

Harold Edgerton

Sad news, H.E. Edgerton, known to friends and colleagues as 'Doc', died from a heart attack on 4th January 1990; he was 86. He lived in Cambridge, Massachusetts, and was professor emeritus of electrical measurements at the Massachusetts Institute of Technology, where he had taught for forty years. In his student days he had been at the MIT, where he earned an M.S. in electrical engineering, and a doctorate in 1931. As a boy his interest in photography had been fostered by an uncle. He had his first camera at the age of 15. The problem of underexposed indoor pictures led him to think about the possibilities of flash photography. His major interest was with electricity, but he continued to probe the flash problems. While a graduate student he built his first flash tube, using vaporized mercury. He soon improved this by turning to a xenon gas filled tube, which is still the standard electronic flash tube component. He went on to perfect his invention with two former students, K. Germeshausen and H. Grier, and to explore its uses both in and out of the laboratory. Something of a novelty at first, electronic flash is now universally accepted by all photographers and built into most modern cameras. Also the strobe light has become an important tool in science and industry. His electronic flash was of extremely short duration, as little as a millionth of a second, also it was repeatable. So it could be used to record nearly instantaneous events as well as sequential moments. It was put to its first practical use in the study of electric motors and other revolving machinery. Doc knew it had much broader applications, and in 1934 set up a series of carefully controlled laboratory photographic experiments. These revealed such things as a football is nearly compressed in half at the moment the kicker makes contact. He also recorded the moment of ball contact in baseball, tennis, and golf. The quality of these, and other demonstration pictures, along with his enthusiasm, made sure that the electronic flash would become an integral part of sport photography as early as 1939/40. During the Second World War he was a technical representative for the Army Air Forces and developed a flash technique for aerial-night reconnaissance. This equipment was used to obtain information from the Normandy coast immediately before D-Day and was also used in Italy and the Far East. After the war he formed a company, E. G. & G., to expand the commercial potential of his invention. With his partners, he developed a camera to photograph early nuclear-bomb tests. He also began a long involvement with underwater research, designing underwater flash units, specialised sonar devices and other equipment. Beginning in 1953 he worked closely with Jacques-Yves Cousteau, the well-known oceanographer. This collaboration continued for many years. He continued his experimental photography, freezing the action of birds, bats and bullets. By using multiple flash techniques he was also able to record the complete motion of golf swings and twirling batons. Some of these photographs, such as the 1964 colour photograph of a bullet piercing a playing card, have such startling beautiful effects, often surreal, that they have been featured in exhibitions in a number of museums, as well as being popular with scientific journals and other magazines. Bob Riney, and the Academy of Applied Sciences, called on Doc for his help and expertise early in their investigations at Loch Ness. In 1971 they were equipped with an underwater camera and strobe light which had been developed by Doc. In subsequent seasons they had variations and improved versions of this original equipment, as well as sonar gear that Doc had helped develop. In 1972 they obtained the 'flipper' pictures, which have been the source of some controversy concerning the computer enhancement of the originals. In 1975 it was Doc's gear that took the 'gargoyle' and 'head, neck and body' photographs. It has been shown since then that these pictures are probably of an old tree stump, but that was not the fault of the camera and lights but more of the way they had been deployed. Over the years Doc had made a valuable contribution to the research at Loch Ness. Such characters as Harold E. Edgerton are sorely missed in this world. He leaves a wife, son and daughter, to whom we offer our sincere sympathy.

Henry Bauer

Henry, Professor of Chemistry and Science Studies and author of 'The Enigma of Loch Ness', is also a member of the Society for Scientific Exploration. The Society was formed in 1982 for the study of Anomalous Phenomena, with 100 founding members drawn mainly from university faculties in the United States. These cover a very wide range of disciplines. The purpose was to provide a forum for the responsible discussion of anomalous phenomena, the term 'anomalous' being used to characterise a phenomenon which appears to contradict existing scientific knowledge or which for similar reasons, is generally regarded by the scientific community as being outside their established fields of inquiry. The Society holds annual meetings, and occasional

