

2003

- Jan ~~L. B.~~ to Baltimore
Feb C → Houston
Feb. → Mexico (+ Canaan)
Mar. C → Japan
Mar C+D → London, Prague
Apr. Hike w. J. Earls + Matsumoto
Apr. 19 Hike on Santa Cruz. w. J. Waters
Apr. 26/27 Sheep Canyon hike
May Bridge ~~Canyon~~ Mountain?
May Womit Comet
June 14 Serpe Gorge hike
June North Wash Canyons.
July 4 Hike w. Matsumoto
July 10/12 Zion with John + Angela Earls
Oct. Fleetwood Mac.
Oct. C → WPI

// Not died

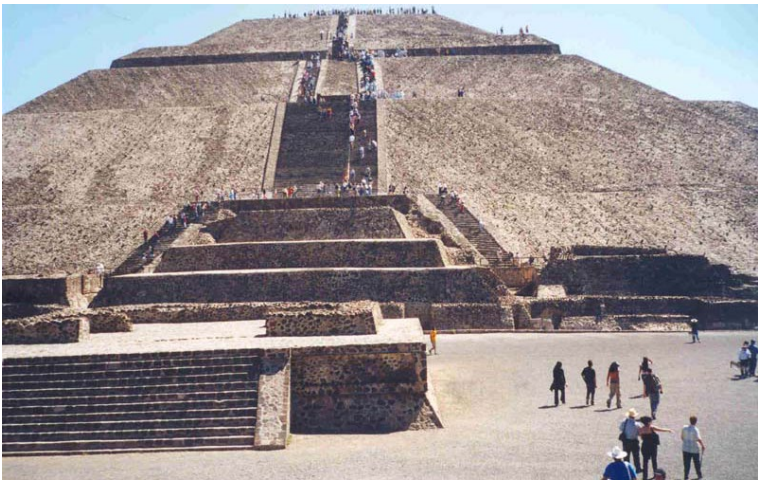
TRAVELS NOW AND THEN

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MEXICO 2003

SAT. FEB 8	Fly to MEX	
SUN. FEB.9	Pyramids	
MON FEB.10	Conference	
TUES. FEB. 11	Conference	
WED. FEB.12	Fly to Cancun - drive to Chichen Itza Sun + Luncheon	Stay in Chichen Itza
THURS. FEB.13	Chichen Itza - drive back to Cancun - stay <small>OR GO ON FROM CANCUN → TIKAL.</small>	Stay in Cancun
FRI. FEB.14	→ Tikal Stay Tikal	or stay Cancun
SAT. FEB.15	Tikal → Cancun	→ Tikal Stay Tikal
SUN FEB.16	Fly → LAX	Fly → LAX

Sat. Feb. 8
Fly to Mexico City



Teotihuacan



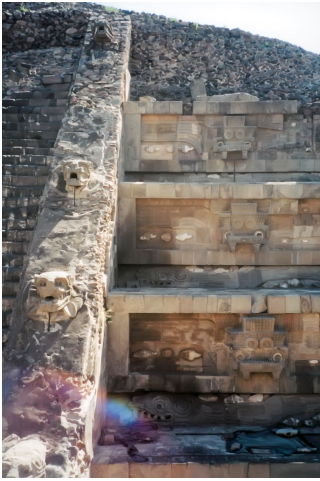
Teotihuacan



Teotihuacan



Teotihuacan





Teotihuacan

Sat. Feb. 8
Fly to Cancun



Brennen, Christopher

From: elvia alcala [ealcala@bestday.com]
Sent: Monday, February 03, 2003 2:33 PM
To: brennen@caltech.edu
Subject: RE: CONFIRMATION14178

Dear Christopher : I am pleased to inform you that your reservation has been confirmed as follows:

Confirmation Number: CORE 14178
Hotel: CHICHEN ITZA
Dates: FEB 12-13
Nights: 1
Rooms: 1 dbl/std
No. of people: 2 adults
Total due:\$37.44 usd (tax included)

Please verify that the above information is correct and please reply allowing us to charge the amount above mentioned to your credit card.

BILLING POLICY:
100% of the cost will be charged immediately.

CANCELLATION POLICY:
Over 15 Days: 10% non refundable service charge.
14 Days or Less: no refunds.

If you were unable to print the hotel voucher or confirmation, please go to <http://www.cancun.com/db/gt57gr2/confirmed.php3> print this document, sign it and fax it to 52(998)881-7308. You must present this hotel voucher at the time of your check in.

Thank you for making your reservation through Cancun On Line and please try to reply within the next 48 hours. If you have any further questions do not hesitate to contact me.

I remain at your services.

Elvia Alcala
Internet Reservations
Tel 52 (998) 881-73-07
Fax 52 (998) 881-73-08
ealcala@bestday.com
Best Day Tours/Cancun On line
----- Original Message -----
From: <resdesk@cancun.com>
To: Arch. Allotment Manager <resdesk@cancun.com>
Sent: Monday, February 03, 2003 1:45 PM
Subject: H14178-62 TRANSACTION CORE COL

> From: brennen@caltech.edu (Christopher E Brennan)
> Reply-To: brennen@caltech.edu (Christopher E Brennan)
> Return-Path: resdesk@cancun.com
> Errors-To: resdesk@cancun.com (Best Day)
> MIME-Version: 1.0
> Content-Type: text/plain; charset=ISO-8859-1
> Content-Transfer-Encoding: quoted-printable
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> *****
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>
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Cancun



Cancun



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Surcharge : 2.70 USD
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Approximate Total: 32.61 USD

Elected Coverages: 18.99 USD
Mileage: Unlimited
Estimated Total: 51.60 USD (Includes selected coverages)

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Time & Place [Modify »](#)
Pickup: CUN - Cancun Intl Airport
Wednesday, February 12, 2003
12:00 PM
Return: CUN - Cancun Intl Airport
Thursday, February 13, 2003
12:00 PM
Airline: OTHER AIRLINES (NOT LISTED)
Flight: 345

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Rate Type: All Rates
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A unique jungle resort



The greatest city of the Itza Maya is a place of wonder and magic and at Mayaland, you will feel its heartbeat.

Mayaland was the first hotel built at Chichen Itza (in 1923), and, with its superb location amidst the temples, the first within an ancient site in the world. In its way, it's as much a landmark as the pyramids that tower above it. Mayaland is a creation of Old Yucatan, built and operated by its original owners and their descendants in a style reminiscent of the hacienda nobility of a century ago. Its air of genteel hospitality and old-fashioned charm is a legacy enhanced by the addition of every amenity.

The grounds are alive with birdsong and butterflies, and all the exotic fruits and flowers of tropical Yucatan.

Over 100 acres of gardens surround the mainhouse and its outlying Mayan bungalows,

your choice of accommodations.

The Mayaland hotel is an experience initself: on that will enrich your stay at Chichen Itza.

Quiet Luxury, discreet service

The main house is beautifully proportionated and embellished with the trappings of a bygone era. The staircase sweeps from an open mezzanine down into an entrance hall filled with antiques, polished tile, potted plants and sunlight.

The rooms and the suites of the main house have the gardens before them, and the Observatory of Chichen Itza to the west.



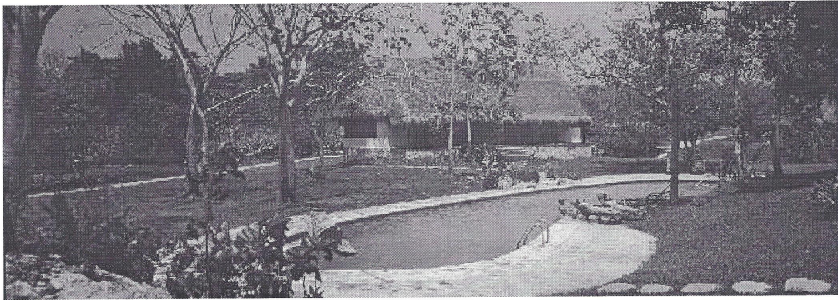
The spacious air conditioned rooms come with ceiling fans, satellite TV, servibars, bathrooms handtiled in ceramic, marble and stone, tubs, and breezy private balconies. Suites offer jacuzzis.

Clustered around secluded swimming pools, the bungalows seem an extension of the gardens in which they are located. Built in traditional Mayan style with wood, stone, native marble and thatch, they were created for guests wishing to commune with nature and with the culture that 1,000 before rose to greatness here.

Oriented for maximum privacy and the best of views bungalows are equipped with all the amenities of the main house. In addition, each comes richly decorated with the work of local artisans: ceramics, stained glass, weavings, and the region's precious hardwoods crafted in a variety of ways. The larger bungalows have separate bedrooms and pools; they all have verandas and personal gardeners.

\$\$

To facilitate getting about and enjoying Mayaland's spectacular gardens, the grounds are laced with a collection of interconnected paths, in fact there are three kilometers of trails for walking and jogging, cycling and horse riding. There is a golf cart service for those who would prefer to ride. Added attractions are the Mayan sites that dot the grounds: four buildings are currently being excavated and restored. The hotel has its own entrance to the archaeological site. Reservations for the Light and Sound Show, private excursions, guides, and horseback tour to Old Chichen can also be arranged at the front desk through our concierge.



The taste of the Yucatan

Mayaland's restaurants and its poolside grill aim for variety and authenticity and are successful on both counts. Options include international cuisine as well as the best of both Mexico and the Yucatan. Regional Yucatecan cooking is a world apart from the tacos and refried beans one generally associates with Mexico. The Yucatecans take pride in being different, and so they are. Their cuisine depends heavily on turkey and pork, rare spices, Mayan cooking

The Mayaland hotel

a unique jungle resort

Quiet luxury, discreet service

The main house is beautifully proportioned, and embellished with the trappings of a bygone era. The staircase sweeps from an open mezzanine down into an entrance hall filled with antiques, polished tile, potted plants and sunlight.

The 55 rooms and five suites of the main house have the gardens before them, and the Observatory of Chichén Itzá to the west. The spacious, air-conditioned rooms come with ceiling fans, satellite TV, servibars, bathrooms hand-tiled in ceramic, marble and stone, tubs, and breezy private balconies. Suites offer jacuzzi.

Clustered around secluded swimming pools, the 50 bungalows seem an extension of the gardens in which they are located. Built in traditional Mayan style with wood, stone, native marble and thatch, they were created for guests wishing to commune with nature and with the culture that 1,000 years before rose to greatness here.

Oriented for maximum privacy and the best of views, bungalows are equipped with all the amenities of the main house. In addition, each comes richly decorated with the work of local artisans: ceramics, stained glass, weavings, and the region's precious hardwoods crafted in a variety of ways. The larger bungalows have separate bedrooms and pools; they all have verandas and personal gardeners.

The hotel has pools, several bars, four restaurants, a convention hall, massage parlor, craft shop, and tennis, volleyball or a shuttleboard courts. The Pavlov Villa (navigated by the tenor himself) is available for private events. To facilitate getting about and enjoying Mayaland's spectacular gardens, the grounds are laced with a collection of interconnected paths, in fact there are three kilometers of trails for walking and jogging, cycling and horse riding. There is a golf cart service for those who would prefer to ride. Added attractions are the Mayan sites that dot the grounds: four buildings are currently being excavated and restored.

The hotel has its own entrance to the archaeological site. Reservations for the Light and Sound Show, private excursions, guides, and a horseback tour to Old Chichen can also be arranged at the front desk through our concierge.

The taste of the Yucatan

Mayaland's three restaurants offer variety and authenticity and are successful on both counts. Options include international cuisine as well as the best of both Mexico and the Yucatan. Regional Yucatecan cooking is a world apart from the tacos and refried beans one generally associates with Mexico. The Yucatecans take pride in being different, and so they are. Their cuisine depends heavily on turkey and pork, rare spices, Mayan cooking

The kitchen takes its fruit and vegetables straight from the garden and are so delightful. Service is low-key and the ambience ranges from informal to refined. School children perform regional folk dances at lunch, and in the evening, guitar-strumming minstrels fill the air with the music of Yucatan's favorite composers.



An enduring tradition

In 1921, Mayaland founder Fernando Barbachano Peon brought the first tourists to Chichén Itzá by convincing folks to leave their ship at the Gulf Coast port of Progreso and follow him into the jungle. They didn't regret it, and he never looked back. His achievement marked the beginnings of organized tourism in Mexico and he is considered the nation's travel industry pioneer. Today, with the same enthusiasm and charisma, his family continues to show travelers the best of the Yucatán.

Mayaland is the gateway to two very different worlds, to the quiet glories of Old Yucatán, and to the might of the ancient Maya, and to fully appreciate the magic of the Yucatán, you must experience both.



MAYALAND RESORTS

Reservations
Toll free in United States:
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www.mayaland.com
Toll free in Mexico:
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In Cancún
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Fax: (52) 998-887-45-10
email: info@mayaland.com

Host Direct
Tel.: (52) 985-851-0100
Fax: (52) 985-851-0129
email: mayaland@chichen.com.mx

MAYALAND
CHICHÉN ITZÁ, YUCATÁN, MEXICO

At the heart of Chichén



MAYALAND
CHICHÉN ITZÁ, YUCATÁN, MEXICO



La Iglesia, Chichén Itzá as depicted by 19th-century illustrator Fredericka Catherine Wood

Chichén Itzá:

Chichén Itzá was the major site of the Postclassic Maya. It was a place of mystery and magic, and power so pervasive that centuries after its decline it was still considered holy. Monumental architecture marks the center of a city that in its day covered more than 25 sq. km.

Settlers appeared in the area as early as 300 B.C., but not until 750 A.D. is there evidence of urban planning. By 900 A.D. and under the Itz'at Maya, Chichén is a thriving metropolis of 30,000 souls governed by a ruling junta composed of the nobility and the priest, warrior and merchant castes (unlike the Classic Maya who were ruled by dynasties). Building stopped in 1100 A.D. and the city was abandoned by 1250 A.D., no one knows why.

Chichén is a mix of styles, Toltec and Maya. The major structures are within walking distance of each other and what you'll be seeing is the city's ceremonial center.



PYRAMID OF KUKULCÁN

Chichén Itzá



A World Heritage Site

At its heart, around the Great Plaza are the Ballcourt, its various temples and splendid bas-reliefs and murals; the Tzompantli platform, the Venus platform, the Jaguar and Eagle platforms, El Castillo or Pyramid of Kukulcán, its 1000 columns, and the nearby mercado or market. Straight north from El Castillo, down the ceremonial road, called a sacbé is the Sacred Cenote, or well of human sacrifice. Both the Warriors and El Castillo are built over smaller, earlier temples; access to the inner chambers of the latter is permitted for a few hours every day. Check with the hotel concierge for the schedule.

Just south of the great plaza is the Osary Group (which dates from 800-1000 A.D.), and a short walk from there is the Red House, the House of the Deer, the Observatory, Las Monjas, La Iglesia and the Akab Dab (collectively, 600-900 A.D.).

Old Chichén, a remote area with early buildings of pure Maya design (circa 378 A.D.) is located out in the jungle and best reached by horseback. Check with the hotel for details.



Yucatán, your host

Yucatán is one of the truly unique areas of the world. It remained outside mainstream Mexican life for centuries, due to its remote location and the fiercely independent nature of its inhabitants. The region evolved on its own, its outlook broadened and enriched by the flow of information coming through its international ports.

Modern Yucatecos are proud of their heritage, both native Maya and mestizo. They are refreshingly open to foreigners, hospitable by nature and breeding, and eager to share the beauties of their land. Over 90 percent of the staff at Mayaland are from the region and speak Mayan, which is just as it should be.



BALANCANCHE CAVE

Exploring the Yucatán location is even

As Chichén Itzá was perfectly controlled of the region, Mayaland heart of Chichén becomes the p of operations for excursions around the peninsula, all of an easy drive from

Balancanché

[6 mi. from hotel] discovered here suggest used the cave during 10-11th centuries for w Chac, then Tlaloc, n the Maya respectively. A main cavern and it through a 300 m-l

Dzitnu

[23 mi.] Cenotes or natural fresh y are among the Yucatán's m geographical features. Creati bedrock of the peninsula gives water table below, they mant the between life and death to the an

Valladolid

[25 mi.] Founded soon after the C the site of the Maya settlem Valladolid was a hotbed of re during the Caste War (1847 of the oldest colonial n the peninsula are I San Bernardino de h and the Crover Today, Valladol

Map of Chichén Itzá





Chichen Itza



Chichen Itza



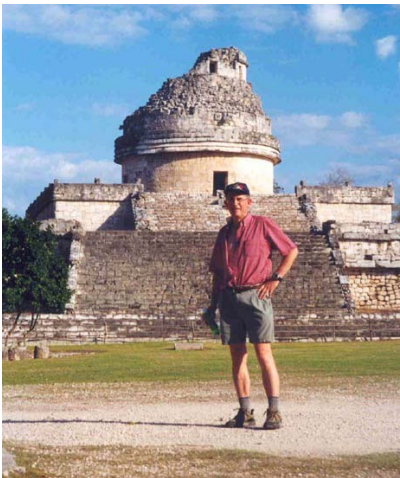
Chichen Itza



Chichen Itza



Chichen Itza





Chichen Itza

Sat. Feb. 8
Fly to Flores en route to Tikal

CHRISTOPHER BRENNEN
2 PAX
February 13th – 15th, 2003

DAY 1
Thursday, February 13th
CANCUN – TIKAL

Your flight from Cancun to Tikal departs at 1:30 pm, arriving at 3:05 p.m. into Flores. You must be 2 hours ahead of time at the TACA ticket counter in the Cancun airport for check in. Upon arrival at the Santa Elena airport, look for the Maya Shuttle counter where you will find our driver who will take you the Tikal National Park. Dinner on your own. Overnight at the Jungle Lodge.

DAY 2
Friday, February 14th
TIKAL

After breakfast (included at your hotel) you will go on your guided tour, which will start at 9:15 a.m. from your hotel's lobby. Tikal is the most impressive of all Maya Ceremonial centers, due to its magnificent monumental architecture and the abundance of structures that have been excavated and restored at the site. Lunch included at your hotel. After lunch, visit the Sylvanus Morley Museum, where you will find the pieces that the University of Pennsylvania discovered during 13 years of research at the site. You will have some time to see more of the site in the afternoon on your own. Dinner on your own. Overnight at the Jungle Lodge.

