ ^{for a year or so} in this elevated position, since it was clearly understood that I would be seeking such a post in Oxford and, ^{if successful,} would be free to accept it. ~~However~~ I ~~do~~ ~~however~~ Both my family and I do ~~however~~ look forward very much to returning to Oxford.

I am, at the moment, in the midst of trying to make all the arrangements for a visit to the U.K. - to conferences, arranged seminars ^{next month} and family visits - ~~in the next few months~~ sometime in the ~~next few~~ ^{or two} months.

If I am successful, we intend to visit Oxford and would look forward very much to meeting you again.

Again my ~~that~~ thanks for your help and consideration,

Yours sincerely,

Christoph Brenner

Dear Professor Holder,

Thanks, apologies.

Part of the reason for my delay has been that I have been busily attempting to arrange a visit to the U.K. for my family and myself, primarily so that we could visit our families in N. Ireland but also so that I could visit with old friends and colleagues in England. This has ~~not~~ now been finalized ~~at~~ and we leave ^{on a charter flight} on the 17th Aug (much sooner than originally planned) returning four weeks later on the 14th Sept. ~~at~~ We intend to spend the first three weeks in Ireland and the last four or five days travelling in Southern England. I intend to visit Oxford a few days prior to the 14th Sept and would very much like to spend some time in the Engineering Lab and perhaps talk to you if at all possible. If it were convenient and agreeable I would be willing, indeed would like, to give a seminar in the Laboratory on one of my recent research topics. I would suggest either (i) Unsteady free surface flows; solution employing the Lagrangian description of the flow ^{Biophysical Hydrodynamics of} or (ii) the swimming of ciliated micro-organisms. Indeed I could give both ~~if time and~~ both ~~if it you~~

felt it appropriate and of sufficient interest. It is more difficult to arrange a mutually suitable date, and since time to our departure is close, it would perhaps be best if I telephoned you shortly after my arrival in Ireland to see whether this would be possible. This would leave 3 weeks or so for any arrangements to be made.

There have been some recent developments in my situation, with which I would like to discuss with you. Briefly, through the good offices of Ralph Coper and the Office of Naval Research, the Dept of Defense persuaded the Dept. of State to ~~alter~~ waive certain restrictions so as to allow me to alter my visa and remain in this country beyond the end of 1971. Simultaneously Caltech has offered me a substantial deviation in my position here. They ~~are~~ have been, however, fully aware of my possible prospects in Oxford and of my desire and ambition to return there. Indeed their offer was made on the understanding that I would be free to apply for, and if successful accept, a position or established post in Oxford. All of this I would ~~not~~ welcome your thoughts and comments on all of this ~~when~~ if I could visit with you



UNIVERSITY OF OXFORD

DEPARTMENT OF ENGINEERING SCIENCE

PARKS ROAD · OXFORD OX1 3PJ

Telephone: Oxford (0865) 56120 or Oxford 59988 extension 463

Professor of Engineering Science: D. W. HOLDER, F.R.S.

DWH/CHC

15th June, 1971

Dr. Christopher Brennen,
Karman Laboratory of Fluid Mechanics and Jet Propulsion,
California Institute of Technology,
Pasadena, California 91109, U.S.A.

Dear Brennen,

It was kind of you to write to me on the 8th instant. At present the only vacancy here is the C.E.G.B. Research Fellowship at Hertford College, and I have asked Dr. McCrum to send you details. The relevance of the proposed field of research to the interests of the C.E.G.B. is important in this appointment, and I am not sure how appropriate your ideas would be. You may, however, see some obvious connection and, if so, you should mention this if you apply for the post.

The University has agreed that the department should expand by about 50% in the coming (1972-77) quinquennium and is seeking funds for the additional posts that would be needed. We shall, however, not know until the end of 1972 whether these can be provided. It is, of course, always possible that a vacancy will arise because somebody resigns, and I shall let you know if this happens. Alternatively, it may be possible to arrange a research grant which would provide your stipend for a few years during which time we would hope that an established post would become available. It would be helpful to know whether this possibility interests you so that I may seek funds.

I am sorry that I cannot be more definite at this stage, and I shall be delighted if matters can be arranged so that you can join us.

With best wishes,

Yours sincerely,

D. W. Holder