**Neandertal 3D meeting – RBINS – 28/02/2018**

Present: Victor Sholukha (VS), Panagiotis Gonidakis (PG), Lawrence Cammaert (LC), Patrick Semal (PS), Serge Van Sint Jan (SVSJ).

Absent: Bart Jansen (BJ)

Update on tasks:

**5.1, 5.2.5.3 Website content**

Difficulty with Sketchfab for use in Neandertal website as continually opens windows. To investigate if possible to use Unity . Website use also both black and white.

*Decision to make on do you use envelope or skeleton or both. Do you use clothes or remove them? Can they be spiderman/superman/break dancer. Red hair etc?*

*PS states to have outerskin in transparent and then animation with skeleton only. To discuss later. The task of creating the Neandertal avatar was a task for VUB although it may be possible to do this at ADIA with Joelle (the new stagiare who will work with Laurence Cammaert to build the website). This will be investigated when Joelle starts working at ADIA.*

**Action points:**

***SVSJ to organise facture for Joelle as soon as possible so she can start working***

***TC to provide current avatar body envelope and bones to Joelle (ADIA) who will see if we can use what we already have***

***TC to make an appointment with VUB and ULB to look at current serious games and if they are suitable for use in the project (to simply add the avator).***

***Joelle to investigate if possible to use unity with website to get around sketchfab problem of multiple pages***

**4.2 Preparation of models for easy printing**

Skulls have been printed. However, printing with low cost printer is a challenge. Discussion on 3D . Difficult to use low cost printers and produce good quality models. Best thing for schools may be to provide good quality model and then they print with Shapeways unless goal of school is to make printing part of a teaching syllabus. Most of the models ready

Complete digitisation of models done and put on sketchfab

Collections.naturalsciences.be/ssh-anthropology/collections/collections

**3.2 Development and implementation of new tools Update on lhpFusionBox**

PG has implemented new script for automated measurements in lhpFusionBox and also created a new feature to import OBJ files.

* PS and TC asked that it be also possible to export the OBJ files with texture which will be compatible with Sketchfab (Sketchfab can use OBJ, Blend and FBX models).
* PG reported problem with Scale dataset fix as Fedor and PG have stated that they cannot change code associated to this operation. TC asked PG to investigate with Fedor how this can be done alternately as a new function. Fedor implemented two new functions – surface mirror and then a separate mirror of landmark cloud mirror… Can the same application of the matrix to perform function of landmark cloud mirror also be used to scale the landmarks? Discussion on how to possibly do this (including putting in a new implementation
* PS asked for the possibility (which is detailed in user requirements to create a series of points and then take the area of those points).
* There was also a discussion on how to export results of measurements from automated scripts (i.e. export all measurements in a horizontal line in an excel or other file) as requested in user requirements. (This will also be necessary for functions later on (i.e. quadric surfaces).

A discussion was also held on priority of things to do in lhpFusionBox. **It was decided that the implementation of quadric surfaces and muscle wrapping were a priority although the tasks below should be addressed first.**

***Action points:***

***PG to send presentation (which has instructions on how to use new functions) and new copy of lhpFusionBox so that PS and TC can test new lhpFusionBox.***

***PG to check that all measurements can be used with the new automated script (SVSJ mentioned that there were some with four measurements and asked if these also worked). TC to also test and send to Alexandra ( a student of Caroline Polet) to test***

***PG to investigate possibility to export landmarks in an excel file or similar***

***PG to have departmental meeting with BJ and to let all know who will be responsible in the future for the Neandertal skeleton game and if PG will be indeed be in charge of quadric surfaces or it will be another colleague. If another colleague then meeting can be held sooner on quadric surface implementation.***

***PS to send model of different textures to PG to text how to export models. PG to investigate how to export OBJ and STLS (need to export these models).***

***PG to investigate how to do scale dataset.***

***PG to make a meeting with Victor to discuss how to transfer quadric surfaces.***

***Miscellaneous:***

***TC to send model of skull to SVSJ for article on Neandertal***

***TC to send out doodle to follow up committee to arrange meeting in April/May.***

Next meeting to be held on **26 March at 10.00 at ULB**. SVSJ to send out details. There will also be a seminar at 12.30 on the project.