DAY 3
Saturday, February 15th
TIKAL - CANCUN

Breakfast (not included today). Free time on your own to see more about Tikal (entrance fee not included). Besides its archaeological magnificence, it is a great place to enjoy nature: howler monkeys, oropendolas, keel-billed toucans... and the jungle. At 9:15 a.m., transfer from the hotel to the airport in Flores for flight back to Cancun, leaving at 11:20 a.m. Farewell!

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1- Account name

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US
Reservation confirmation code JWOAQQ <<< This code is important: write it down or print this page for future reference!

2- Itinerary

> Cancun (CUN) to Flores (FRS)
Date: 13/02/2003 Flight # TA7977 Departure/Arrival: 01:30 PM - 03:05 PM

> Flores (FRS) to Cancun (CUN)
Date: 15/02/2003 Flight # TA7976 Departure/Arrival: 11:20 AM - 12:50 PM

3- Booking information

Passenger(s):
MR CHRISTOPHER BRENNEN (Adult)
MRS KATHARINE BRENNEN (Adult)

Adult fare: (x 2): 279.00
Taxes on adult fare: (x 2): 26.87

Total airfare: USD 558.00
Total taxes: USD 53.74
Ticket by mail fee: USD 10.00

Total: USD 621.74

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JUNGLE LODGE
POSADA DE LA SELVA
TIKAL - PETÉN, GUATEMALA, C.A.



The Hotel Jungle Lodge is located only 1 km from the Central Plaza of Tikal. Its is one of two hotels within the boundaries of the National Park, surrounded by the pristine rainforest in Petén.



The Jungle Lodge is the place where you want to be!! Beautiful and comfortable bungalows are nestled in exuberant nature. The Hotel provides guided services to the archaeological sites, bird watching tours and transportation to many other sites in Petén.



The Jungle Lodge also has a swimming pool where you can admire the keel-billed toucans, howler and spider monkeys. The accommodations include hot and cold showers, two double beds, ceiling fans, private porch and a symphony, courtesy of the jungle.

After an exciting day of discovery and exploration, you can relax with a refreshing drink from bar and later, enjoy a candle light dinner in our restaurant.

Room ra

Single Doubl
\$104 \$173

Price includes g
& lunch on fi
breakfast on se

Additional

Single Doubl
\$62 \$88

Price includes
and tax



Other H
in Tik



Tikal



Tikal



Tikal



Tikal



Tikal



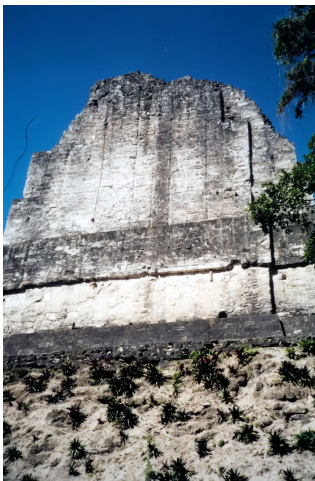
Tikal



Tikal



Tikal



Tikal

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

TRAVELS NOW AND THEN

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JAPAN 2003



In Matsumotos Office??

Sat. Mar.1

Fly UA897 from Los Angeles to Narita, Tokyo.

Sun. Mar.2

Mon. Mar.3

Tue. Mar.4

Wed. Mar.5

Fly UA890 from Narita, Tokyo, to Los Angeles.

Fri. Oct.31

Fly UA891 from Los Angeles to Narita, Tokyo.

Sat. Nov.1

Fly AN 8233 from Narita, Tokyo, to Itami, Osaka.

Sun. Nov.2

Mon. Nov.3

Tue. Nov.4

Fly AN 32 from Itami, Osaka, to Haneda, Tokyo.

Wed. Nov.5

Thu. Nov.6

Fly UA890 from Narita, Tokyo, to Los Angeles.

Sat. Dec.6

Fly UA891 from Los Angeles to Narita, Tokyo.

Sun. Dec. 7

3.55pm Arrive Narita on UA 891

Train to Ueno. Ginza line to Shibuya.

"Shibuya-Excel Tokyu Hotel" (Tel.no. 03-5457-0109)

Booked single use in Double room, normal rate 20,000yen, but special discount 16,270yen (incl.Tax + service)

http://www.tokyuhotels.co.jp/en/TE/TE_SHIBU/index.shtml

Dec 8 Mon

Toyoko line from Shibuya to Hiyoshi (12 stops?)

12.00pm Kataoka will meet me at Hiyoshi Station

Meet with the Dean - sushi lunch

1.30pm Meet with Hishida

2:00pm Lab tour and Keio facilities

6.00pm Dinner at Hiyoshi Faculty Club

7.30pm Leave for Tsuchiura via Shin-Kawasaki JR station

(Hishida will take me by car – 10min)

7:50pm Shin-Kawasaki (Yokosuka line, train named "Air-Port Narita")

8:07pm Shinbashi (transfer to Yamanote-line)

8.12pm Shinbashi -> Ueno (by Yamanote-line) - 8:24

8.30pm Ueno (Jyouban-Line, train named "Fresh-Hitachi" Track no.17). "Fresh-Hitachi" is limited express, so you have to pay extra.}

9:16pm Arrive Tsuchiura Station. Dr.Iino will meet me and take me to Hotel Marroad Tsukuba

Dec 9 Tue

9.10am Dr. Iino will pick me up at the hotel

9:30am Arrive Mech. Eng. Research Lab.(MERL),Hitachi

10.00am Review of research on

Cavitating flow (Dr. Fukaya)

Vortex cavitation (Mr. Nagahara)

Ultrasonic mixing (Dr. Kato)

11.00am Lab tour, Mr. Nagahara (PIV)

Mr. Yamashita (Laser Beam Printer)

12.00pm Lunch with Iino, Ikegawa, Kaiho, Fukaya, Minato, Mitsuya

1.00pm Lecture on

"Bubbly cavitating flows: modeling issues including cloud cavitation effects and bubble fission"

2.00pm Discussion

2.30pm Leave for Tsuchiura Station w. Mitsuya

3.16pm Train to Omika Station, Hitachi w. Mitsuya

4.29pm Arrive Omika Station, Hitachi City (Dr. Minato)

4.45pm Check into Omika Club guesthouse, Hitachi City

6.00pm Dinner at Omika Club (Minato and Mitsuya)

Dec 10 Wed

9:30am Minato will pick me up at Omika Club
9:35am Arrive at Power & Indust. R&D Lab Hitachi
10.00am Lecture on
"Cavitation in biological and bioengineering contexts".
11.00am Research at PISL: Turbomachinery (Mr. Mizumi)
Gas-liquid flows (Dr. Minato)
12.00pm Lunch at Hitachi (Mizumi, Minato, Mitsuya)
1.00pm Research at PISL: Bubble oscillations (Mr. Katouno)
1.30pm Discussions
2.00pm Leave for Omika station
2.21pm Train to Sendai.
Stay Hotel Sunroute, Sendai (tel: 022-262-2323)

Dec 11 Thu

Lecture on "Strange world of shifting sand"
Evening. Celebration at IFS (and Karaoke)
Stay Hotel Sunroute, Sendai

Dec 12 Fri

9.30am Get to Kamijo's office
10.00am Ceremony and lecture at IFS: "Bubbly cavitating flows: modeling issues including cloud cavitation effects and bubble fission"
Evening in Sendai.
Stay Hotel Sunroute, Sendai

Dec 13 Sat

Taken ill - trip to Zao cancelled.

Dec 14 Sun

Travel to Tokyo
Fly UAL890 at 4.25pm NRT-LAX. Arrive LAX 8.45am

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Christopher E. Brennen*

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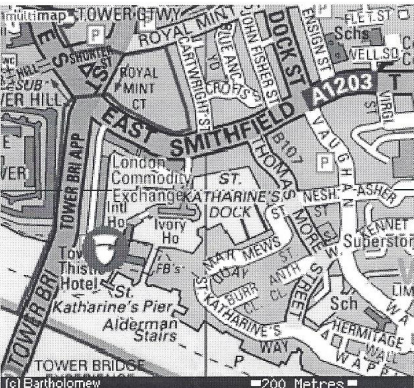
Getting There

If you're travelling by car, rail, air, or even on foot, we'll give you the directions to make your journey simple. Whether you're travelling to a hotel, or from one, use the Route Finder for step-by-step instructions.

[Getting T](#)

[Direct](#)
[Route Fi](#)

Map



To see an interactive version of this map, click on this [View Interactive Map](#) link.

RAILTRACK **Railt**
This web site is "the heart the railway". It provides information on the above ground railway including: stations, timetables, bridge tunnels, track and signals.

Directions

Road
Head for Tower Bridge. Drive towards Tower Bridge as if crossing to south of river, straight over first set of lights and do a U-turn at 2nd set of lights. After the traffic light controlled junction, turn left immediately into St Katherine's Way and the hotel is at the end. There are 120 car parking spaces available under the hotel at an additional charge

Railway and the Tube
Fenchurch Street is 0.5 miles away.



London, Tower Bridge



London, Tower Bridge

Tue. Mar.25
Fly to Prague



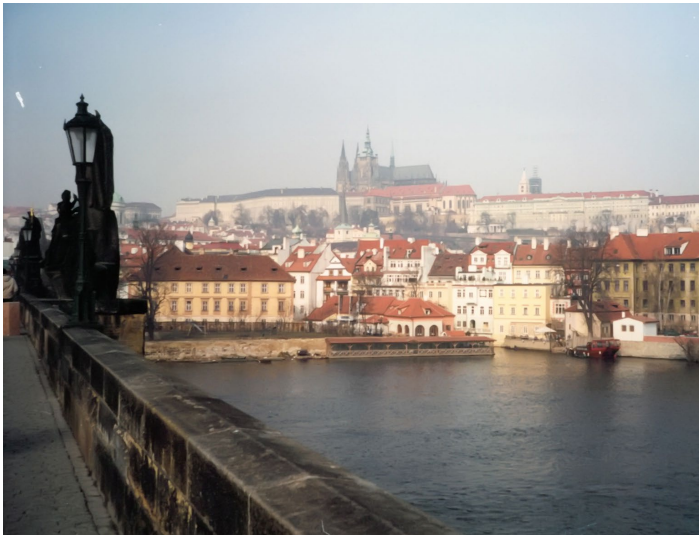
Prague



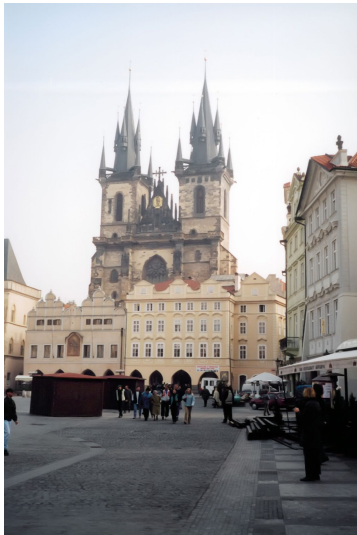
Prague

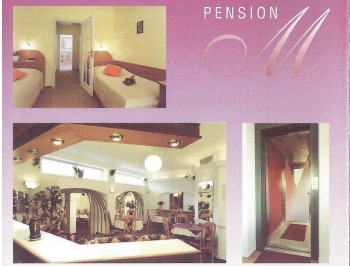


Prague



Prague





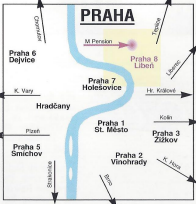
PENSION



Davidkova 2143/94
182 00 Praha 8
Czech Republic

MARIE HUMLHANZOVA

Tel.: +420 283 88 88 27
Tel./fax: +420 283 88 88 84
E-mail: m.pension@volny.cz
www.pension-m.cz



Dopravní spojení:
Městskou hromadnou dopravou se dostanete ze stanice Ládví do centra přibližně za 20 minut. (Tram.: 10, 17 a 24). V roce 2004 bude zprovozněna i stanice metra. Pokud chcete využít auto, dostanete se do centra pohodlně čtyřpruhovou magistrálou asi za 10 minut. Zaměstnanci pensionu vám jsou k dispozici i při zajištění dopravy např. z letiště či na nádraží apod.

Public Transportation connection:
Using the Prague Public Transportation Network, you can get to the center in about 20 minutes. Just take the tram number 10, 12, 17 or 24 from the „Ládví“ Tram stop. Tram station: „Ládví“. Tram number: 10, 17 or 24. Metro station: from 2004. From the year 2004, there will be also a metro station available. If you decide to travel by car, the four-lane expressway will take you easily to the town center in about 10 minutes. Our staff is available for you also in case you need transportation from the airport or railway station.

Verkehrsverbindung:
Mit dem Stadtverkehr können Sie das Zentrum in 20 Minuten erreichen. Dort fahren Sie mit der Straßenbahnnummer 10, 17 oder 24 von der Haltestelle „Ládví“. Straßenbahnhaltestelle: „Ládví“. Straßenbahn Nummer: 10, 17 oder 24. U-Bahn Station: seit 2004. Falls Sie das Auto bevorzugen, fahren Sie auf der Autobahn und bequem erreichen Sie das Stadtzentrum in zirka 10 Minuten. Unser Personal steht Ihnen auch beim Transport von dem Flughafen oder Bahnhof zur Verfügung.

PENSION



DOBŘÝ DEN

Vítáme Vás
v M Pensionu!



M Pension se nachází v regionu Prahy 8 - Libeň, 20 minut od centra, v klidném prostředí.

Pension má 10 pokojů s vlastním sociálním zařízením, z toho 4 pokoje jsou s balkonem, výhled, bar, salonek pro různé příležitosti, posezení na zahradě, 2 garáže a 5 parkovacích míst.



GUTEN TAG

Herzlich
Willkommen in
der M Pension!



Die M Pension befindet sich in Prag 8 und gewährt Ihnen einen angenehmen Aufenthalt in einer ruhigen Lage und gemüthlicher Atmosphäre. Die Pension ist 20 Minuten vom Stadtzentrum entfernt.

Insgesamt bietet die Pension 10 Zimmer mit Dusche und WC, davon 4 Zimmer sind mit Balkon. Die Pension ist mit einem Aufzug, Bar und einem kleinen Salon für verschiedene Gelegenheiten ausgestattet. Außerdem gibt es auch Sitzmöglichkeiten in dem Garten. Zwei Garagen und fünf Parkplätze stehen den Gästen zur Verfügung.

HALLO

Welcome to
„M Pension“
Guest House!



The M Pension is located in Prague 8, approximately 20 minutes from the town center, in a quite neighborhood.

The M Pension is a 10-room Guest House with an elevator. Each of the guest rooms has a private bathroom, four of the rooms are available with balcony. There is a bar, a lounge for various occasions, and a garden, where you can rest as well. There are 2 garages and 5 parking lots available.



Brennen, Christopher

From: Marsik [marsik@it.cas.cz]
Sent: Friday, February 28, 2003 7:16 AM
To: Brennen, Christopher
Subject: All is prepared for your arrival

Dear Professor Brennen,

Patrik will pick you up at the airport and he will take you to your small hotel called "Hanauer" near our institute. He will explain to you the best way to reach the historical center to visit the most interesting places. On 26. March I will not be in Prague, but on 27. March at 8.00 a.m. I will pick you up at your hotel and we shall go to the Czech Technical University, where the PhD defence will take place. Then we shall have lunch before 14.00 p.m. in the institute. Everything will be prepared to reimburse your money and to present your lecture. Please take the flight ticket and the receipt with you. In the evening I would like invite you and your wife to dinner in a small restaurant near your hotel. On Friday you will be free and you can change the Czech crowns back to USD.

Looking forward to seeing you and your wife in Prague I stay

With the best regards

Frantisek Marsik

Frantisek MARSIK, Prof., DrSc
Institute of Thermomechanics
Academy of Sciences of the Czech Republic
Dolejskova 5
182 00 Prague 8
Czech Republic

tel: ++4202 6605 3322
 ++4202 8658 8448
fax: ++4202 8658 4695
E-mail: marsik@it.cas.cz

Frantisek MARSIK, Prof., DrSc
Institute of Thermomechanics
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Dolejskova 5
182 00 Prague 8
Czech Republic

tel: ++4202 6605 3322
 ++4202 8658 8448
fax: ++4202 8658 4695
E-mail: marsik@it.cas.cz



Close

From: Patrik Zima [SMTP:zimap@it.cas.cz]

To: Brennen, Christopher

Cc:
Subject: Re: a query - PhD defence, Prague

Sent: 3/10/03 7:27 AM

Importance: Normal

Dear Prof. Brennen:

I definitely recommend La Boheme in National Theatre. I have made a reservation for you and your wife for Friday, 7pm. The performance takes 2,5 hours and the price is 2 x 950 CZK = 2 x 35 USD. I have chosen the best seats for you (ground floor, 8th row, most expensive). If you would like to change or cancel the reservation I can do it just let me know.

I am very pleased that you are interested in historical sights. Prague is rich in history and I am sure you will be busy during your short visit just walking and looking around. The historical centre is enormous and well preserved as a result of not being bombed during World War II.

1) The main attraction to visitors is the architecture itself and I doubt that it can be seen in less than a week. You can find a very fine selection of the most spectacular places at

<http://www.czechbyclick.com/regions/01prague/places/index.cfm> (most items have a virtual tour and the site has a very rich photo gallery). Apart from the sights you can find on this site I recommend the Waldstein Garden.

2) Prague is the cultural capital of central Europe, it is famous for its countless museums and galleries. I personally like the Waldstein riding school and the amazing Veletržní Palace (Fairs Palace) where you can find paintings by famous painters including (please see <http://www.ngprague.cz/main.php?language=en>).

3) Prague is the city of music as well. There are numerous music clubs with live music such as jazz and blues clubs. A professor from Taiwan who visited us last year spent all his nights in jazz clubs, circulating as many of them as possible. An interesting performance is the Krizik's singing fountain in the Exhibition Place.

4) Prague is famous for glass shops and crystal and garnet jewelry are the most common souvenirs that tourist bring from Prague. Also famous are marionettes and puppets.

