

Establishment of a Trapped Charge Dating Association

This meeting is to discuss formation of an association/society and election of New World representatives at the 12th New World Luminescence Dating Workshop, June 27, 2018.

Attending: Jose Luis Antinao, Nathan Brown, Regina DeWitt, Harrison Gray, Sébastien Huot, Shannon Mahan, Michelle Nelson, Joel Pogue, Marissa Schorr, Joel Spencer, Zhengye Xiong

Chairperson: Regina DeWitt; Minutes: Regina DeWitt & Harrison Gray

Synopsis: We had a half-day meeting at the beginning of the NWLDW and had a lively and productive discussion and a summary of our meeting is presented here

- Ginni welcomed everyone and introduced the discussion for establishment of a trapped charge dating association and presented 10 discussion topics, which were taken from the e-mail sent by Regina DeWitt, Geoff Duller and Jan-Pieter Buylaert in October 2017 (see <http://ancienttl.org/TCDA.htm>)
- Discussion at Capetown LED2017 regarding founding of an association was summarized and it was reported that attendees supported its establishment
- NW meeting attendees then discussed whether we want an association and why it's needed. It was unanimously voted on and welcomed. Professional recognition, a more favorable view by funding bodies, generation of funds to support students, and potential improved recognition/inclusion with international luminescence community, were some of the points made.
- Topic 1: What is the mission of the association? Recognition with international research programs; production of white papers to influence funding agencies; better connection of international luminescence groups; only trapped charge (or loosely trapped charge) phenomena should be included.
- Topic 2: What is the scope of the society? Support of new labs (not financial but in terms of a central place where individuals can request help); guides of what and where to buy equipment, reagents, etc; donation of unwanted but functioning equipment.
- Topic 3: Duties of the society? Interlaboratory comparison is a necessity and perhaps most important role of an association; requirement of more calibration standards; suggestion that a useful mechanism to develop calibration standards and intercalibration programs would be a project similar to CRONUS; NW attendees were uncertain as to whether association should have a role in organizing LED meetings; whether association should offer training was discussed, and it was agreed that the association should have an educational role in terms of encouraging/supporting the running of workshops/short courses before/after meetings; production of white papers.
- Topic 4: What should the structure be? Discussion ranged from a board with president and representatives from different luminescence regions, to a structureless body - no titles etc. A point was made that non-profit laws require a president, secretary, and treasurer (etc).
- Topic 5: How should administration of the association be undertaken? All members should vote for a new board every 3 years in time with LED.

- Topic 6: What financial arrangements should be put in place? Not much discussion here, but everyone agreed that membership dues are necessary to cover required costs such as the webpage. Additional dues could be used for example for travel grants for students or to support a newsletter.
- Topic 7: What means of dissemination should association use? Website; Split Ancient TL into standalone Newsletter (conference announcements, thesis abstracts, bibliography, White Papers, etc) and academic journal with citation index that is tied to a publisher.
- Topic 8: Name: NW felt this is a future discussion when establishment process is at a more advanced stage.
- Topic 9: Other functions? Assoc. should offer student grants / prizes.
- Topic 10: Other issues? NW attendees do not favor corporate membership but sponsorship by corporate entities welcomed. Memberships should be for individuals only, professional and student membership levels should be implemented.

Finally, we elected 3 NW representatives by secret ballot:

Sébastien Huot (ISGS, Champaign, IL, USA)

André Sawakuchi (Universidade de São Paulo, São Paulo, Brasil) (André was not present at discussion meeting but had expressed interest in being a representative and was voted on)

Joel Spencer (KSU, Manhattan, KS, USA)

Addendum – TCDA Meeting at NWLDW12 in Greenville, NC June 29 2018

#2 - Scope:

1. Should TCDA let other scientists not associated with luminescence or ESR lab into the society? Some thought it would not be a good idea to allow non-lab affiliated scientists into the society. This was only discussed and not voted on.

#3 - Duties:

1. Elaborate more on the role of the TCDA in organizing LED conferences.

Other ideas brought up:

1. Structureless organization is preferred by some as this is international and won't follow one country's set of laws.
2. TCDA could offer a summer school geared more for students/ next generation of luminescence specialists. This would be for outreach purposes to get more people in from outside of the community.
 - a. 1 week in field, 1 in lab
3. Regional cells of TCDA could be established to meet immediate needs, and for local/national funding resource requirements.
 - a. Unclear if regional sections should be under umbrella of international TCDA or if they should be separate entities.
 - b. Further discussion needed.
4. Assignment of volunteers to build the regional group framework.
 - a. During the workshop we had several group discussions about ideas important to the nascent community. These ideas are: establishment of a large database able to handle luminescence data, calibration and standardization, actual incorporation and documentation of the New World Trapped Charge Association, and writing up a white paper based on all the comments for both possible NSF opportunities associated with the "ILLUMINATES" and further future efforts. It was agreed that those who volunteered would have their research ready NLT next year's NWLDW.
 - i. **Harrison Gray** volunteered to head up the white paper idea and to present a written document by summer's end so that everyone could provide input. **NOTE: This task is completed in its early stages. Harrison and Shannon have input into the paper and it now rests with Regina DeWitt to amend or review.**
 - ii. **Michelle Nelson** agreed to head up the database search and to start putting together an actual working template as well as our three or four (or whatever it was) best front runners for hosting the database. **NOTE: Michelle has started a proto version with the Utah Geological Survey. She will go meet in person with the group early fall or early winter.**
The metadata resides in an ArcGIS SDE geodatabase (server-based, multi-user), the scanned lab reports reside in a GeoData Archive running open-source ResourceSpace digital asset management software, and the

web mapping app uses the ESRI Calcite template. The existing geodatabase is available at <https://gis.utah.gov/data/geoscience/geochronology/>, we can also provide a current copy as a file geodatabase. Each dating method is a separate feature class. It would not be hard to extend the Utah Geochronology Database to include areas outside Utah, just need to deal with funding that part.

- iii. **Sebastien Huot** agreed to head up the calibration and standardization effort. This includes researching and presenting calibration sample sites in North and South America, areas of calibration, calibration standards in use that might be helpful to the community, past calibration efforts (summary), and inter-lab comparison standardization ideas (if different than calibration).
- iv. **Shannon Mahan** agreed to head up putting together bylaws, presenting best possibilities on how to and where to incorporate the New World Trapped Charge association., and structure of the society (elections, officials, dues, etc.).

****Following the presentation by Joel Spencer to those in attendance at NWLDW 2018 (12th meeting) in Greenville, other ideas discussed via email after conference conclusion:**

1. TCDA could have a place to share ideas on equipment maintenance and trouble-shooting.
 - a. Could be disseminated at pre-meeting workshops, Ancient TL newsletter or website.
2. Addition of Regina DeWitt to the NW working group.
 - a. All members of the original meeting, and those most actively engaged in the general workshop presentation, unanimously approved the motion to ensure that Regina goes forward to the National Association representing not only the interests of the New World Luminescence Trapped Charge Association but as the Editor of the Ancient TL. Ancient TL is the official means of dissemination of the working group.