meetings are organised on a regional basis. They also publish a journal 'The Journal of Scientific Exploration' and a newsletter 'The Explorer'. Henry wrote to say that the Society, through the generosity of one of their members, has recently instituted the Tim Dinsdale Memorial Award. According to the agreement between the donor and SSE "The Tim Dinsdale Memorial Award will be given for significant contributions to the expansion of human understanding through the study of unexplained phenomena. The Award recognizes contributions no matter how made, through direct investigation, the accumulation of evidence, philosophical discussion, organisational efforts, or some combination of such activities." Each recipient of the award will be invited to present 'The Dinsdale Lecture' at an SSE Annual meeting. Henry also wrote that he obtained a copy of the video of the Sherlock Holmes film 'The Secret of the Loch'. He had read somewhere or other the suggestion that some genuine footage of Nessie had been used in the film. However he was disappointed: a bad film in all technical ways, and nothing resembling genuine footage of Nessie. He had visited the loch for three weeks late May early June 1989, in the chalet, presumably overlooking Urquhart Bay; reasonably good weather and a couple of intriguing water disturbances. He raised two other points. It occurred to him that Nessletter subscribers might be able to meet and communicate as they wish, if I made available to everyone the whole list of subscribers and their addresses. Some societies to which Henry belongs do that, he says. I must admit I am not keen on the idea generally. What I have done over the years is to offer to mention in the Nessletters anyone wishing to be contacted and give their details. That offer still stands. Anyone have any comments? Henry also returned to the matter of aerial surveillance by a balloon as suggested by Thomas Brophy, NIS 92. He said "Balloon over the loch - I expect there would be difficulties because of rapid weather changes and lack of propulsion. But how about balloon launched from and remaining tethered to a boat? Would give the desired visibility and also allow rapid retreat, resupply, etc." As I said, that is one of my own pet theories, and it would be a favoured means of loch watching. It was one of the schemes I put forward to the old LNI and David James. When the autogyro was used in 1970 it established that given the right conditions the visibility below the surface was as much as 15 feet. This verified my idea. I had suggested that a tethered balloon could make a useful vantage point. I envisaged a barrage balloon with basket, shore based but with the winch so placed, that the prevailing air drift would take it out over the water. Perhaps Temple Pier or Urquhart Castle would, depending on wind direction, allow the balloon to be over the bay. I had hoped that with David James's contacts, perhaps the army or air force could be persuaded to make an exercise of the operation. Unfortunately nothing developed along those lines. The use of the autogyro was an extension of the theory, but cost and other commitments meant that Wing Commander Wallis was only at the loch for a relatively short period. Today the balloon idea is still feasible, I believe, but there would be problems, not least the very low flying fighter aircraft that scream around the area. They may not take kindly to a balloon floating around in 'their' airspace. Henry's thought of using a boat could be used to good effect. A barge or some similar craft, would make an ideal platform for a balloon's winch and enable it to be used to cover any part of the loch. The greatest problems I think, would be the organising of such an expedition, the manning and financing. In such things the old Loch Ness Investigation is a great miss. When they were mounting their annual field expeditions, it did provide a focal point for others. The teams of volunteers although predominately interested in surface watching and photography, were there ready to provide manpower in other areas. The yellow submarine, the autogyro, the earlier Academy expeditions and their baiting/lure attempts, being some of them. That focal point no longer exists. While the Loch Ness Project have been working on their various programmes and doing valuable research for many seasons, I do not think they have replaced the old LNI spirit. So the balloon over the loch may have to remain just an idea.