5) Although the Czechs are not a "gastronomically advanced" nation, we are very proud of our beer (both words Pilsner and Budweiser are names of Czech breweries) - please visit <http://archiv.radio.cz/beer/> Another famous

<http://starfish.caltech.edu/exchange/forms/IPM/NOTE/read.asp?command=open&obj=000...> 3/10/2003

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STATE OPERA



KAIS

26th MARCH
Wednesday

OPERA: THE MAGIC
FLUTE
Mozart
Starting hour: 19:00
Price: EUR 49
Book now

RIGOLETTO
Verdi
Starting hour: 19:00
Price: EUR 56
Book now

27th MARCH
Thursday

OPERA: DER MEERGEUSE
- PREMIERE
Fr. Skroup
Starting hour: 19:00
Price: EUR 80
Book now

DIE ZAUBERFLÖTE
Mozart
Starting hour: 19:00
Price: EUR 56
Book now

28th MARCH
Friday

OPERA: LA BOHÈME
Puccini
Starting hour: 19:00
Price: EUR 45
Book now

CARMEN
Bizet
Starting hour: 19:00
Price: EUR 56
Book now

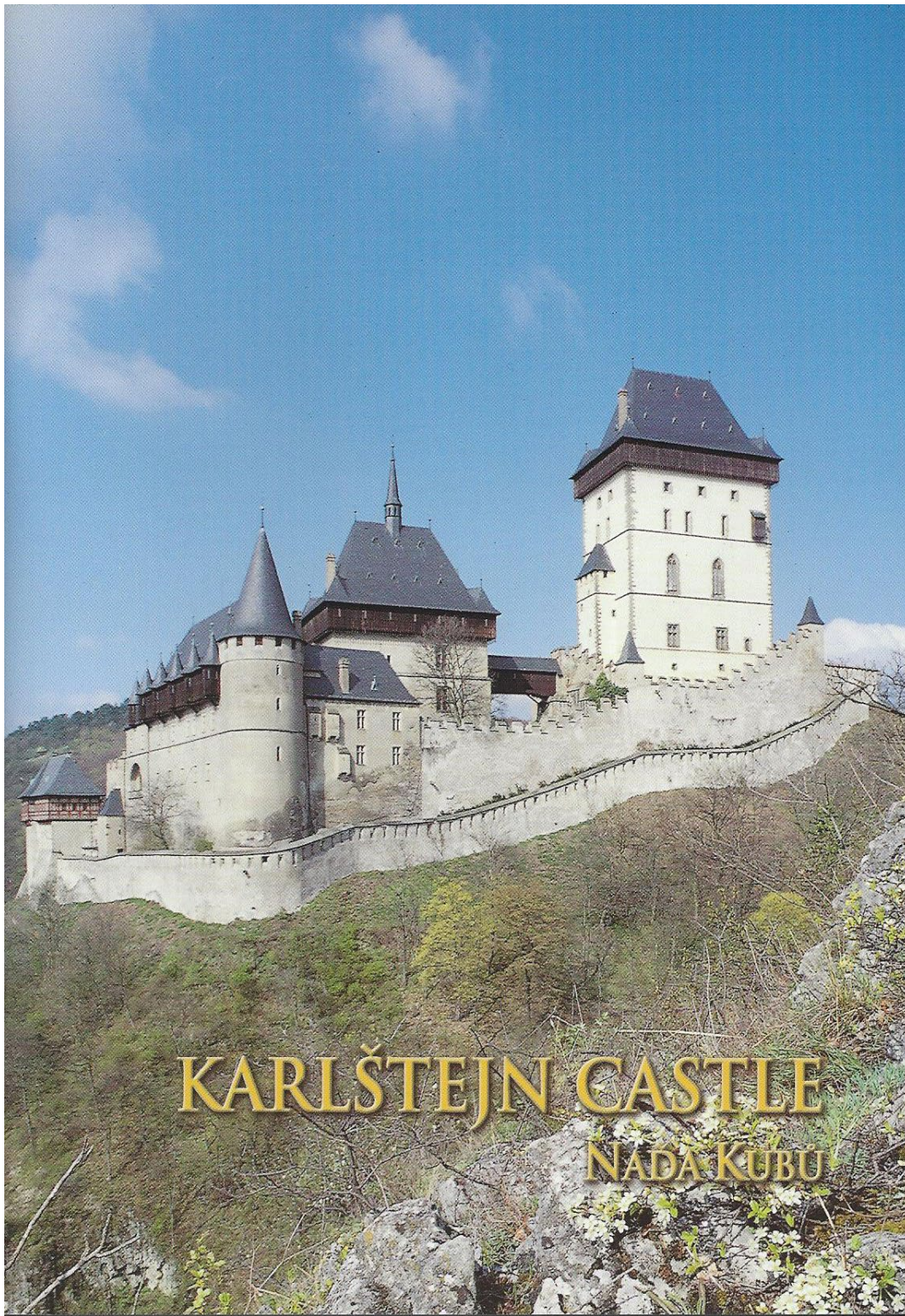
OPERA: LA TRAVIATA

BALLET: SONGS OF THE
EARTH

LA TRAVIATA

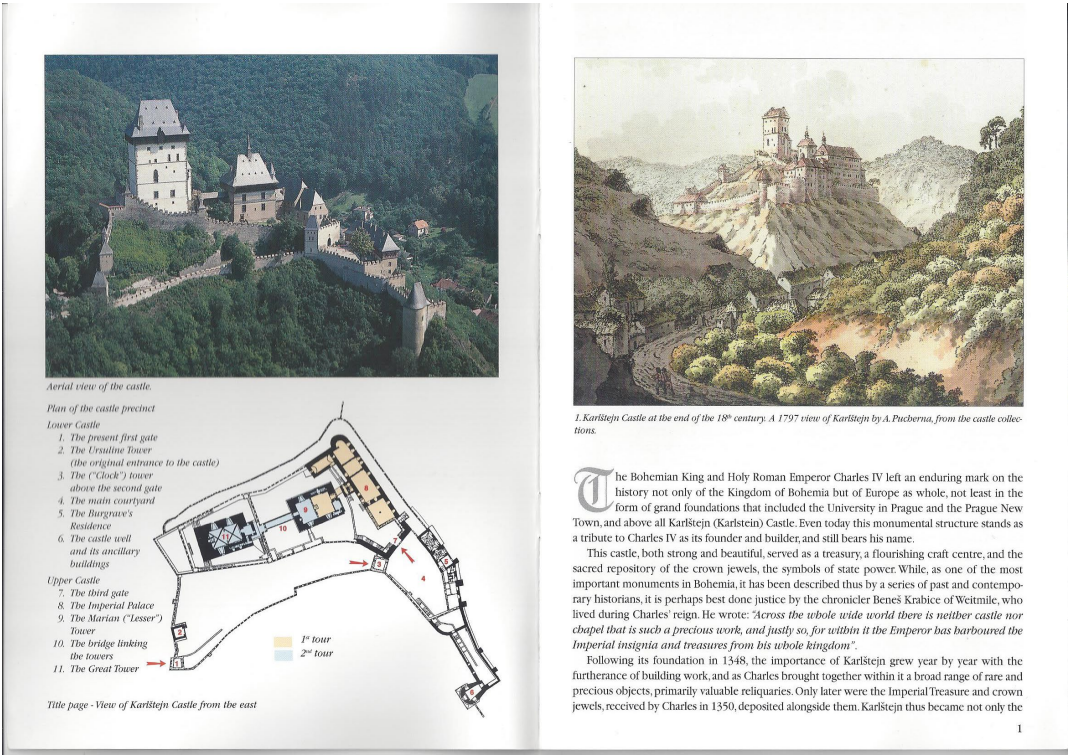
<http://www.ticketsonline.cz/main.asp>

3/7/2003



KARLŠTEJN CASTLE

NADA KUBU



Karlstein Castle



Karlstein Castle





Karlstein Castle

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Christopher E. Brennan*

Ireland Aug., 2003.

Fri. Aug.1 D+C, K+fam: Fly UA934 LAX-LHR, 6.10pm-12.40am
Dana: Fly BA66 PHL-LHR, 7.00pm-7.05am

Sat. Aug.2 D+C, K+fam: Arr. LHR 12.40am. Fly BD088, LHR-BHD, 3.20pm-4.35pm
Dana: Arr. LHR 7.05am. Fly BD082, LHR-BHD, 8.55am-10.10am
Drive to 56 Belvedere Park, Castlerock (Colin will have the key)

Sun. Aug.3

Mon. Aug.4

Tues.Aug.5

Wed. Aug.6

Thur.Aug.7

Fri. Aug.8

Sat. Aug.9

Sun. Aug.10

Mon. Aug.11

Tues. Aug.12

Wed. Aug.13

Thur. Aug.14

Fri. Aug.15 D+C: Fly EJ483, BFS-EDI, 6.45am-7.40am (E2CLLGP)
Kath: Dep. BHD at 6.45am. Fly UA, LHR-LAX
Dana: BD085, BHD-LHR, 11.10am-12.25pm, BA69, LHR-PHL, 4.15pm-7.10pm
D+C: Alamo Rental Car (14670116) Drive to Jedburgh (51 miles)
Stay Meadhon House, 48 Castlegate (577025)

Sat. Aug.16 Edinburgh. Drive to Kinross (27 miles)
Stay with Adele and Bruce at Dulciana, Bishop Terrace, Kinnesswood.

Sun. Aug.17 Drive to Fort William (121 miles)
Stay at Best Western Glenspean Lodge, Roy Bridge (637455809)

Mon. Aug.18 Drive to Isle of Skye (124 miles)
Stay at Flodigarry Hotel, Staffin

Tue. Aug.19 Drive to Inverness (114 miles)
Fly EJ192, INV-Luton, 4.15pm-5.45pm (E2CLLNH)
6.15pm National Express bus to Heathrow?
Stay Le Meridien Hotel, Heathrow (5643592)

Wed. Aug.20 D+C: Fly UA935 LHR-LAX, 10.55am-2.15pm

TRAVELS NOW AND THEN

© Christopher Earls Brennan

IRELAND 2003

IRELAND 2003

Ireland Aug., 2003.

- Fri. Aug.1 D+C, K+fam: Fly UA934 LAX-LHR, 6.10pm-12.40am
Dana: Fly BA66 PHL-LHR, 7.00pm-7.05am
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- Mon. Aug.4
- Tues. Aug.5
- Wed. Aug.6
- Thur. Aug.7
- Fri. Aug.8
- Sat. Aug.9
- Sun. Aug.10
- Mon. Aug.11
- Tues. Aug.12
- Wed. Aug.13
- Thur. Aug.14
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Stay at Flodigarrry Hotel, Staffin
- Tue. Aug.19 Drive to Inverness (114 miles)
Fly EJ192, INV-Luton, 4.15pm-5.45pm (E2CLLNH)
6.15pm National Express bus to Heathrow?
~~No hotel booked yet~~ LE MERIDIEN HOTEL (THREE MAGPIES)
- Wed. Aug.20 D+C: Fly UA935 LHR-LAX, 10.55am-2.15pm

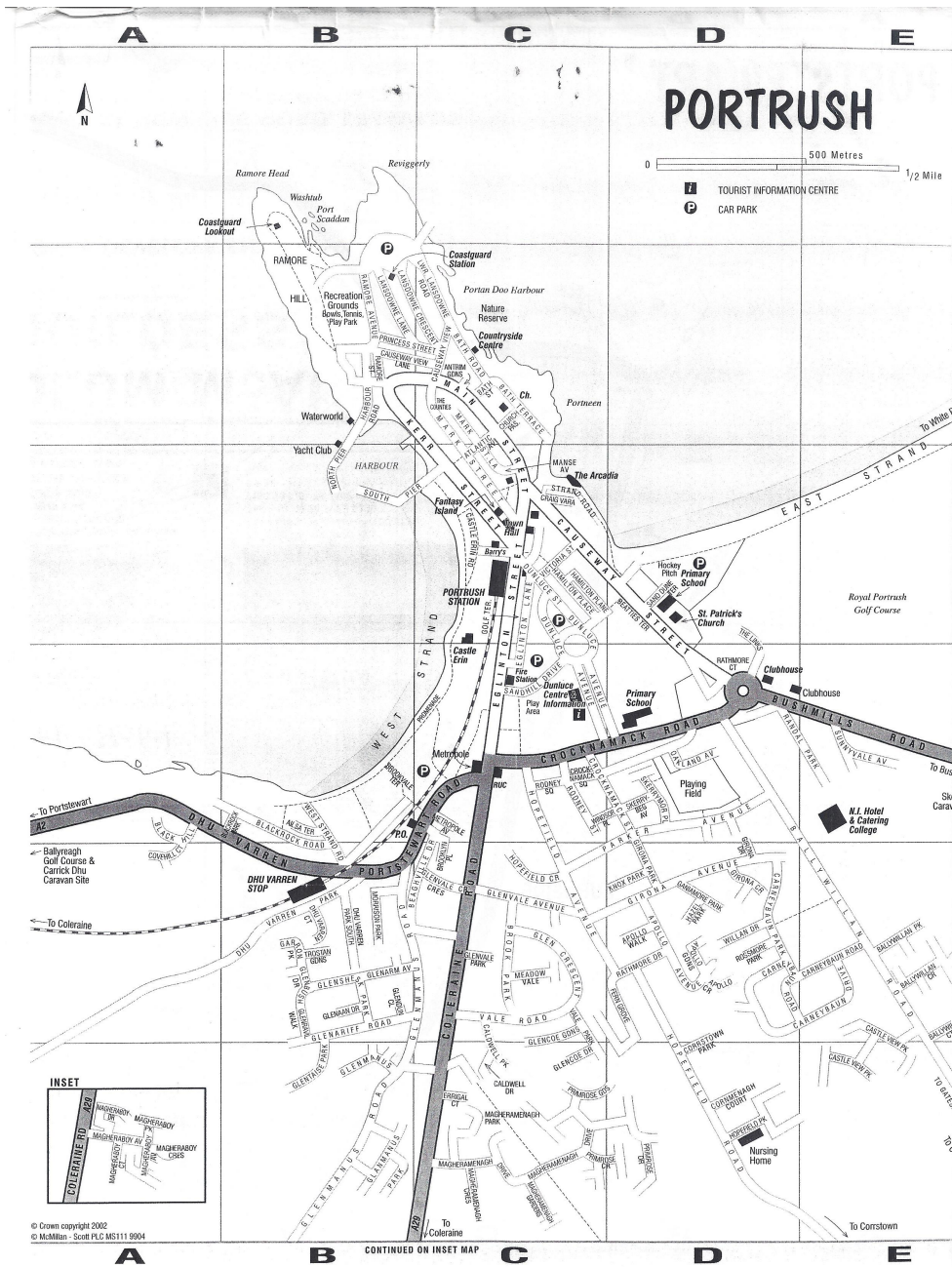
Fri. Aug.1

Fly UA934 from Los Angeles to London, Heathrow. leaving 6.10pm.

Sat. Aug.2

Arrive LHR at 12.40pm. Fly BD088 LHR-BHD, 3.20pm-4.35pm





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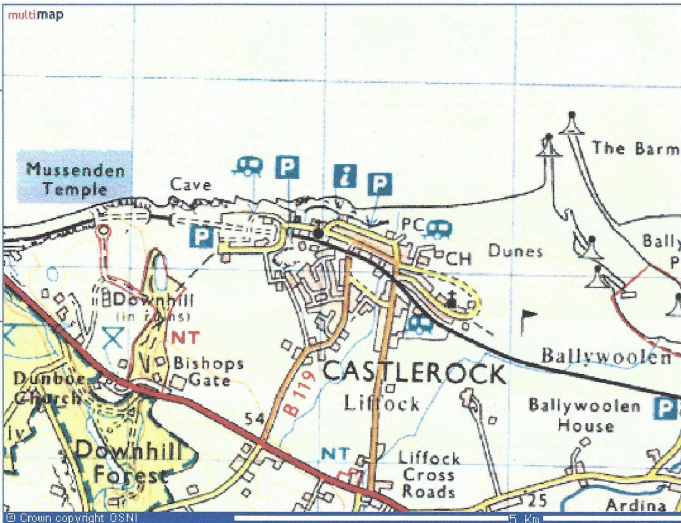
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Downhill Estate


[look for another place](#) | [more about Northern Ireland](#) | [information for visitors](#) | [overseas visitors](#) | [travel trade](#) |



Set on a stunning and wild headland with fabulous clifftop walks and views over Ireland's north coast is the landscaped estate of Downhill, laid out in the late 18th century by the eccentric Earl and Bishop, Frederick Hervey. Estate includes ruins, mausoleum, beautiful gardens and the renowned Mussenden Temple perched on the cliff edge.

