

Chairman's Annual Report for 2017

For the second year running Ecton Mine Educational Trust (EMET) has been heavily involved in scientific projects which would have gladdened the hearts both of its founding father and his wife: Geoff and Elizabeth Cox. Also; land, adjacent to the River Manifold and important for the mine, has been acquired by EMET; and visitors of all ages have continued to come to the mine in significant numbers - thanks to the hard work of Ecton Hill Field Studies Association (EHFSA), the National Trust (NT) and of the EMET trustees and officers themselves. Additionally, because of the diligence and care of the treasurer and the work of the EMET and EHFSA membership, the Trust's finances are on a sounder footing than they have been before. That is not to say that we still do not have to continue to work hard in order to attract the funds required to continue to keep the mine intriguing and safe for visitors to visit, and one in which the scientists can work satisfactorily.

The Geoff Cox education centre also continues to benefit from the efforts both of the Ecton community of volunteers and the skill of the craftsmen employed to keep the Centre dry and effective as a base for all that goes on at the mine and the Centre.

UNEXMIN

UNEXMIN, the 4 year Euro venture developing autonomous exploratory submersibles designed to explore and map flooded mines to great depths and in considerable detail, has continued to feature largely in the business of the Trust. By the end of 2017 the midpoint of the project was passed and the final testing of the three prototypes, which takes place at Ecton in May 2019, is approaching. Significant preparation therefore was being undertaken. During 2017 the trustees and officers continued to gift many hours of planning, making safe, attending project meetings and

administering the trust's general involvement in UNEXMIN and the hosting of the final trials.

By undertaking all this work the trust was able then to take advantage of an unexpected opportunity which arose towards the start of the year. This was to purchase the land surrounding the chosen entry point for the trials. The Trust was helped enormously in the process by the legal work which was done at a very modest fee by Mr Oliver Wilson and his law firm. Engineering and reconstruction work, which needs to be done to improve the safety of the entrance way, will now be carried out much more efficiently than would otherwise have been the case.

During 2017 the UNEXMIN project successfully completed:

- the production of the instruments, and testing - both in the laboratory and in lakes;
- the design and manufacture of pressure hull components;
- the development of software and hardware tools for the robots' functioning;
- the development of post-processing software tools;
- and an inventory of Europe's flooded mines.

During 2018 the first UX-1 prototype will have been built

- (by the end of April)
- laboratory tested (during April-May)
- and the first pilot trial conducted at the Kaatiala Mine, Finland (June 2018)

The budget for the whole project is 4.862m Euros. The project's main aims are twofold:

- to map and survey the plethora of submerged mines in Europe - with a view to making the region more self-sufficient in minerals
- to support the region's mining heritage

For more detail on this hugely exiting project please go to the following website

<http://www.unexmin.eu/the-project/impacts/>

TERRAVISION

Over the summer, a ground penetrating radar (GPR) survey was carried out over the top of Ecton Hill by TerraVision with the principal purpose of locating any previously undetected ancient shallow underground mine workings. A number of traverses crossed the area in which these were suspected and in which some known workings had already been identified. Apart from detecting very clearly these known workings, a number of new targets were identified. Although most of these are too

deep for archaeological excavation, the Trust now has an opportunity to try to match them against existing surveys. The GPR work also provided unexpected evidence of geological structures on the hill which potentially can be linked with geology observed in the accessible underground workings. The survey was carried out by Natalie Staffurth and Daniel Sherwin of Terravision, and Dan's later de-briefing session with us was very much appreciated

BOOMERANG

On 1st August a team from Boomerang visited Deep Ecton to carry out filming underground for a documentary series they are making, intended for broadcast on Channel 5 later this year. This coincided with another visit by Mark Hudson of Geoterra, as well as Stuart Cadge of GeoSLAM, for further laser scanning for 3D computer modelling of accessible parts of Ecton Mine in connection with the UNEXMIN project.

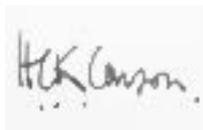
VISTORS

During the course of the year there were a total of 771 visitors to the Mine.

TRUSTEES

Mr Andrew Mann, a consultant geoscientist, and Mr Mark Osbaldeston, Manager of the Centre for Mineral Products at Derby University, both became trustees at the May meeting of the board. Mr Gary Booth resigned as secretary, because of pressure of work from his other commitments, and Mr Peter Kennett (trustee) once again took over the secretarial reins.

Trustees look forward to the forthcoming year with confidence and enthusiasm.

A handwritten signature in black ink that reads "Hugh Carson". The signature is written in a cursive style and is positioned above the typed name and date.

Hugh Carson
4th March 2018