NIS At The Lockside

Colin Moore wrote in September with news of his first trip to the loch. He and his wife Catherine, who he says is a devout sceptic, spent three days at Drumnadrochit between 8th and 11th June 1989. They spent one night at the Ben Leva Hotel and two nights at the Loch Ness Lodge. Their first impressions were to marvel at the sheer size of the stretch of water, and to be very careful of the wave formations. Although they saw nothing unusual, they could appreciate how anyone 'wishing to see something' could be confused by the dark shadows on the water. They were 'disappointed' by the lack of good vantage points on the north shore due to the large tree growth, apart from the Urquhart Castle area which they thought was excellent. That is an aspect I have mentioned in previous Nessletters. Colin suggested that for those intending to visit the loch, perhaps a future Nessletter could include a short piece on the best vantage points on the southern shore, as most of the texts/brochures tend to work along the

B852, where the loch is obscured for large stretches. They found the two Exhibition Centres very interesting, although Colin points out that each gives prominence to different areas of photography. He believes we will not get any closer to a solution until a common consensus is reached on what is genuine and what is faked. On that theme he says: "no book I have read appears to have made any attempt to unravel the mind of Frank Searle, who we are to believe, spent the best part of a decade at the lochside arranging spurious photographs, Why?" He managed to obtain a copy of Bauer's 'Enigma' while there, which he found had a rather different approach to the Dinsdale, Witchell and Binns books which he has read previously. He suggests that perhaps future literature needs to be published in this manner if we are to retain credibility with the establishment. Although he is sure most believers do not worry too much what the establishment feels anyway. He finished by questioning the way forward. He says: "It is clear to me that surface photography will never be accepted as definite proof. Whilst Deepscan for all its success in reassuring us that large moving underwater targets were in the loch, failed to combine sonar with simultaneous underwater photography of the objects picked up. With the increase in sophistication of video equipment since the 'high points' of the Academy of Applied Science in 1972/75, perhaps Adrian Shine can be persuaded that his next study of the loch should be made under rather than on the surface of the loch." About Frank Searle, who can tell what is in another's mind? I have my own thoughts about him, but it is speculation. When he first arrived at the loch he kept very much to himself; he did not seek publicity. His aim, he said, was to see one of the creatures. In the early days, I believe, he did not even have a camera. He lived in a tent in the woods by Balachladaich. As time passed he made it more comfortable with piled up brushwood, polythene sheets, carpet and a few pieces of furniture. He did not have a vehicle. Mr and Mrs Ayton, the crofters, helped by giving him lifts to Inverness and back for his groceries. Living in this very economical manner he was able to manage on his army pension, along with a small private income, which was the result of money invested after his parents' deaths. That was the situation as I understand it. Frank was doing what I think many of us would like to do, living by the loch spending all his time watching and walking the shores. Then as I see it, money raised its head. I would not say greed, just extra income to help out. Frank became aware that some newspapers would pay a nominal amount for 'Nessie' pictures. So he started to get pictures, one or two a year; the income must have been a good help. Then things started to get out of hand. Who knows, he may have begun to believe them himself. When he began to produce photographic fakes, instead of photographing fake Nessies, it became even more obvious that his output was spurious. It was a great shame that someone who set out with such high hopes and good intentions should resort to falsification in that manner. Frank became very possessive about the loch, with harsh criticism about anyone who did any research or other work on the mystery. I could go on at greater length, but that as I see it, was the position. Perhaps too much time involved in intense solitary activity is not to be recommended.

Peter Davenport let me have an account of the trip he and his wife, Lesley, made to the loch from Friday, 23rd, to Tuesday, 28th June 1989. They had planned a longer trip earlier, but on the way north their car, along with all their belongings in it, was stolen when parked in Edinburgh. They travelled to Inverness by train on the 22nd, hired a car and after B & B in town, arrived by the loch on Friday morning, checking into the Drumnadrochit Hotel. Peter says they visited the Exhibition Centre, entrance fee £1.65, but were very disappointed. For seven years' Holidays they have been supporting the exhibition hoping to see something new, but have always come out feeling it a waste of time and money. This time they thought there was even less than last time they visited. Apart from a steady stream of tourists and coach parties there seemed very little going on, the place looking shabby and run down. They saw Adrian Shine wandering about but have never had the nerve to introduce themselves. I would put in a word in defence of the exhibition. The new exhibition opened in July; Peter and Lesley unfortunately visited the very tail end of the old one. I did comment on the new exhibition in the last Nessletter, saying that many of us who have made a study of the mystery will know of everything that is displayed. I would suggest that anyone planning a visit should try to make it in the evening when things are quieter. Then the organisers, such as Tony Harmsworth, Adrian Shine, etc., may be able to spend some time with you, if you make your interest known. Always bear in mind that they do have their ordinary lives to lead, and the summer season is very busy for them. Peter queried why the exhibition does not have Doc Shiels' photographs on view, to allow the public to judge for themselves whether it is fake or real. In his opinion, even allowing for the eccentricities of the photographer, it is by far the best picture even taken of the Loch Ness Monster. He thinks that if