What's new in 2003
Mussenden Temple available for weddings, concerts and conferences







 WC available when Temple open

 **Opening arrangements:**

Temple								
1 Mar–31 May	11–6						Sa	Su
1 Jun–31 Aug	11–7:30	Mo	Tu	We	Th	Fr	Sa	Su
1 Sep–30 Sep	11–6						Sa	Su
1 Oct–31 Oct	11–5						Sa	Su

Grounds								
All year	Dawn–dusk	Mo	Tu	We	Th	Fr	Sa	Su

Notes: Open BH Mons; also open BHols in Northern Ireland 17 March, 22 April & 14–15 July

-  Mid-summer concerts
-  Level entrance. Recommended route map. Adapted WC at Lion's Gate. – [more information](#)
-  Pushchairs admitted.
-  Suitable for school groups.
-  On leads only
-  Racks at all entrances. No cycling on estate

[C758363] 1ml W of Castlerock and 5ml W of Coleraine on the

- Useful Information**
- Map
 - Events at this property
 - Symbols key
 - Essential visitor information
 - General recreational activities
 - Local cycle routes
 - More accessibility information

Address
North Derry Office, Hezlett Farm
107 Sea Road,
Castlerock,
BT51 4TW

Telephone
028 7084 8728
028 2073 1582 (Learning)

Fax
028 7084 8728

Email
[Click here to email](#)

Trust properties nearby
Giant's Causeway, Hezlett House, Portstewart Strand



Castlerock





Castlerock



Castlerock



Castlerock



Castlerock



Castlerock



Castlerock



Castlerock



Castlerock and Ballykelly



Donegal



Donegal



Donegal



Donegal



Donegal





Cranagh Dhu, Magherafelt



Cranagh Dhu, Magherafelt



Magherafelt



Magherafelt





Cranagh Dhu, Magherafelt



Cranagh Dhu, Magherafelt



Cranagh Dhu, Magherafelt



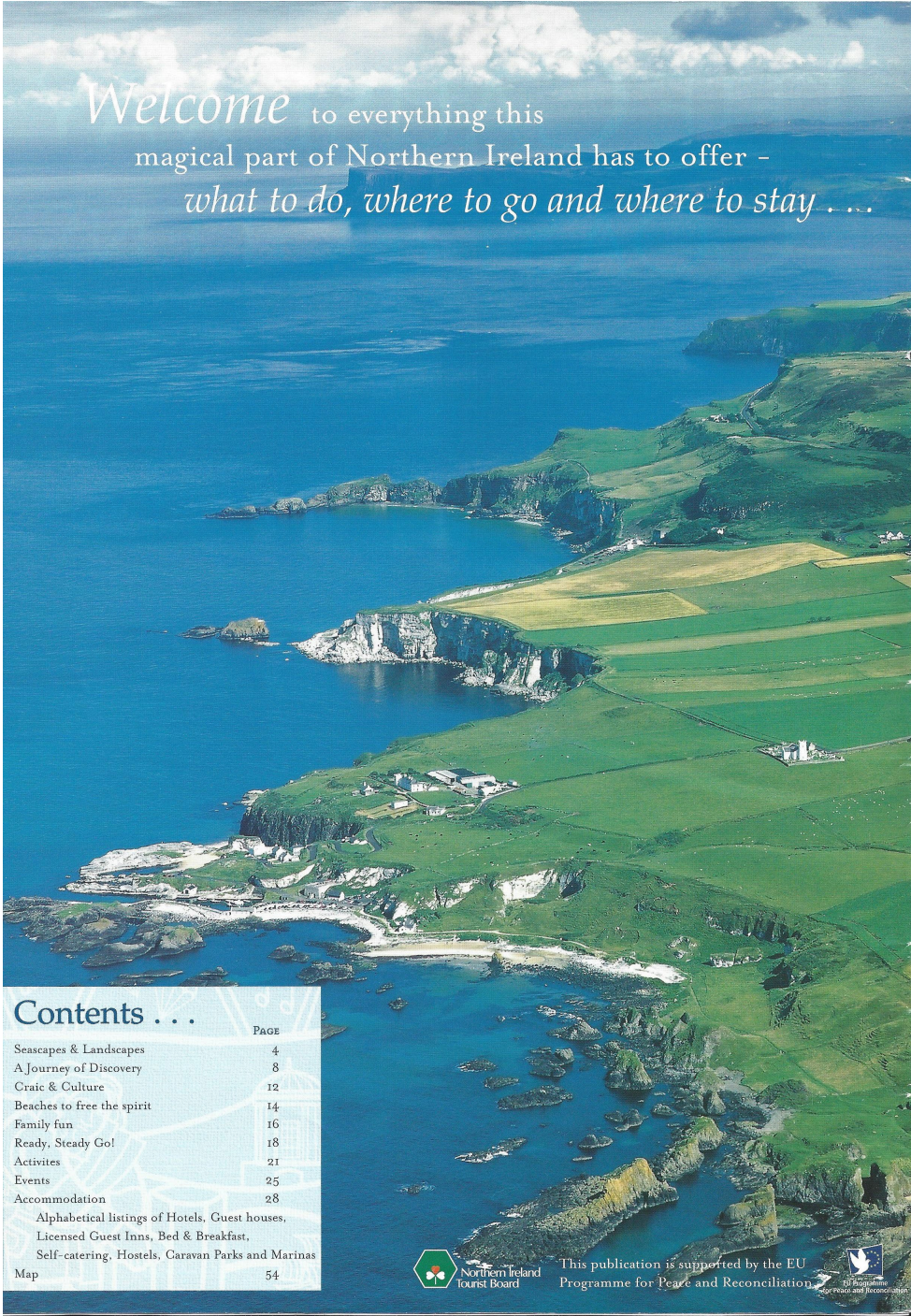
Magherafelt



Magherafelt




Magherafelt and Antrim Coast




Welcome to everything this magical part of Northern Ireland has to offer -
what to do, where to go and where to stay . . .

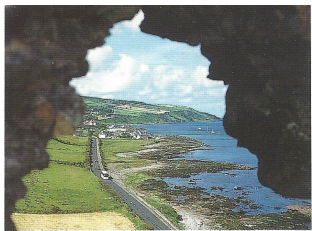
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 Northern Ireland
Tourist Board

This publication is supported by the EU
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 EU Programme
for Peace and Reconciliation



Antrim Coast Road

On goes the road under bridges
and arches, past bays and beaches
and strange rock formations

Their very names conjure up mystery and romance: *Glenarm* 'glen of the army'; *Glencloy* 'glen of the dykes'; *Glenariff* 'glen of the plough'; *Glenballyemon* 'Edwardstown Glen'; *Glenaan*, 'glen of the little fords'; *Glencorp* 'glen of the dead'; *Glendun* 'brown glen'; *Glenshesk* 'glen of the sedges' (reeds); and *Glentaisie*, named after Taisie, princess of Rathlin Island.

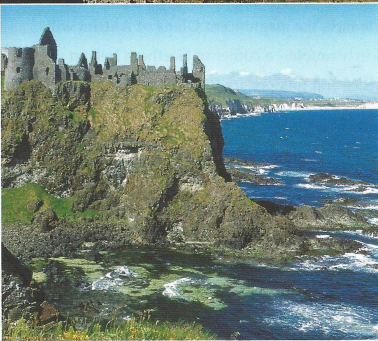
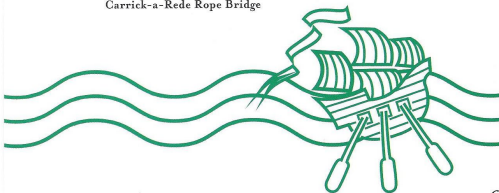
Wild in their beauty each glen deserves a visit, but above all else don't miss Glenariff, the 'queen' of the glens with its gushing waterfalls

and scenic path skirting the sheer sides of the plunging gorge.

Stay a while in **Cushendall**, the "Capital of the Glens", before moving on to the National Trust Village of **Cushendun** where pretty Cornish style cottages line the streets. This too is the starting point for the cross country route to Ballycastle. Be careful not to fall prey to **Loughareema**, the mysterious "vanishing lake", watery grave to coach and horses throughout the ages.




Carrick-a-Rede Rope Bridge




Dunluce Castle


Erecting the bridge



A large team of climbers, engineers and wardens is needed to put the bridge up every spring. Here the bridge is prepared for erection.




Rope access specialists have the hair-raising adventure of being the first to cross the chain as they attach the carrier ropes.




Finally the bridge is winched across the gap, doing the carrier ropes and attached to the island.


Safety Advice


- Wear appropriate footwear.
- Take care close to dangerous cliff edges on the island.
- Children must be supervised at all times.
- Take care on stoned paths and steep slippery steps.
- Keep dogs on leads at all times.
- Dogs are prohibited from crossing the bridge.
- The number of people crossing the bridge at any one time may be limited. Please follow the warden's instructions.

 A wheelchair accessible platform, with telescopes, is located half way along the path providing an early view of the bridge. Toilets and tea room both have wheelchair accessibility.

Cross the Bridge Certificate
For those of you who are brave enough to cross the bridge certificates are available as evidence of your bravery! (For a small donation to the Trust). Please ask a National Trust warden.

 **Rope Bridge**
Open early spring to late Sept (weather permitting) daily 10-6pm (July / August daily 9.30am-7.30pm).

 **Tea room**
Call in and treat yourself to a delicious cappuccino, latte or pot of tea. Indulge in a tasty party or for something more filling, why not sample our homemade Carrick-a-Rede bread, toasted sandwich, paninis and sausage rolls. (Take out also available). Open early spring to late September (weather permitting).



 **Car & Cycle Park**
Open all year round. Your car park fees help to pay for The National Trust's conservation work in North Antrim.

Other local
NATIONAL TRUST
properties...

Whitepark Bay
...picturesque beach and bay 2 miles/3 km west
Manor House Guesthouse/Ballycungam
...Rathlin Island, ferry from Ballycastle 5 miles/8 km east
Giant's Causeway
...famous rock formations 7 miles/11 km west
Fairhead & Murlough Bay
...viewpoint and picturesque bay 10 miles/16 km east
Cushendun
...pretty, unspoilt village 20 miles/32 km east
Portstewart Strand
...2 miles of sandy beach 15 miles/24 km west
Heslett House
...thatched 17th century cottage 22 miles/35 km west
Downhill & Mussenden Temple
...historic estate 25 miles/40 km west

The National Trust is a charity and depends on your support. We have looked after this property since 1967. Properties like this are expensive to run and because we are separate from government we depend on our members and visitors for our income. If you would like to join us as a member, or would welcome more information about the National Trust, please see one of the property staff or telephone 028 2073 1582.

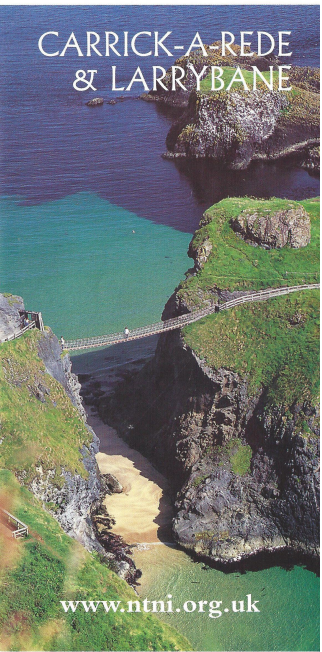
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This leaflet has been printed on 100% recycled paper.


THE NATIONAL TRUST

CARRICK-A-REDE & LARRYBANE




www.ntni.org.uk


some birds to spot...




RAZORBILL



KITTIWAKE

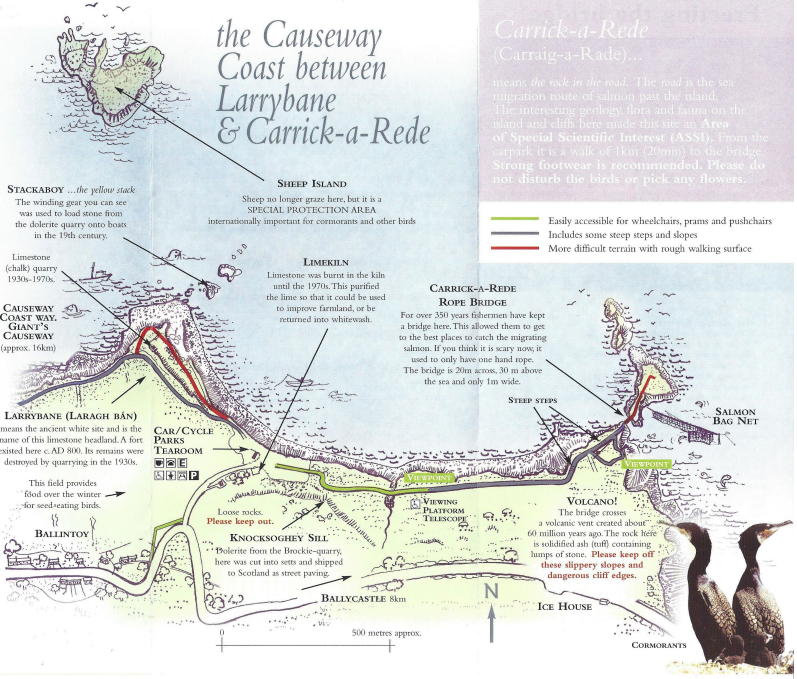


FULMAR



GUILLEMOT
These birds breed here between April and July

the Causeway Coast between Larrybane & Carrick-a-Rede



STACKABOY ...the yellow stack
The winding gull you can see was used to load stone from the dolerite quarry onto boats in the 19th century.

SHEEP ISLAND
Sheep no longer graze here, but it is a SPECIAL PROTECTION AREA internationally important for cormorants and other birds

LIMEKILN
Limestone was burnt in the kilns until the 1970s. This purified the lime so that it could be used to improve farmland, or be returned into whitewash.

CARRICK-A-REDE ROPE BRIDGE
For over 250 years fishermen have kept a bridge here. This allowed them to get to the best places to catch the migrating salmon. If you think it is scary now, it used to only have one hand rope. The bridge is 20m across, 30m above the sea and only 1m wide.

STEEL STEPS

SALMON BAG NET

VOLCANO!
The bridge crosses a volcanic vent created about 60 million years ago. The rock here is solidified ash (tuff) containing lumps of stone. Please keep off these slippery slopes and dangerous cliff edges.

ICE HOUSE

CORMORANTS

VIEWING PLATFORM TELESCOPE

KNOCKSOGHRY SILL
Dolerite from the Brockle-quarry, here was cut into sets and shipped to Scotland as street paving.

BALLYCASTLE 8km

LARRYBANE (LARAGH BÀN)
mean the ancient white site and is the name of this limestone headland. A fort existed here c.AD 800. Its remains were destroyed by quarrying in the 1930s.

CAUSEWAY COAST WAY, GIANT'S CAUSEWAY (approx. 16km)

Limestone (chalk) quarry 1930s-1970s

LOOSE ROCKS
Please keep out.

CAR / CYCLE PARKS, TEAROOM

THIS FIELD PROVIDES FLOOD OVER THE WINTER FOR SEED-EATING BIRDS

0 500 metres approx.

LEGEND:
— Easily accessible for wheelchair, prams and pushchairs
— Includes some steep steps and slopes
— More difficult terrain with rough walking surface



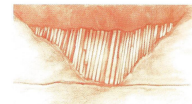
3.The **WISHING CHAIR**
Located in the Middle Causeway



4.The **CHIMNEY TOPS**
On a headland east from the Causeway Stones



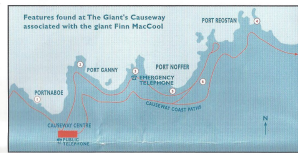
5.The **GIANT'S BOOT**
Situated in the middle of Port Noffer



6.The **ORGAN**
Situated in the cliff face above Port Noffer

to the **WELCOME GIANT'S CAUSEWAY**

Leaving the Causeway Visitor Centre, on the Finn MacCool Trail, can you find some of these features associated with this mythological giant. These can be identified in sequence as you walk (all these features are enlarged to make it easier for you to find them).



1.The **CAMEL**
Is found sitting in Portnaboe



2.The **GRANNY**
On the Stookans



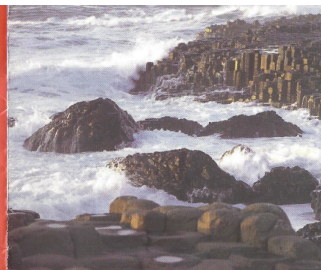
EMERGENCIES

Tel. 999. Ask for Coastguard.
You may also require Ambulance, Police.
Emergency telephone at Giant's Causeway
Public Telephone - at approach road to Giant's Causeway Visitor Centre.

Useful Contacts

Moyle District Council
(Tourism Information):
Visitor Centre 028 2073 1855
Ballycastle 028 2076 2225
National Trust Wardens 028 2073 1582
National Trust Shop 028 2073 2972
Ulsterbus (Coleraine) enquiries 028 7034 3334

Service 172 is the main coastal bus route.
Others run in the summer.



to the **WELCOME GIANT'S CAUSEWAY**



A World Heritage Site,
National Marine Reserve,
and Area of Special
Scientific Interest

Advice for your safety and
enjoyment during your visit



THE NATIONAL TRUST



STAY SAFE!

THE NATIONAL TRUST

Although it is a popular tourist attraction, the Giant's Causeway,
and its surroundings, can present hazards to the unwary

Risk areas at the Causeway



For your safety:

- Keep off black rocky areas on the Causeway stones and shoreline - big waves occur here in all weathers.
- The Causeway stones are uneven and slippery.
- Beware of falling rocks from the cliffs.
- Keep children closely supervised.
- Keep to paths and back from cliff edges, especially when it is windy.
- Do not climb on cliffs of slopes.
- Wear sensible outdoor clothes and footwear.



Photographs reproduced courtesy of the National Trust and the Maritime and Coastguard Agency.

Coleraine Borough Council

BALLYREAGH
GOLF COURSE

BYE-LAWS

- 1. Every person must obtain a ticket before commencing play.
- 2. Every person must have a bag of clubs.
- 3. All players must use the teeing mats provided.
- 4. No more than four people are permitted to play together.
- 5. One ball matches have no priority on the course.
- 6. Golf trolleys and high heel shoes must be kept off tees and greens.
- 7. All divots and pitch marks must be replaced and repaired.
- 8. No practising on the course is permitted, unless accompanied by the professional.
- 9. All patrons using the course must keep their tickets for inspection.
- 10. Please try and keep the course clean and tidy by using litter bins provided.

THANK YOU!

LOCAL RULES

- 1. Area marked with G.U.R. - You may lift and drop without penalty.

OUT OF BOUNDS

- 1. Over the fence alongside the road, at the 2nd, 3rd and 4th holes.
- 2. Over the fence surrounding the Caravan Site on the 7th and 8th holes.

LATERAL WATER HAZARD

- 1. Should your ball lie in the stream, you may drop your ball not nearer the hole and incur one shot penalty.

Player

Date

Competition

Handicap

Marker's Score	Hole No.	Metres	Par	Gross Score	Stroke Index	Nett Score	W H L	O Pts.	Marker's Score	Hole No.	Metres	Par	Gross Score	Stroke Index	Nett Score	W H L	O Pts.
5	1	120	3	5	11	6				10	120	3		12			
5	2	130	3	3	9	6				11	130	3		10			
6	3	160	3	6	3	6				12	160	3		4			
5	4	149	3	4	5	5				13	149	3		6			
4	5	120	3	4	13	6				14	120	3		14			
4	6	118	3	5	15	6				15	118	3		16			
4	7	95	3	5	17	6				16	95	3		18			
6	8	140	3	5	7	5				17	140	3		8			
4	9	180	3	2	1	6				18	180	3		2			
		1212	27								2424	27					
Total							Player's Signature							Total			
Handicap							Marker's Signature							Handicap			
Nett Score							Nett Score							Nett Score			

★ AVOID SLOW PLAY ★ REPLACE DIVOTS ★ REPAIR BALL-MARKS ★



Antrim Coast



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Sadie's birthday, Carrickfergus



Sadie's birthday, Carrickfergus



Sadie's birthday, Carrickfergus



Sadie's birthday, Carrickfergus



Sadie's birthday, Carrickfergus



Sadie's birthday, Carrickfergus



Sadie's birthday, Carrickfergus





Sadie's birthday, Carrickfergus



Sadie's birthday, Carrickfergus



Sadie's birthday, Carrickfergus, and at Castlerock



At Castlerock



At Castlerock



At Castlerock



At Castlerock



At Castlerock



Coleraine restaurant



Coleraine restaurant



Coleraine restaurant



Coleraine restaurant



Coleraine restaurant



Coleraine restaurant



Castlerock



Dungannon



15. Schoolhouse - Castletown National School, built in 1845, was moved from its original site and re-erected.

16. Mountjoy Post Office - Moved to the Folk Park from nearby Mountjoy Village, where it was used as a Post Office from 1861 until the early years of the 20th century. It is complete with a Victorian letterbox.

17. Ulster Street - A recreation of 19th century shops, using restored Victorian shop fronts, which were brought in from local towns and villages. The shops include Hill's Chemist and Blair's Printers, originally from Strabane and Reilly's Spirit Grocers, from Newtownbutler. The street also includes a Saddlers shop and Ropeworks.

18. Ship and Dockside Gallery - Here you board the Brig Union, an exact replica of an early 19th century sailing ship. The Dockside buildings are original. The Merchant's office is from Great George's Street in Belfast, while an 18th century house from Bridge Street in Derry represents the type of boarding house available prior to setting sail for the New World. Exit 'Jewen decks' and pass through the Arrivals Area.

19. The American Street - Based on a 19th century American streetscape representative of ports such as Baltimore and Boston. It features a General Store, Tinsmith's Exhibition, a replica of the First Mellon Bank and a Wheelwright's Shop.

20. Samuel Fulton Stone House - This stone building from Lancaster County, Pennsylvania was the home of Samuel Fulton. Samuel emigrated from Donegal and settled in Lancaster County in 1724.

21. The Log Cabin - The type of cabin built or occupied by early emigrants such as the young Thomas Mellon and his family when they first arrived in America. (R)

22. The Pennsylvania Log Barn - The main outbuilding on the frontier farm, used for housing animals and storing fodder crops. (R)

23. Corn Crib - A small store house for Indian corn (maize). (R)

24. Smoke House - Used for smoking meat and fish. (R)

25. Spring House - Used for keeping dairy produce fresh. (R)

26. Pennsylvania Log Farmhouse - A replica of a six-roomed dwelling which was built by Thomas Mellon and his father, four years after arrival in Pennsylvania. (R)

24 & 26

28 & 29

28. Cunningham Springhouse - Part of the original Cunningham farmstead from Allegheny County, Pennsylvania. The cool spring water kept milk and other perishable foods from spoiling.

29. Western Pennsylvania Log House - This 19th century dwelling was originally built on the Cox family farm, Greene County, Pennsylvania by Uriah Hupp. The three room log house is a well-preserved example of American vernacular log housing.

30. The Centre for Migration Studies / Library. The Centre supports the Park's main activities by providing reference resources for the study of the history of both the United States and Ulster in the 18th and 19th centuries and the link between the two. Researchers, students and the general public are welcome.

w w w . f o l k p a r k . c o m

2002

The Ulster American Folk Park

Map & Guide

Welcome to the ULSTER AMERICAN FOLK PARK
an open air museum which tells the story of emigration from Ulster to North America in the eighteenth and nineteenth centuries.
The Old World and New World layout illustrates the various aspects of emigrant life on both sides of the Atlantic.
This map will help you find your way around the museum site and ensure that you have an enjoyable visit. Simply follow the numbered sequence on the map and the directional signs in the grounds.

MAGNI
National Museums & Galleries of Northern Ireland

2 Mellon Road, Castletown, Omagh, Co. Tyrone, N. Ireland. BT78 5GJ

1. Matthew T. Mellon Information Centre - with ticket desk, gift shop, toilets and other visitor facilities. Your visit begins and ends here.

2. 'Emigrants Exhibition' - Make your way to the Exhibition Gallery through the entrance marked 'Gallery and Outdoor Museum'. 'Emigrants' - This major exhibition tells the story of over 200 years of emigration and is divided into four principal sections.
People and Places - Stories of individual emigrants.
Failure and Opportunity - The history of emigration.
Transport and Migration - Details of routes, ports and ships.
Survival and Prosperity - An insight into life in the New World.
Follow the signs for the Outdoor Museum and make your way to the Old World Area, where you will meet costumed guides. Do not hesitate to ask questions.

3. Single Room Cabin - A one roomed dwelling with bed outshot. This building came from the Sperrin Mountains and dates from the late 18th century. An example of the type of dwelling occupied by many of the landless poor in the pre-Famine period.

4. Forge - A typical blacksmith's forge of the 19th century where you will see demonstrations of the blacksmith's craft. (R)

5. Weaver's Cottage - The type of house in which a 19th century weaver would have lived and worked. (R)

6. Meeting House - A replica of the Presbyterian Church at Mountjoy in which Thomas Mellon worshipped as a boy. Press the button on the pulpit for taped commentary on the building. (R)

7. Vestry - The vestry was the minister's study. (R)

N.B. Please take care crossing the public road.

8. Mellon Homestead - The birthplace of Judge Thomas Mellon, who, in 1818 at the age of five, emigrated with his parents to Pennsylvania. The house stands on its original site.

9. Viewpoint - Views of the River Strule and the Sperrin Mountains. Take the return path to the Folk Park.

10. Campbell House - The home of the Campbell brothers of Aghalane, Plumbbridge, who emigrated to America in the early 19th century. Robert Campbell became a fur trader in the Rocky Mountains and later a successful merchant in St. Louis, Missouri.

11. Tullyallen Mass House - Built in 1768 and extended in 1830 after Catholic Emancipation. It has been reconstructed in its original form with plain sash windows, whitewashed walls and thatched roof.

12. Tullyallen Field - Planted with traditional crops.

13. Turf Bank - Turf cutting exhibit.


14. Hughes House - The boyhood home of John Joseph Hughes, the first Roman Catholic Archbishop of New York. The building comes originally from the townland of Derravea in County Monaghan. Please see back page to continue.


Contact Telephone Numbers:
Education Services / group bookings 028 8225 6320
Marketing and public relations 028 8225 6330
Curatorial donations 028 8225 6340
Centre for Migration Studies 028 8225 6318
Museum Restaurant / Residential Centre 028 8224 0918
Main switchboard and recorded information 028 8224 3252




Admission Times:
April to September:
Monday - Saturday 10.30am - 4.30pm, museum closes 6.00pm. Sundays and public holidays, 11.00am - 5.00pm, museum closes 6.30pm.
October to March:
Monday - Friday 10.30am - 3.30pm, museum closes 5.00pm. Closed weekends and public holidays.
All the buildings in the Folk Park are original structures except those indicated above as (R) which are replica buildings.
Sorry guide dogs only.

1. Recommended Route
2. Old World Area
3. Streets and Ship Gallery
4. New World Area

31. Museum Restaurant and Residential Centre. Open daily for snacks and full meals.



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


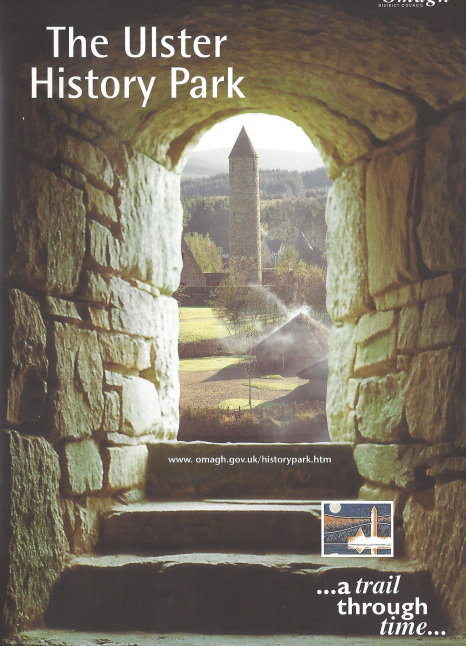




The Ulster History Park

Opening Times
April – June & September Daily
 10:00am – 5:30pm
July & August Daily
 10:00am – 6:30pm
October – March Mon – Fri
 10:00am – 5:00pm
 Last Admission:
 One hour before closing time
 Sorry, no dogs except guide dogs


...a trail through time...

 THE ULSTER HISTORY PARK
 Cullinstown OMAGH, Co Tyrone
 Tel: 028 8164 8188 email: uhp@omagh.gov.uk
www.omagh.gov.uk/historypark.htm


 An Omagh District Council Tourist Facility



The Ulster History Park

www.omagh.gov.uk/historypark.htm


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www.omagh.gov.uk/historypark.htm

...a trail through time...

THE ULSTER HISTORY PARK

Crannóg

Artificial, defended island settlement constructed in the early medieval period. Crannógs are high-status, aristocratic sites. They were occupied until the end of the sixteenth century. They are mainly found in the drumlin belt stretching from north Connacht through south Ulster into north Leinster.

Fulacht Fiadh

Literally, 'cooking place of the deer'. These cooking places date to the Bronze Age but they also feature in the heroic literature of medieval Ireland. They are found throughout the country.

Field

Enclosed fields were a feature of early medieval Ireland. Different types of field fences are described in the seventh-century *Law of Neighbourhood* called *Bretha Comairbhesa* in Irish.

Rath

Protective, enclosed settlement of the early medieval period. Rathes were the farmsteads of the prosperous farmers and aristocracy. Some contain souterrains, underground passages or chambers used for refuge and/or storage. Rathes are the most numerous monument type in Ireland and are found throughout the country.

Stone Circle

A ritual enclosure of the Bronze Age. Stone Circles occur in two main concentrations – in mid-Ulster and in south-west Munster. Some have small burial cairns in the centre. They vary considerably in size.

Standing Stone

Can be a grave marker or boundary marker from almost any period. Single standing stones are found throughout Ireland, while alignments of stones are found in the south-west in particular.

Wedge Tomb

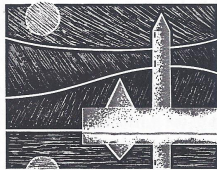
A type of megalithic tomb dating to the late 3rd – early 2nd millennium BC. Built at the end of the Stone Age / beginning of the Bronze Age. They are so called because of their wedge-like shape. They are found mainly in the western half of Ireland.

Early Monastery

Distinctively Irish church settlement of the early medieval period. Most early church settlements were timber-built with earthen-bank enclosures. By the tenth and eleventh centuries more were being built in stone. They are found throughout Ireland.







THE ULSTER HISTORY PARK

ABOUT THE PARK

WELCOME

Welcome to the Ulster History Park. The Park traces the history of settlement in Ireland from the time of the first people to arrive here, nearly 10,000 years ago, through to the seventeenth century A.D. In the Park you can see full-scale models of the houses and other monuments that people built at different times through the 10,000 years. Huts, houses, megalithic tombs, a stone circle, an artificial island settlement, a round tower, a corn mill - these are some of the reconstructions you can see - and enter - in the History Park. The Park is laid out clockwise, so you can start at the beginning and trace your way forward in time. Or, you can go backward in time, starting at the Plantation settlement and peeling back the layers like the skins of an onion. The choice is yours. Whichever way you go around the Park, we hope you enjoy your visit. If you have any queries, the staff will be only too pleased to help you.

MESOLITHIC CAMP

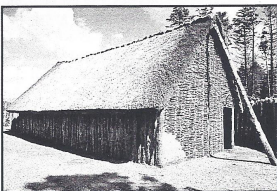


[Mesolithic = middle stone age c. 8000 B.C. - 4000 B.C.]

The first human settlers arrived in Ireland some ten thousand years ago, around 8000 B.C. They probably came across the North Channel from northern Britain. These first inhabitants of Ireland were hunters and gatherers: they lived by

hunting, fishing and gathering wild fruits, seeds and nuts. Wild pigs seem to have been the largest animals that they hunted in the earliest stages of settlement; later, they hunted red deer, possibly using dogs to assist them. They took salmon, trout and eels from the rivers and sea-bass and flounder from the estuaries. They also ate pigeon, duck and grouse, as well as hazel nuts, water-lily seeds and wild apples. The first settlers in Ireland lived along the coasts and in the river valleys. They lived a fairly transient existence, moving about from place to place according as food supplies became scarce here and plentiful there. Because they were not settled in one place, their dwellings were fairly flimsy - simple huts covered with animal skins or, possibly, tree bark. The huts in the Ulster History Park are based on evidence excavated at Mount Sandal, near Coleraine, County Londonderry. This hunter-gatherer way of life lasted in Ireland for about 4,000 years.

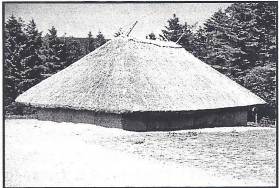
NEOLITHIC HOUSES



[Neolithic = new, or late, stone age c. 4600 B.C. - 2300 B.C.]

Three things in particular distinguish the Neolithic period from the Mesolithic age which went before: farming, the use of pottery, and a settled way of life. The earliest evidence for farming anywhere in the British Isles comes from County Tyrone, around 4600 B.C. Ireland was thickly wooded and the first farmers had to clear the forests to create fields in which to graze cattle and sheep, and in which to cultivate wheat and barley. These early farmers also

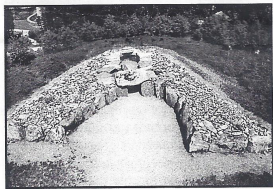
continued to hunt, fish and gather hazel nuts, fruits and berries. People who tilled the land and reared animals needed to settle in one place, and the first farmers in the land built themselves sturdy houses. The earliest houses had walls made of split oak logs set upright in the ground and roofs of thatch. They were square or rectangular in shape. A number of houses of this type have been excavated in different parts of Ireland - in County Tyrone, County Mayo, County Antrim and County Limerick, all dating to the fourth millennium (4000 - 3000) B.C. The rectangular house in the History Park is based on that excavated at Ballyglass, County Mayo while the other, square, house is based on one from Tankardstown, County Limerick. Later in the Neolithic period, between 3000 and 2300 B.C., a different technique of house building was used. While the roof continued to be thatched, the wall structure was different. The walls were not as solid as the oak-plank walls of the earlier Neolithic, but they did insulate the house better, for they were cavity walls. These walls consisted of a double row of wattle - hazel rods woven tightly together - with the space between filled with bracken or straw to provide insulation. The History Park model is based on such a house excavated at Lough Gur, County Limerick. The pottery of the Neolithic period was fairly simple, often coarse. Unlike modern pottery, it was not wheel-thrown and was unglazed. Irish neolithic pottery is similar to that of western Europe at the time and there is little doubt that the technique of pottery-making was imported from Europe.



MEGALITHIC TOMBS

During the Neolithic period farming communities in Ireland built large stone tombs for their dead. These tombs are called *megalithic* tombs; the term *megalithic* derives from the Greek *mega*, "large", and *lithos*, "stone". Although not the only places in which people disposed of their dead in these centuries, the megalithic tombs are the most prominent burial places in the landscape. There are more than 1,450 of these tombs scattered throughout Ireland, divided by archaeologists into four main types based on their shapes. These are *court tombs*, *portal tombs*, *passage tombs* and *wedge tombs*. Originally, megalithic tombs were covered with mounds of stone called cairns, although in many instances nowadays these cairns have disappeared, leaving the main structure of the tombs exposed.

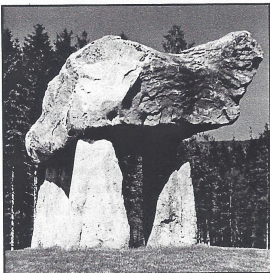
COURT TOMB



The court tomb is a type of megalithic tomb found mainly in the northern half of Ireland. There are nearly four hundred in all, many of them in County Tyrone. The court tomb is so called because of the forecourt at the entrance to the tomb which is usually at the eastern end. The tomb has a corbelled roof and two or more burial chambers. For the most part, the forecourts are semi-circular to horseshoe-shaped or oval in plan, although a few, such as the tomb at Creevykeel, County Sligo, have almost fully enclosed forecourts. A small number of sites are called dual-court tombs because they have courts and chambers set back to back, like the tomb at Audleystown, County Down. Court tombs may have served as burial places for the communities of the areas in which they were situated, and they may have been used for considerable periods of time. In general, these communities seem to have cremated their dead before placing the ashes in the tombs. Elaborate

ceremonies, including funeral feasts, may have been part of the burial rites. In general, court tombs date to the early-to-mid fourth millennium B.C. (c. 4000 - 3500 B.C.)

PORTAL TOMB



The portal tomb is often better known by the name *portal dolmen* or, more simply, *dolmen*. The portal tomb in the Ulster History Park is located on a rise between the main gate and the entrance to the reception building. The tripod portal dolmen is, for many people, the classic image of a megalithic tomb and that at Legananny, County Down, is probably the best known in Northern Ireland; in the Republic of Ireland, the best known is, undoubtedly, Poul Nabrone in County Clare. Surprisingly, perhaps, the portal tomb is the least numerous type of megalithic tomb in Ireland - only 175 are known. They are mainly distributed across the northern part of Ireland although there are some 35 in the south-east of the country and a few in County Clare and south County Galway. The portal tomb consists of a single, smallish chamber, usually narrowing towards the rear, having an entry at the eastern end between two large portal stones set inside the line of the side-stones. It is covered by a single huge capstone that often rests on the portal stones and the backstone and slopes down towards the back of the chamber. In many instances the sidestones have disappeared, leaving only the portal stones, backstone and capstone - the tripod dolmen with which we are familiar. Both cremated and inhumed remains have been found in the small number of portal tombs that have been excavated, although there is no clear indication of which was

the preferred rite of deposition. The portal tombs may date to the early - to mid-fourth millennium B.C. (c. 4000 - 3500 B.C.)

WEDGE TOMB



Wedge tombs are the most numerous type of megalithic tomb found in Ireland; there are about 470 in all, many of them in County Tyrone. For the most part, the tombs open to the west. At the front end of the tomb is a small portico or ante-chamber, behind which is the main chamber of the tomb. Wedge tombs are wider and higher at the western end, and narrower and lower at the eastern end: they are wedge-shaped, hence their name. The sides of the main burial chamber consist of a line of *orthostats* (large flat stones set upright or on edge) outside which again is usually a second line of upright stones. Large capstones resting on the orthostats form the roof of the tomb. Sometimes, the capstones were decorated with what we now call "cupmarks", hollow depressions carved in the stone and averaging five centimetres in diameter. Although the excavated evidence for burial practice is slight, it seems that cremation was the preferred rite. It is difficult to date these tombs precisely. They appear to belong to the third millennium B.C. although they may have continued in use into the second millennium - into the Bronze Age.