the respected researcher Tim Dinsdale was convinced, the pictures cannot be lightly dismissed. Consequently he feels it should be on view at what after all is the only exhibition at the loch. (Mr Skinner would possibly argue the last point.) They spent the afternoon watching the loch from one of the lay-bys opposite Dores. Returning to Drumnadrochit they had a meal at the newly opened Nessie's Chef, finding the food excellent and premises spotless. From 5 pm to 11 pm they sat by the loch, again up opposite Dores; they had 10 x 50 binoculars but saw nothing special. On Saturday they moved along to the Glenmoriston Arms Hotel, staying there until leaving for home. They have now stayed at most of the hotels on the lochside, apart from the Foyers and Caledonian, and think the Glenmoriston is the best of the lot. Peter passed on the following thoughts: Clansman is quite good but rooms small; Drumnadrochit Hotel can be very roisy, otherwise O.K.; Loch Ness Lodge very poor service but good rooms; Inchnacardoch Lodge could be the best but the service was poor and rooms very basic. The Lovat Arms seemed very expensive in 1989. On Saturday they watched from the little lay-by opposite the Horseshoe Scree, Peter's favourite place on the loch, staying from 2 pm to 6 pm. They then moved round to the end of the canal pier at Fort Augustus, parking the car there they stopped until 11.30 pm, when it was still quite light. The loch had been fairly calm with maximum 1 foot waves, but with plenty of rain and midges. After an early start back at the Horseshoe on Sunday, they left at 8.30 am, conditions being miserably wet and windy giving waves of 3 to 5 feet with plenty of white water. Driving to Fort William they took the steam train to Mallaig, the weather was so poor the boat trip to Skye was cancelled. Peter says that despite the bad weather it was still a great day out, to be recommended. On returning to Ness they watched for another hour or so. On Monday they watched from the Fort Augustus Pier during the morning, cloudy with showers but loch fairly calm. They took a trip on the Caledonian Queen, which they found very enjoyable, returning to watch a very calm loch from the pier until 6 pm. By Tuesday morning they had been told the Caledonian Queen was equipped with sonar, and took another trip. This time going below where sitting before the sonar they were given a rundown on its operation. Peter says it seemed fairly easy to use, and watching the depth of the loch change so rapidly below was very interesting, and by far the highlight of the trip. The boatman told them he was involved with Operation Deepscan, being the right hand lead man. He was to steer as steady a course as possible with everybody else endeavouring to maintain station with him. An experienced water-man with some 13,000 hours on the loch, although in larger craft than Deepscan were using, he said he had difficulty holding such a course. Asked about the result he told them that good sonar contacts were obtained, the first about 100 yards off Fort Augustus, the second between Invermoriston and Foyers, third and fourth, two separate contacts around Urquhart Bay, and finally two contacts up near Dores. All were estimated to be between 39 and 47 feet long, Peter says he thought that rather large, and in mid-water about 2/300 feet below the surface. Peter was told apparently the contacts at Dores were especially exciting because it showed two moving separate objects on the screen at the same time. Also the reason these results were not released was because it was wanted to make sure the objects were animate. Peter was given the impression that that had now been confirmed. He passed on the information, as I have, as he was told it. On the Tuesday afternoon they returned the car to Inverness and caught the train home. They will be back this year as keen as ever, and hoping to see some change in the exhibition.

Another Nessletter finished again, belated again. I'm sorry. Thank you for your patience. Please remember your news and views are always welcome. My address is still:- R. R. Hepple, 7 Huntshieldsford, St Johns Chapel, Bishop Auckland, Co Durham, DL13 1RQ. Tel: (0388) 537359. Subscriptions: U.K. £2.75, North America \$9.00