STONE CIRCLE

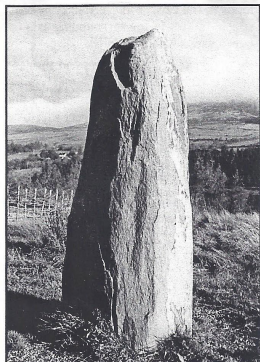
There are two great concentrations of stone circles in Ireland: one in mid-Ulster, especially in County Tyrone, and the other in Counties Cork and Kerry in the south-west of the country. They may have begun to be erected in the Neolithic period but they are generally regarded as being monuments of the Bronze Age - between c. 2500 B.C. and c. 600 B.C. The stone circles in Ulster differ from those in Munster: the northern circles are



composed of many, smaller, stones, while those in the south-west have fewer, but larger, stones. The northern stone circles often occur in groups and several also have straight rows of stones projecting from them. Many of the circles have burials within them. The most impressive group of stone circles is that at Beaghmore, County Tyrone, where there is a complex of straight rows, small burial cairns and seven stone circles.

Although a number of sites have been excavated, we still do not really know what stone circles were "for". It seems likely, however, that they played some role in the spiritual life of their builders, although what that role may have been, we cannot say.

STANDING STONE



Single standing stones occur throughout Ireland and have been erected in every age, from the Neolithic period down to the present. They are enigmatic monuments and individual standing stones are often impossible to date. They seem to have had a number of functions. Some mark prehistoric burial places. Others may have been erected as boundary markers. Many, especially the more recent stones, were put up as scratching

posts for cattle. We cannot tell, simply by looking at a standing stone, what it was erected for, and excavation often provides no explanation. Some standing stones may have been erected for reasons we can only guess at.

FIELD



In the Early Christian Period, between c. A.D. 450 and 1150, fields were enclosed by four different types of fence: a stone wall, a ditch, an oak fence and a post and wattle fence. A law text of the mid-seventh century describes how the post and wattle fence should be made. It should be 12 fists high, i.e., 6 feet or 1.80 metres (1 fist = 6 inches = 15 cm.). It has three courses of wickerwork, one at the bottom, one in the middle and one on top. The posts are pushed into the ground and tapped down with three blows of a mallet; they are smooth on top. The posts extend 3 fists (45cm.) above the wickerwork and the fence has a crest of blackthorn on it. The law says that the fence should be effective against both small and full-grown animals. The field fence in the History Park was constructed from this description.

RATH



The rath was the homestead of the prosperous farmer in the Early Christian Period. Typically, it was a circular area about 30 metres in diameter surrounded by an earthen bank and ditch with a palisade fence on top of the bank. Some raths had two banks and ditches and a few had three. Within the enclosure were the

house and other buildings. While house types vary, most were made of wood and were usually of post and wattle construction. The houses in the History Park rath are based on houses excavated near Glenarm in County Antrim and consist of two circular rooms joined together. The walls of the houses consist of a double row of wattle spaced about 20 cm. apart with the cavity filled with straw and bracken for insulation. The roof was thatched with straw.

Also in the rath is a *souterrain*, an underground passage with chambers off to the left and right. Not all raths had souterrains. Some souterrains were tunnelled into the clay and had very narrow creepways between chambers. The entrance to the souterrain was usually very carefully concealed. It is uncertain what the souterrain was used for: because it was hidden, it may have been used by the farmer and his family as a refuge in troubled times; alternatively, it may have been used for storage.

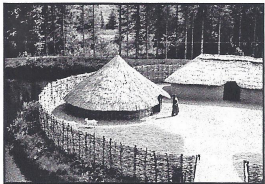
FULACHT FIADH



The Irish term *fulacht fiadh* means "cooking pit of the deer". These sites are found throughout Ireland but are most numerous in the south-west. The Fulacht Fiadh was used as follows. The pit, its sides lined with stone slabs or timber planking, was filled with water. A large fire was lit off to one side and small stone boulders were heated in it. When these were hot they were transferred to the pit of water. In this way, the water could be brought to the boil in thirty or forty minutes. By occasionally adding more hot stones from the fire, the water could be kept simmering for hours and a joint of meat, wrapped in a straw rope, could be boiled in it.

The fulacht fiadh gets its name from medieval Irish literature where it features in tales of hunting. However, the sites themselves have been dated to the Bronze Age, nearly 2,000 years before they feature in the medieval tales.

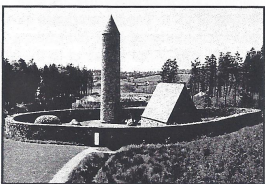
CRANNOG



A crannog is an artificial island usually built in a lake. People have used small islands in lakes as places from which to fish or hunt wildfowl since the time of the first settlers in Ireland, and they may also have used them as places of refuge. Although some of these small islands were added to in order to create platforms, especially in the late Bronze Age, they were not true crannogs. A true crannog is an artificial, or substantially artificial, island surrounded by a palisade and containing a proper dwelling. True crannogs were built in the Early Christian Period and continued to be used, or were reused, in succeeding centuries down to the seventeenth century.

Crannogs are defensive sites, built and occupied by the nobility and aristocracy, people who had something to fear. They could be reached only by boat or across a submerged causeway. Some crannogs, such as Lagore in County Meath and Cro-Ins in Lough Ennel in County Westmeath, were royal sites. In the later middle ages, some crannogs, such as Island McHugh in County Tyrone, had stone castles called tower houses built on them.

EARLY MONASTERY

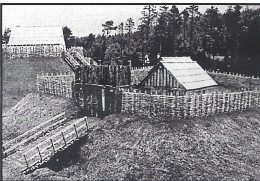


After Christianity came to Ireland in the fourth or fifth centuries, the church in Ireland developed along different lines to the way it developed elsewhere in Europe. The early Irish monastery contained one or more very small churches and

individual cells for the monks. Other buildings included a kitchen, refectory, scriptorium, guest house and agricultural buildings. For the most part, all the buildings, including the churches, were constructed of timber. In general, it was only in areas where timber was not available, particularly along the western seaboard, that stone was used. Elsewhere, stone churches were very rare before the eleventh and twelfth centuries. The buildings of the monastery were usually enclosed by a circular or sub-circular earthen bank and ditch.

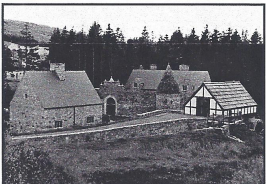
Round towers do not occur before the middle of the tenth century and they continue to be built into the twelfth century. The round tower was primarily a bell tower - it is always called a bell tower in Irish - but it was also used for the storage of valuables and as a place of refuge in time of need.

MOTTE AND BAILEY



The motte and bailey is a type of castle common throughout north-western Europe. It was brought to Ireland by the Normans in the later twelfth century. The motte is the high circular mound. The bailey is the earthen-banked enclosure at the base of the motte. Not all mottes have a bailey at the base. Both motte and bailey were usually surrounded by a deep ditch called a moat. In Ireland, most of these moats were dry; in Britain and on the continent, many moats were filled with water. The buildings on the motte and in the bailey were usually made of timber. The Irish motte and bailey castles are generally smaller than those elsewhere. There are some 350 mottes in Ireland, most of them in areas conquered by the Normans. They were strategically located to defend the newly conquered territories and were erected during the period of expansion of the colony. New motte and bailey castles ceased to be built after the year 1230 although they may have continued in use for some further decades.

PLANTATION SETTLEMENT



After the Gaelic Irish of Ulster were conquered at the beginning of the seventeenth century, large tracts of land were confiscated by the crown and granted to new settlers from Scotland and England. These Planters built themselves new settlements and established new towns in Ulster. Many of the new settlements consisted of several stone and timber-framed houses built close to a large, strongly defended main house called a bawn. The bawn consists of a manor house facing onto a courtyard that is enclosed by thick high walls. For added defence there are no windows in the exposed walls of the house. Flanking towers on the corners have very narrow slits called loops through which pistols and muskets can be fired. There are also loops in the bawn wall. In the event of attack, settlers in the surrounding area would seek protection in the bawn.

At the corn mill, the settlers had their grain ground into flour. The mill was water-powered. Water, released from the mill-pond, turned the mill-wheel which, through a simple gearing mechanism, rotated the grinding stones.



Historical Park



Historical Park



Historical Park



Historical Park



Fri. Aug.15
Fly EJ483 from LHR-EDI

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

TRAVELS NOW AND THEN

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SCOTLAND 2003

IRELAND 2003

Ireland Aug., 2003.

Fri. Aug.1 D+C, K+fam: Fly UA934 LAX-LHR, 6.10pm-12.40am
Dana: Fly BA66 PHL-LHR, 7.00pm-7.05am

Sat. Aug.2 D+C, K+fam: Arr. LHR 12.40am. Fly BD088, LHR-BHD, 3.20pm-4.35pm
Dana: Arr. LHR 7.05am. Fly BD082, LHR-BHD, 8.55am-10.10am
Drive to 56 Belvedere Park, Castlerock (Colin will have the key)

Sun. Aug.3

Mon. Aug.4

Tues. Aug.5

Wed. Aug.6

Thur. Aug.7

Fri. Aug.8

Sat. Aug.9

Sun. Aug.10

Mon. Aug.11

Tues. Aug.12

Wed. Aug.13

Thur. Aug.14

Fri. Aug.15 D+C: Fly EJ483, BFS-EDI, 6.45am-7.40am (E2CLLGP)
Kath: Dep. BHD at 6.45am. Fly UA, LHR-LAX
Dana: BD085, BHD-LHR, 11.10am-12.25pm, BA69, LHR-PHL, 4.15pm-7.10pm
D+C: Alamo Rental Car (14670116) Drive to Jedburgh (51 miles)
Stay Meadhon House, 48 Castlegate (577025)

Sat. Aug.16 Edinburgh. Drive to Kinross (27 miles) ✓ 13
Stay with Adele and Bruce at Dulciana, Bishop Terrace, Kinnesswood.

Sun. Aug.17 Drive to Fort William (121 miles)
Stay at Best Western Glenspean Lodge, Roy Bridge (637455809)

Mon. Aug.18 Drive to Isle of Skye (124 miles)
Stay at Flodigarry Hotel, Staffin

Tue. Aug.19 Drive to Inverness (114 miles)
Fly EJ192, INV-Luton, 4.15pm-5.45pm (E2CLLNH)
6.15pm National Express bus to Heathrow?
~~No hotel booked yet~~ LE MERIDIEN HOTEL (THREE MAGPIES)

Wed. Aug.20 D+C: Fly UA935 LHR-LAX, 10.55am-2.15pm

Fri. Aug.15

Fly EJ483 from LHR-EDI



Jedburgh, Scotland



Jedburgh, Scotland



Jedburgh and Edinburgh, Scotland



Edinburgh, Scotland



Edinburgh, Scotland



Edinburgh and the Highlands, Scotland



Eilean Donan Castle and Highland Cattle, Highlands of Scotland.



Flodigarry Hotel, Skye./I>



Flodigarry Hotel, Skye./I>



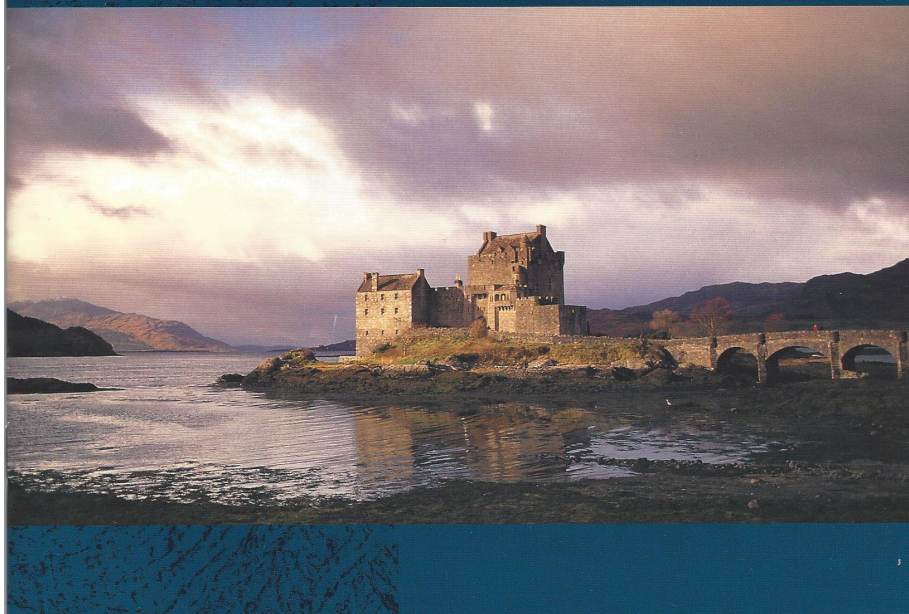
Flodigarry Hotel and other, Skye./I>



Isle of Skye and Loch Ness./I>

Eilean Donan Castle

OFFICIAL GUIDE



EILEAN DONAN CASTLE

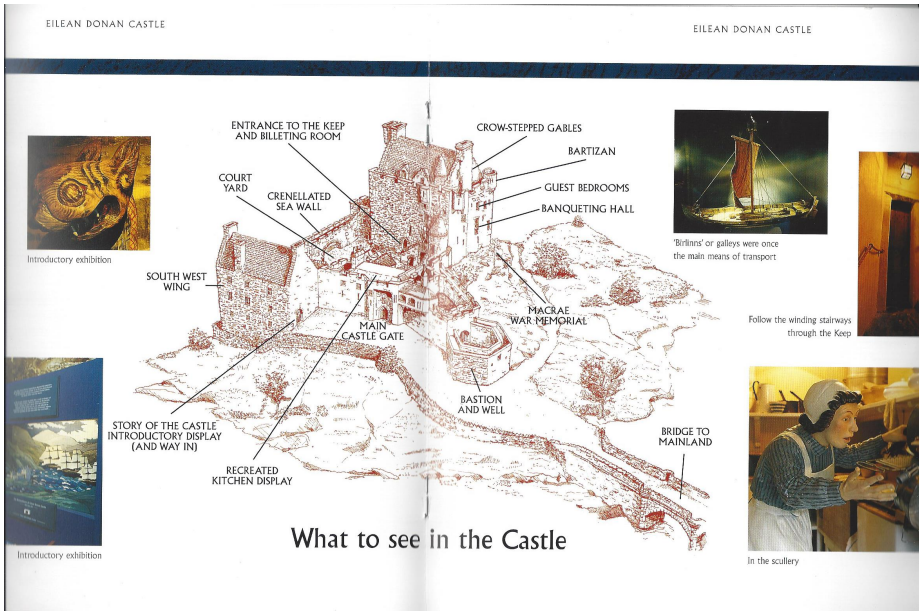
EILEAN DONAN IN NAME

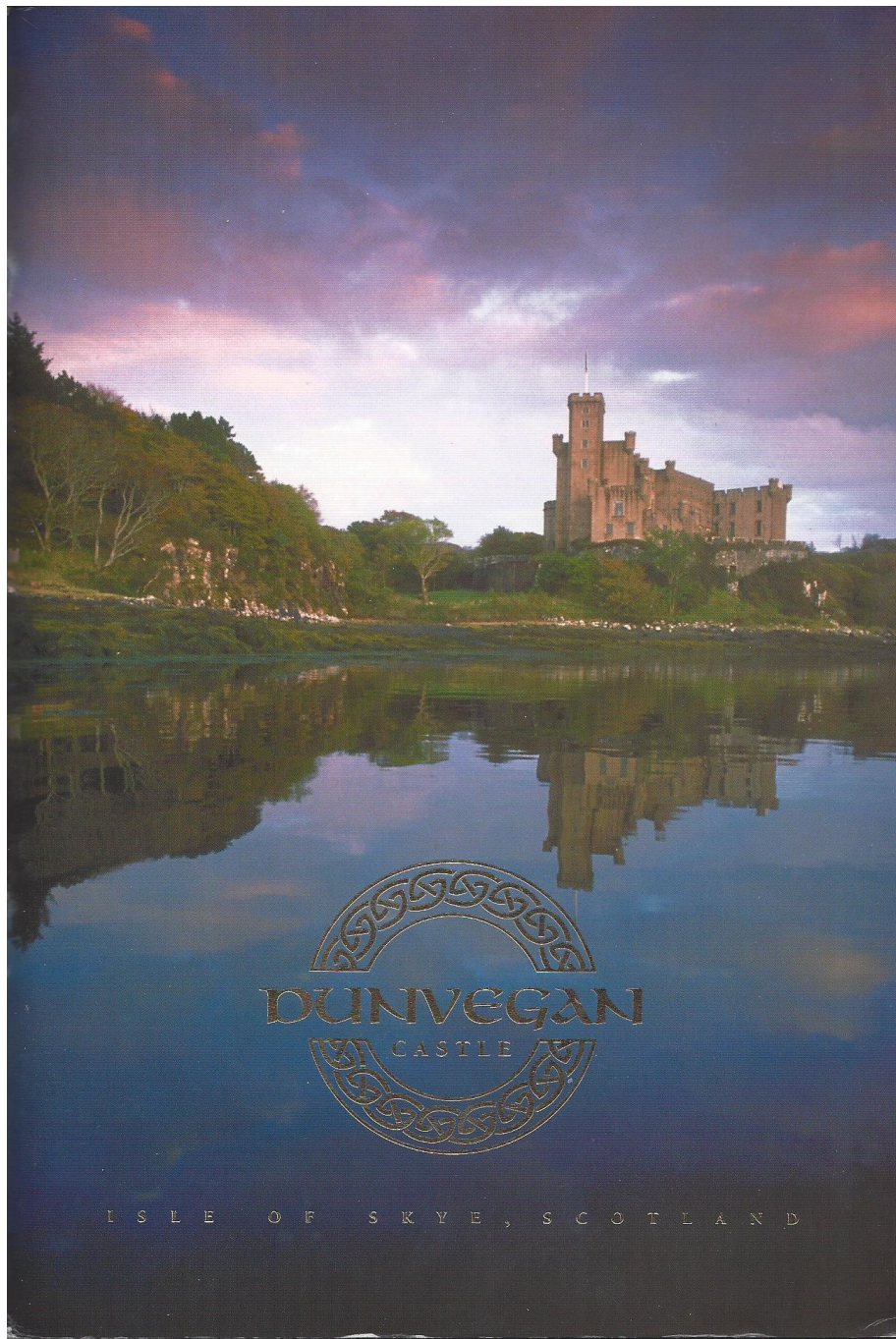
The name *Eilean Donan*, or island of Donan, is most probably called after the 6th-century Irish saint, Bishop Donan, who came to Scotland about AD 580. There are several churches dedicated to Donan in the area and it is likely that he, or later Early Christians who followed his teachings, formed a small cell or community on the island during the late 6th or 7th century.

There are, of course, other stories which survive about the island. Perhaps the most attractive tells that it was named from the Gaelic term *Cu-Donn* meaning otter (brown dog). It describes the King of the Otters, who was recognised by his fine coat of pure silver and white, and tells of the time when he died and his 'glittering robe of silver' was buried on the island beneath the foundations of the castle.

Eilean Donan Timeline

6th/7th century	The name Eilean Donan, 'island of Donan' established
late 13th century	Held by Kenneth MacKenzie
After 1362	The MacRae clan came to Kintail
16th century	Hornwork added
1511	MacRaes became Constables of the Castle
1539	Attacked by Donald Gorm MacDonald
1715	Garrisoned by Government troops but retaken by the Jacobites before the battle of Sheriffmuir
1719	Castle ruined and abandoned after bombardment by Government frigates
1911	Bought by John MacRae-Gilstrap
1912	Project to restore the castle began
1932	Completed after 20 years of reconstruction. Bridge to the island also finished
1983	Conchra Trust formed by the MacRae family to care for the castle





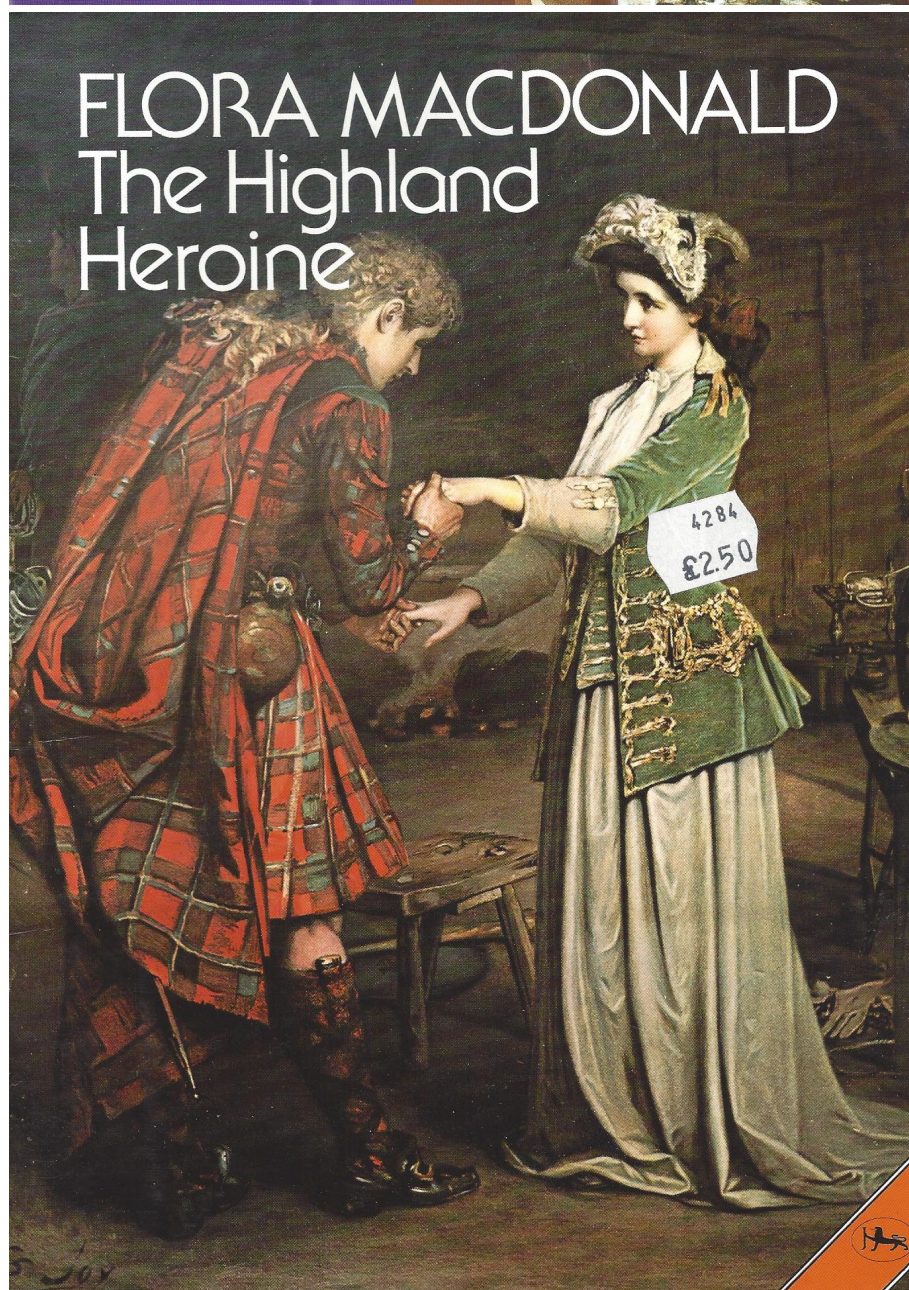


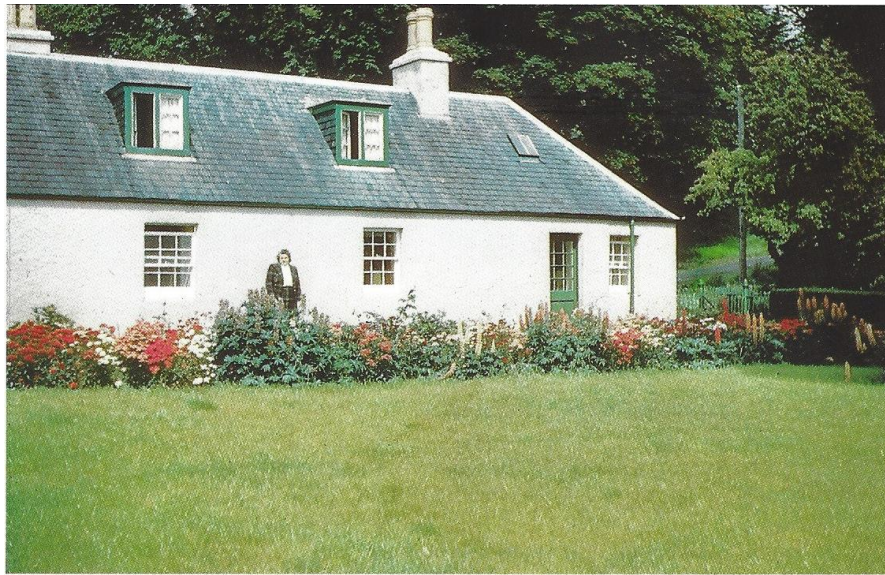
A collage of images related to the MacLeod of Dunvegan brand. It includes a map of the Isle of Skye, a woman in a yellow cloak, a man in a kilt, a woman in a white headscarf, a woman in a green jacket, a man in a suit, a woman in a brown jacket, a man in a kilt fishing, and a woman in a red dress. The text 'MACLEOD of DUNVEGAN' is repeated in several places. At the bottom, contact information is provided.

1 Lochsude, Dunvegan, Isle of Skye IV55 8WF
T. 01470 521356 F. 01470 521356

Enquiries also to:
MacLeod Estate Office, Dunvegan, Isle of Skye IV55 8WF
T. 01470 521206 F. 01470 521205
E. info@dunvegancastle.com W. www.dunvegancastle.com

PART OF THE
DUNVEGAN
CASTLE
GROUP





Above: The cottage pictured here is at Flodigarry, Isle of Skye, where Flora lived from 1750 to 1756 and where some of her family were born. Reproduced by permission of Miss F. Kelly.



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

Trip to Japan, Dec.2003 C.E.Brennen.

Dec 6 Sat Fly LAX to Narita. UA 891. Leave LAX 11.05am

Dec 7 Sun 3.55pm Arrive Narita on UA 891
Train to Ueno. Ginza line to Shibuya.
"Shibuya-Excel Tokyu Hotel" (Tel.no. 03-5457-0109)
Booked single use in Double room, normal rate 20,000yen, but

special discount 16,270yen (incl.Tax + service)
http://www.tokyuhotels.co.jp/en/TE/TE_SHIBU/index.shtml

Dec 8 Mon Toyoko line from Shibuya to Hiyoshi (12 stops?)
12.00pm Kataoka will meet me at Hiyoshi Station
Meet with the Dean - sushi lunch
1.30pm Meet with Hishida
2:00pm Lab tour and Keio facilities
6.00pm Dinner at Hiyoshi Faculty Club
7.30pm Leave for Tsuchiura via Shin-Kawasaki JR station
(Hishida will take me by car - 10min)
7:50pm Shin-Kawasaki (Yokosuka line, train named "Air-Port

Narita")
8:07pm Shinbashi (transfer to Yamanote-line)
8.12pm Shinbashi -> Ueno (by Yamanote-line) - 8:24
8.30pm Ueno (Jyouban-Line, train named "Fresh-Hitachi" Track
no.17). "Fresh-Hitachi" is limited express, so you have

to pay extra.}
9:16pm Arrive Tsuchiura Station. Dr.Iino will meet me
and take me to Hotel Marroad Tsukuba

Dec 9 Tue 9.10am Dr. Iino will pick me up at the hotel
9:30am Arrive Mech. Eng. Research Lab.(MERL),Hitachi
10.00am Review of research on
Cavitating flow (Dr. Fukaya)
Vortex cavitation (Mr. Nagahara)
Ultrasonic mixing (Dr. Kato)
11.00am Lab tour, Mr. Nagahara (PIV)
Mr. Yamashita (Laser Beam Printer)
12.00pm Lunch with Iino, Ikegawa, Kaiho, Fukaya, Minato,
Mitsuya
1.00pm Lecture on
"Bubbly cavitating flows: modeling issues including
cloud cavitation effects and bubble fission"
2.00pm Discussion
2.30pm Leave for Tsuchiura Station w. Mitsuya
3.16pm Train to Omika Station, Hitachi w. Mitsuya
4.29pm Arrive Omika Station, Hitachi City (Dr. Minato)

		4.45pm	Check into Omika Club guesthouse, Hitachi City
		6.00pm	Dinner at Omika Club (Minato and Mitsuya)
Dec 10	Wed	9:30am	Minato will pick me up at Omika Club
		9.35am	Arrive at Power & Indust. R&D Lab Hitachi
		10.00am	Lecture on "Cavitation in biological and bioengineering contexts".
		11.00am	Research at PISL: Turbomachinery (Mr. Mizumi) Gas-liquid flows (Dr. Minato)
		12.00pm	Lunch at Hitachi (Mizumi, Minato, Mitsuya)
		1.00pm	Research at PISL: Bubble oscillations (Mr. Katouno)
		1.30pm	Discussions
		2.00pm	Leave for Omika station
		2.21pm	Train to Sendai. Stay Hotel Sunroute, Sendai (tel: 022-262-2323)
Dec 11	Thu		Lecture on "Strange world of shifting sand" Evening. Celebration at IFS (and Karaoke) Stay Hotel Sunroute, Sendai
Dec 12	Fri	9.30am	Get to Kamiyo's office
		10.00am	Ceremony and lecture at IFS: "Bubbly cavitating flows: modeling issues including cloud cavitation effects and bubble fission"
			Evening in Sendai. Stay Hotel Sunroute, Sendai
Dec 13	Sat		Travel to Zaomets. Stay Zaomets
Dec 14	Sun		Travel to Tokyo
		4.25pm	UAL890 NRT-LAX. Arrive LAX 8.45am

TRAVELS NOW AND THEN

© Christopher Earls Brennen

JAPAN 2003



In Matsumotos Office??

Sat. Mar.1

Fly UA897 from Los Angeles to Narita, Tokyo.

Sun. Mar.2

Mon. Mar.3

Tue. Mar.4

Wed. Mar.5

Fly UA890 from Narita, Tokyo, to Los Angeles.

Fri. Oct.31

Fly UA891 from Los Angeles to Narita, Tokyo.

Sat. Nov.1

Fly AN 8233 from Narita, Tokyo, to Itami, Osaka.

Sun. Nov.2

Mon. Nov.3

Tue. Nov.4

Fly AN 32 from Itami, Osaka, to Haneda, Tokyo.

Wed. Nov.5

Thu. Nov.6

Fly UA890 from Narita, Tokyo, to Los Angeles.

Sat. Dec.6

Fly UA891 from Los Angeles to Narita, Tokyo.

Sun. Dec. 7

3.55pm Arrive Narita on UA 891

Train to Ueno. Ginza line to Shibuya.

"Shibuya-Excel Tokyu Hotel" (Tel.no. 03-5457-0109)

Booked single use in Double room, normal rate 20,000yen, but
special discount 16,270yen (incl.Tax + service)

http://www.tokyuhotels.co.jp/en/TE/TE_SHIBU/index.shtml

Dec 8 Mon

Toyoko line from Shibuya to Hiyoshi (12 stops?)

12.00pm Kataoka will meet me at Hiyoshi Station

Meet with the Dean - sushi lunch

1.30pm Meet with Hishida

2:00pm Lab tour and Keio facilities

6.00pm Dinner at Hiyoshi Faculty Club

7.30pm Leave for Tsuchiura via Shin-Kawasaki JR station

(Hishida will take me by car – 10min)

7:50pm Shin-Kawasaki (Yokosuka line, train named "Air-Port Narita")

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8.12pm Shinbashi -> Ueno (by Yamanote-line) - 8:24

8.30pm Ueno (Jyouban-Line, train named "Fresh-Hitachi" Track no.17). "Fresh-Hitachi" is limited express,
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Dec 9 Tue

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Ultrasonic mixing (Dr. Kato)

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1.00pm Lecture on

"Bubbly cavitating flows: modeling issues including
cloud cavitation effects and bubble fission"

2.00pm Discussion

2.30pm Leave for Tsuchiura Station w. Mitsuya

3.16pm Train to Omika Station, Hitachi w. Mitsuya

4.29pm Arrive Omika Station, Hitachi City (Dr. Minato)

4.45pm Check into Omika Club guesthouse, Hitachi City

6.00pm Dinner at Omika Club (Minato and Mitsuya)

Dec 10 Wed

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9:35am Arrive at Power & Indust. R&D Lab Hitachi
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"Cavitation in biological and bioengineering contexts".
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Gas-liquid flows (Dr. Minato)
12.00pm Lunch at Hitachi (Mizumi, Minato, Mitsuya)
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1.30pm Discussions
2.00pm Leave for Omika station
2.21pm Train to Sendai.
Stay Hotel Sunroute, Sendai (tel: 022-262-2323)

Dec 11 Thu

Lecture on "Strange world of shifting sand"
Evening. Celebration at IFS (and Karaoke)
Stay Hotel Sunroute, Sendai

Dec 12 Fri

9.30am Get to Kamijo's office
10.00am Ceremony and lecture at IFS: "Bubbly cavitating flows: modeling issues including cloud cavitation effects and bubble fission"
Evening in Sendai.
Stay Hotel Sunroute, Sendai

Dec 13 Sat

Taken ill - trip to Zao cancelled.

Dec 14 Sun

Travel to Tokyo
Fly UAL890 at 4.25pm NRT-LAX. Arrive LAX 8.45am

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

Fluids Science Research Award

presented to
Christopher E. Brennen

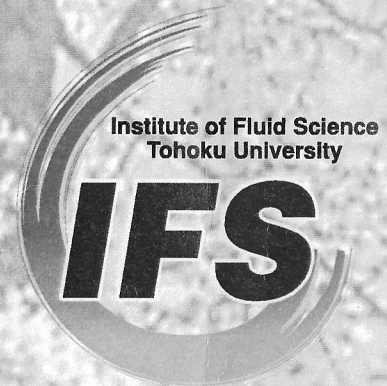
in recognition of his internationally outstanding contribution to
fluids science through his distinguished research accomplishments
in cavitation and bubble dynamics

December 11, 2003



Junji Tani

Director of Fluid Science Foundation



oil can hydro- its in a ge, then ramati- uate to rogen r says. iscov- nts get ioxide ns all ion as rogen robes n fast

tains were "borrowed" and used to write this message in Baxter Lecutre Hall on Tuesday Night.

Prof. Brennen Recipeint of Japanese Fluids Award

By MARYN NELSON

Christopher Brennen, professor of mechanical engineering at the California Institute of Technology, is the first non-Japanese recipient of the Fluids Science Research Award, given by the Japanese Fluid Science Foundation.

The foundation was created in 1947 by Professor Fukusaburo Numachi and is currently managed by the Institute of Fluid Science at Tohoku University in Sendai, Japan. Tohoku University was founded in 1907 as the third Imperial University of Japan, and is among the most prestigious science and technology institutions in the world.

Brennen, author of *Cavitation and Bubble Dynamics*, published in 1995 by Oxford University Press, is an international expert in cavitation and multiphase flows. His contributions to the field of rocketry have greatly benefited the development of the U.S. and Japanese space programs. Brennen has traveled to Tohoku University's campus in northern Honshu on several occasions throughout his career, and is a familiar contributing collaborator at the Institute for Fluid Science.

Brennen looks forward to traveling once again to the university on December 11 to receive his award.

Originally from Belfast, Northern Ireland, Brennen earned his master's and doctoral degrees from the University of Oxford, and has been a Caltech faculty member since 1969. The honors and awards that Brennen has garnered throughout his career include the 1992 Fluids Engineering Award of the American Society of Mechanical Engineers, and last year's Fluids Engineering Award of the Japan Society of Mechanical Engineers.

Additionally, Brennen served as a United Nations consultant to India in 1980 and chaired the 4th International Symposium on Cavitation in 2001.

In response to the award, Brennen emphasizes Tohoku University's continued role in improving international relations. It was the first school in Japan to admit international students. In awarding his accomplishments within the field of mechanics, says Brennen, "In part they are recognizing my contribution to international cooperation."

The California Tech

Caltech 40-58, Pasadena, CA 91125
editorial desk: (626) 395-6153
advertising desk: (626) 395-6154
editorial e-mail: tech@ugcs.caltech.edu

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Tammy Ma Managing Editor Vi Tuong Tran Business Manager

Kevin Carl Bartz Matthew Walker News Directors Circulation Natalia Deligne

Leo C Stein Commentary Editor Tearsheets Tim Tirrell

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TEACHING QUESTIONNAIRE

Instructor Name:

Brennen

Course No.:

ME 19A1st Term 2002/03You are a: ☐ Freshman ☐ Sophomore ☒ Junior ☐ Senior ☐ Graduate Student

You are being asked to provide your opinion regarding the effectiveness of your instructor in the attitudes or behaviors listed below. You may supplement this anonymous questionnaire with a formal signed letter to the Chairman of the Division of Engineering and Applied Science. Return this form in a sealed envelope to Sallie Manson, EAS Division Office, 104-44.

A= Excellent B= Above Average C= Average D= Below Average E= Far Below Average
 NA= Not Applicable or No Opportunity to Observe

This instructor:

- | | | | | | | |
|--|-----|---|---|---|---|----|
| 1. Has command of the subject. | (A) | B | C | D | E | NA |
| 2. Was well prepared for class and gave presentations which were organized and clear. | (A) | B | C | D | E | NA |
| 3. Was responsive to the class, e.g., welcomed questions and discussion as class size and other circumstances permitted. | (A) | B | C | D | E | NA |
| 4. Made course requirements and course grading criteria clear. | (A) | B | C | D | E | NA |
| 5. Are the number of units of this course reasonable? | (A) | B | C | D | E | NA |
| 6. Returned tests, papers and assignments in a reasonable time period. | (A) | B | C | D | E | NA |
| 7. Instructors' availability outside of class. | (A) | B | C | D | E | NA |
| 8. How useful was the homework. | (A) | B | C | D | E | NA |
| 9. The probability that I would recommend this instructor to another student is: | (A) | B | C | D | E | NA |

For laboratory courses:

- | | | | | | | |
|--|---|---|---|---|---|------|
| 10. Experiments were informative and challenging. | A | B | C | D | E | (NA) |
| 11. Lab materials were available and equipment was in good repair. | A | B | C | D | E | (NA) |

Comments:

What a great prof. He is enthusiastic kind,
 and just fun to be around.
 I am very glad he is teaching again.

Comments:

Brennan is so cool.

Comments:

I really enjoyed Prof. Brennan. He took great care to make sure we learned the material, instead of the usual ~~drone~~ continuous droning that some professors undertake.

Comments:

So, this instructor has a terrific voice + grasp of the material. He knows fluids. ~~His~~ His soothing voice relaxes the most spiny topics. Really good lecture.

Comments:

I haven't had such an excellent class for a long time!

(over)

TEACHING QUESTIONNAIREInstructor Name: Christopher Brennan Course No.: ME 19c 3rd Term 2002/03You are a: ☐ Freshman ☐ Sophomore ☒ Junior ☐ Senior ☐ Graduate Student

You are being asked to provide your opinion regarding the effectiveness of your instructor in the attitudes or behaviors listed below. You may supplement this anonymous questionnaire with a formal signed letter to the Chairman of the Division of Engineering and Applied Science. Return this form in a sealed envelope to Sallie Manson, EAS Division Office, 104-44.

A= Excellent B= Above Average C= Average D= Below Average E= Far Below Average
 NA= Not Applicable or No Opportunity to Observe

This instructor:

- | | | | | | | |
|--|----------|---|---|---|---|----|
| 1. Has command of the subject. | <u>A</u> | B | C | D | E | NA |
| 2. Was well prepared for class and gave presentations which were organized and clear. | <u>A</u> | B | C | D | E | NA |
| 3. Was responsive to the class, e.g., welcomed questions and discussion as class size and other circumstances permitted. | <u>A</u> | B | C | D | E | NA |
| 4. Made course requirements and course grading criteria clear. | <u>A</u> | B | C | D | E | NA |
| 5. Are the number of units of this course reasonable? | <u>A</u> | B | C | D | E | NA |
| 6. Returned tests, papers and assignments in a reasonable time period. | <u>A</u> | B | C | D | E | NA |
| 7. Instructors' availability outside of class. | <u>A</u> | B | C | D | E | NA |
| 8. How useful was the homework. | <u>A</u> | B | C | D | E | NA |
| 9. The probability that I would recommend this instructor to another student is: | <u>A</u> | B | C | D | E | NA |

For laboratory courses:

- | | | | | | | |
|--|---|---|---|---|---|----|
| 10. Experiments were informative and challenging. | A | B | C | D | E | NA |
| 11. Lab materials were available and equipment was in good repair. | A | B | C | D | E | NA |

Comments:

Excellent job - enjoyable & informative.

Comments:

One of the best-run and informative classes which I have yet taken. Professor Brennan not only has command of the subject but is also able to present it in an interesting, clear, and comprehensible manner.

Comments:

I like the class. Brennen was a good instructor, made fluids "fun" and interesting. Fluids was less intimidating w/ him teaching.

Comments:

Brennen is an excellent prof., and it was fun. I found that it was well unified and that homework and lectures complemented each other.

The field trips were informative, esp. the trip to Viosense.

Should acquire the Viosense lab module and use it in class / create some way to have demos of flows

Comments:

Prof. Brennen is a wonderful instructor.

(over)

TEACHING QUESTIONNAIREInstructor Name: BrennenCourse No.: ME 19 3rd Term 2002/03You are a: ☐ Freshman ☐ Sophomore ☒ Junior ☐ Senior ☐ Graduate Student

You are being asked to provide your opinion regarding the effectiveness of your instructor in the attitudes or behaviors listed below. You may supplement this anonymous questionnaire with a formal signed letter to the Chairman of the Division of Engineering and Applied Science. Return this form in a sealed envelope to Sallie Manson, EAS Division Office, 104-44.

A= Excellent B= Above Average C= Average D= Below Average E= Far Below Average
NA= Not Applicable or No Opportunity to Observe

This instructor:

- | | | | | | | |
|--|-----|---|---|---|---|----|
| 1. Has command of the subject. | (A) | B | C | D | E | NA |
| 2. Was well prepared for class and gave presentations which were organized and clear. | (A) | B | C | D | E | NA |
| 3. Was responsive to the class, e.g., welcomed questions and discussion as class size and other circumstances permitted. | (A) | B | C | D | E | NA |
| 4. Made course requirements and course grading criteria clear. | (A) | B | C | D | E | NA |
| 5. Are the number of units of this course reasonable? | (A) | B | C | D | E | NA |
| 6. Returned tests, papers and assignments in a reasonable time period. | (A) | B | C | D | E | NA |
| 7. Instructors' availability outside of class. | (A) | B | C | D | E | NA |
| 8. How useful was the homework. | (A) | B | C | D | E | NA |
| 9. The probability that I would recommend this instructor to another student is: | (A) | B | C | D | E | NA |

For laboratory courses:

- | | | | | | | |
|--|---|---|---|---|---|----|
| 10. Experiments were informative and challenging. | A | B | C | D | E | NA |
| 11. Lab materials were available and equipment was in good repair. | A | B | C | D | E | NA |

Comments:

Prof. Brennen is a very enthusiastic and congenial person.

Comments:

Prof. Brennen is awesome, I think I'll come back for 19c

Comments:

My favorite prof at the institute. Glad
he is teaching a third term - I will
be enrolling

Comments:

(over)

Dr. Brennen is probably the best professor
I have had my entire time here at Caltech. He is
extremely knowledgeable and shows concerns
for his students. Thank you. :)

Comments: Still the best course I've had at Tech.

(over)

National Aeronautics and Space Administration

Certificate of Training



This is to certify that

Christopher E. Brennen

has completed the

*Physiological Training Course with 25,000 foot
Chamber Flight and Rapid Decompression*

given by

**NASA Johnson Space Center
Houston, Texas**

Charles W. Shannon

Training Officer

Mike Lot

Physiological Training Officer

4 February 2003

Date





SOUTHERN CALIFORNIA HEART SPECIALISTS

"Comprehensive care for the heart...from the heart."

August 15, 2002

Diplomates in
Cardiovascular Diseases
and
Fellows of American
College of Cardiology

Ralph Riffenburgh, M.D.
10 Congress Street - Ste. 340
Pasadena, CA 91105

John L. Easthope Jr., M.D., Inc. Re: Christopher Brennen

W. Allan Edmiston, M.D., Inc.

Thomas P. Feeney, M.D.

Michael Q. Luu, M.D., Inc.

Paul D. Maher, M.D., Inc.

Mark R. Myers, M.D., Inc.

Stephen J. Soldo, M.D.

K-Heiner Vogelbach, M.D.

Douglas D. Yun, M.D., Inc.

Dear Dr. Riffenburgh:

I have been asked to provide a cardiovascular evaluation for Mr. Brennen prior to him flying in a KC-135. My understanding is that this particular plane has oscillations in altitude with periods of zero gravity. The patient is seeking to be a passenger on this plane in conjunction with his students at the California Institute of Technology.

Richard H. Onysko, P.A.-C.

Robert E. Develle, P.A.-C.

Judith Castner, R.N.

Helen Wesser, R.N.

Noel Ramirez, R.C.V.T.

Nancy Bourn, C.M.N.T.

The patient's cardiovascular history is remarkable for a small, subendocardial myocardial infarction in December, 2001. Coronary arteriography at that time showed obstructive disease in a small branch vessel and no coronary intervention was deemed appropriate. Since then, the patient has been on cardiac medication and has dramatically changed his lifestyle.

This patient is very fit and exercises daily. He does hiking in the San Gabriel Mountains up to 2,000 feet once a day. On 7/25/02, we performed his treadmill stress test, whereby he walked 14 minutes (period of duration for his age is 9 minutes and 30 seconds) without ST changes or chest discomfort. Note also that his coronary calcium score is only 51, which places him in the 25th to 50th percentile for his age and gender.

Given this gentleman's exceptional functional capacity and freedom from any cardiovascular symptoms, in addition to his meticulous compliance with his diet and medications, **he could fly on the KC-135 with a very low risk of any cardiovascular problems or decompensation.**

Please call me with any questions you may have.

Sincerely,

Stephen J. Soldo, M.D., F.A.C.C.

SJS:srs

QUALIFIED OPERATORS LIST	DATE RECEIVED (Completed by Committee Chair)	PERMIT NUMBER (To be provided by Committee)	
TITLE (From Safety Permit Request. Limited to 70 characters including blank spaces) Granular Materials FLOws with Interstitial Fluid Effects			
LOCATION OF ACTIVITY (Include facility name, number, cell) KC-135			
EXPERIENCE AND TRAINING REQUIREMENTS (Provide a description of the experience and training required to be a Qualified Operator(s). Training can be work and/or on-the-job training. Written procedures and/or manuals should be referenced. Line management will implement training programs to certify Qualified Operators and will review this form at the time of Safety Permit renewal) All operators need to have taken the KC-135 Physiological training. All operators should be familiar with the hardware and the operating procedures.			
QUALIFIED OPERATORS			
NAME	ORG.	NAME	ORG.
Juan H. Agui	6712/GRC		
James Cory	Caltech		
Stephen Hostler	Caltech		
Christopher E. Brennen	Caltech		
Masami Nakagawa	CSM/GRC		
SUPERVISOR(S) OF QUALIFIED OPERATOR(S) (Print name, work phone, sign and date) Bhim S. Singh (216) 433-6617 / Christopher E. Brennen (626) 395-4231 CHRISTOPHER BRENNEN 626-395-4117 <i>Christopher Brennen</i> June 21, 2004			
SAFETY PERMIT REQUESTER (sign and date)	SUPERVISOR OF REQUESTER (Print name, sign and date)		WORK PHONE
	Bhim S. Singh		(216) 433-6617
NASA TECHNICAL SUPERVISOR (Required if Safety Permit Requester is a contractor. Print name, sign and date)	WORK PHONE	INSTRUCTIONS: Send this form with the Safety Permit Request to the Glenn Safety Office. After GSO review, send form and permit request information to the Area Safety Committee Chair. Place a copy with the posted Safety Permit.	

show the same passion for my subject and
concern for my students that I've
seen from you.


Thank you very much.

Joe Cannell

Dear Dr. Brennen,

I just wanted to say thank you
one more time ~~as~~ for going out of your
way to help me graduate. I've always
appreciated your empathy and compassion,
whether as a teacher or administrator,
and this case was certainly no different.

All the best to you in your future
endeavors; I now head off to
pursue teaching myself, albeit with
younger students, and see if I can't



We proudly announce the arrival
of
Dayton's baby brother

Brennen Clay

June 29th, 2003

11:07 a.m.

6 pounds, 11 ounces

20 inches

Troy and Susan Sette

Chris and Doreen —

what can we say... we are so touched by your extremely thoughtful gift for little Brennen. How does one thank such generosity? Leaves us somewhat speechless. It will certainly help open a nice savings account for school down the road (Cal Tech??? Parents can dream!).

Things here are going really well — Brennen is definitely thriving, Dayton just loves his baby brother and we're enjoying being new parents again, sleep deprivation and all.

Looking forward to getting together soon. Hope your trip to Ireland was wonderful. Thank you so much, again. — The Settes

Caltech students lend weight to experiments

Tues: Oct 21. 03.

By Becky Oskin

STAFF WRITER

PASADENA — Eight Caltech students earned the ride of their lives this summer: a trip on NASA's infamous "Vomit Comet."

The two teams of four designed research projects for testing in zero-gravity conditions on the Boeing KC-135a plane, which flies parabolic arcs that produce weightlessness at the top of the arc. The feeling of floating in space sometimes induces a little queasiness in fliers, hence the plane's nickname.

"It was my third time, so I was pretty comfortable with the fact that I was not going to throw up," said Caltech senior Joe Jewell, 22, a double major in aeronautics and medieval history.

The Johnson Space Center program follows the same process professors go through to get research funding.

"It mimics everything that scientists, especially scientists

at NASA, want to learn," said Caltech senior Cristina Thomas, 20. Thomas is a planetary science major and may end up at NASA one day.

Students propose, design, fabricate, fly and analyze their experiments and teams must raise their own funding for the trip to Houston.

"This is really a student-sponsored thing," Jewell said. "Caltech was great about providing funding, but we had to look for it."

The first Caltech team, which included Jewell, flew in 2001 and manufactured a new type of fiber-optic glass.

This year's teams examined how fruit flies respond to reduced gravity and measured the speed of sound through bubble-filled water.

The fly watchers filmed mutant fruit flies — of the type normally studied in genetics experiments — as the tiny bugs reacted to weightlessness.

The bubbly water group focused on a phenomena impossible to measure on Earth — how a mixture of air bubbles



CALTECH STUDENTS Brian Largenticha, left, and Cristina Thomas experience the effects of the so-called "Vomit Comet" during research experiments on weightlessness.

and water slow down sound waves. The team designed a leak-proof container with internal motors that mixed water and air on the flight up. When the plane hit zero gravity, the motors were shut off and the tests began.

The students fly in teams of two, meaning each experiment runs twice. The plane makes about 30 arcs, so the first few rides are allotted for acclimating to weightlessness and a little fun, like spinning upside down.

For the sound wave team,

this summer's trip was old hat — they ran the experiment once before, in 2002.

"We tried to do this the previous summer, but I think we probably took on a little more than we could handle," Thomas said.

"This year we really refined it and we came out with some really good results," she said.

Becky Oskin can be reached at (626) 578-6300, Ext. 4451, or by e-mail at becky.oskin@sgvn.com.

Mountain View
Dec 29, 2002

Dr Brennan,

I graduated from Caltech in 1998, and briefly served as IHC chair shortly after you had been elected VP of student affairs at the University. I'm not sure if you remember me well or not, but I write today because of the shameful thing I did to you while preparing for my Ditch Day stack.

My last year at college was very difficult, both because my housemates started the year off by injuring a freshman and because of my personal problems at the time. If there is any memory of me at the school, I imagine it is a negative one. For the most part, I have been able to get past most of the stupid things I did at college, but lately the unexplained note I left you as part of my Ditch Day props has been weighing heavily upon me. I am not sure you remember it, but it probably read as an indictment of your character had the proper context not been established. Even if it had, the role it was asking you to play was completely inappropriate and my methods insubordinate. For the last month or so, the realization of how hurtful that may have been has been blossoming within me, even making me lose sleep. It is to my great shame that, in trying to bring you in on a joke, I accidentally slandered the man for whom I had the most respect in the faculty. Please believe that if I could change one thing I did while at college, it would have been that. If this letter

has brought you unpleasant memories, I can only
plead that my conscience leaves me no other choice,
and that hopefully it may have dispelled any lingering
sorrow or confusion on your part.

Please let me know if there is a deed I can do to make
up for my carelessness. I had plenty of mates in college,
but I want you to know none of it was directed
at you.

Humbly,

Geoff Smith

Mechanical Engineering Dept.
Caltech, CA 91125
brennen@its.caltech.edu

Jan.4, 2003

Dear Geoff:

Thank you for your letter. I was touched by the concern that motivated you to write and thank you most sincerely for that thoughtfulness.

Let me hasten to assure you that I remember you well - and, though I speak only for myself, those recollections are positive. During my years in various roles in Student Affairs, I had many strange things happen to me, particularly on Ditch Day. Every year I was called on to play a variety of roles, most of which I only dimly understood. If I am honest, I have only the very haziest recollection of your stack - and whatever transpired it certainly did not alter my general memory of you as a person for I tend to form those impressions from more extensive and more direct interactions. So I urge you not to concern yourself with any adverse effects the incident may have had on me, for they were clearly minimal, lost in the "noise" of Ditch Day.

It has always been my view that student self-government is one of the greatest attributes of a Caltech education and I have the greatest admiration for those, like you, who were willing to step forward and bear the weight of leadership. I remember the vigor and sincerity with which you bore that mantle and I admire you now (as I did then) for those efforts. If, at times, you exhibited excessive zeal it is appropriate for me to observe that sometimes such excess is necessary, sometimes it is effective. Sometimes, on the other hand, it is detrimental, a mistake. But we all make mistakes. And when we do the most important thing is not to dwell on them but to learn by being honest with our own self-analysis of those mistakes. In this instance, I commend you for that analysis even if I do not remember the mistake. I often think that one of the characteristics of a successful Caltech education is the ruthless honesty that student self-government and the Honor System instill. I take a special pride when I see it reflected in the integrity of alumni. I hope, in the future and if you feel so motivated, that you will help in whatever way you can to preserve what is special about the Caltech student experience. Every day it seems as though the freedom which makes that experience special is threatened by increasing legislation and liability exposure.

And so I will continue to remember you with fondness - and now with an added respect for your continuing evolution as a person. I look forward eagerly to hearing of Geoff Smith in the future.

With very best wishes,

Chris Brennen