

Rules and Instructions for Use of the Broadbent-Bolton Collection at the Bolton-Brush Growth Study Center

Thank you for your interest in the Broadbent-Bolton Collection, one of the most important collections of its kind in the world.

This packet contains what you need to know before using the Collection for your research. Please read it carefully. Before you may use the Collection, you must submit to the Center the following four items:

1. A protocol statement that summarizes the research you are doing and how you plan to use the data you wish to collect from the Center. The statement should be about one to two pages long and should include the research question you are asking and how you plan to address it.
2. A signed Researcher's Agreement (one for each researcher that will have access to the data), stating that your use of the Collection will conform to the rules delineated in this packet
3. A Letter of Guaranty, ordinarily from the Chairman of your academic department that guarantees payment of any fees you should incur according to the cost schedule included in the Research Packet -OR- a check or purchase order number to cover the cost of fees incurred according to the cost schedule included in the Research Packet.

Again, all of these items must be submitted to the Center BEFORE you may begin to use the Collection. I will be happy to address any questions you may have.

Sincerely,

Mark Hans
mgh4@case.edu

Use of the Broadbent-Bolton Radiographic Collections

Option 1: Traditional Light Box Tracing of Original Radiographs

1. Radiographs, models and all other materials are to be used **ONLY** within the confines of the Center. **NO MATERIAL IS TO LEAVE THE CENTER AT ANY TIME.**
2. All tracings are to be made on matte acetate paper positioned with masking tape. Each tracing shall be removed when the research is finished with the drawing and all tape removed. **NO MARKS OF ANY KIND ARE TO BE MADE ON THE FILM.**
3. All tracings shall include the four (4) registration points which have been permanently placed on each radiograph by the Curator.
4. Models may be accessed under the supervision of the Curator. Please be careful when measuring plaster casts not to use sharp objects that may damage the casts.
5. The Curator will access and re-file all records for the Researcher, based on a list provided to the Curator by the Researcher.
6. Records can be accessed Monday through Friday from 8:30 a.m. to 5:00 p.m. Computer facilities are available through arrangement with the Curator.
7. To prevent illegal copying of the Collection: Tracings of the radiographs are considered “copies” of the radiograph and are the property of the Center. A limited subset of landmark-based data, pertinent to their research question, may be taken away from the Center.

Fee Schedule for:

DIGITAL RADIOGRAPH USE

The charge for the use of digital radiographs *on-site at the Center* is \$10/ per subject visit, access hours 9:00 a.m. to 5:00 p.m.

The fee to borrow digital images is \$10 per x-ray. Therefore, a typical study involving 30 untreated age-matched controls would require a total of 60 images over 30 visits, and the loan fee would be \$600.

Radiographs can be selected, using the text database available from the Director of the Center or online at <http://dental.case.edu/boltonbrush/data.fp7> . Researchers can also visit the Center to examine the digital copies of the collection and make selections in person. Researchers using the CD collection to select images for CD loan will not be charged the daily use fee. The text database is in FileMaker Pro format. A free 30 day trial version of Filemaker Pro is available for download from the Filemaker Pro Website. <http://www.filemakerpro.com/>

One-half of the CD loan fee must be paid before the CD is created and the balance payable on delivery. A bill for access fees will be issued at the conclusion of the visit and payment is due within 30 days.

Digital copies are scanned at 12 bit grayscale resolution with a spatial resolution of 0.1 mm per pixel. Each image is approximately 40 MB in size when stored in uncompressed TIFF format. These images are readable by Adobe Photoshop and can be optimized by the researcher for analysis and display on commercially available software programs. Researchers should contact the commercial vendor of the analysis and display software they plan to use to determine compatibility with Broadbent-Bolton images. To test compatibility, a CD-ROM with sample images is available at no charge from the Curator. Researchers may request radiographs at two time periods for up to 60 untreated subject. Early records have a 100 mm lead impregnated scale placed at the mid-sagittal plane on the nasion rest that is projected onto the x-ray image. Later records have 3 lead dots spaced at 50 mm intervals that serve the same purpose. All films have a recorded distance (in cm) of the film from the mid-sagittal plan (lateral "ML") and from the porianic axis (frontal, "P+"). A conversion table in the book "Bolton Standards of Dentofacial Developmental Growth" allows for easy conversion to percent of enlargement.

At the present time and for the foreseeable future, the non-digital collection can be accessed by CWRU researchers and faculty personnel only.

FEE SCHEDULE
for

EQU OGTICN'RESEARCH USE OF NON-DIGITAL RADIOGRAPHS:

Sixty-four dollars (\$64) per Bolton Subject used, plus \$8 for each radiograph or set of study casts used. A typical case control study would cost the investigator \$80 per control subject (\$64 subject, \$8 for the control time – 1 film and \$8 for the control time – 2 film), e.g., 30 control subjects with 2 x-rays each would total \$2,400.

**CECFGO RE'RESEARCHERS ARE I KGP'URGEKN'TCVGUHQ
RECORDS USE. THESE WILL BE CUHQNNQY U'**

\$32'Rgt 'lwdlgev'xlw'vj cv'pggf u'tq'dg'teeguuf

RESEARCHER'S AGREEMENT

To induce the Bolton-Brush Growth Study Center (Center) to provide access to records of the Center, the undersigned Researcher:

1. Acknowledges having carefully read and understood everything stated in this packet.
2. Agrees that:
 - (a) All records of the Center (including, but not limited to radiographs, dental study models, tracings, digitized copies) and;
 - (b) All measurements and other data acquired or derived from records of the Center, are and will remain the property of the Center;
3. Agrees to use the property of the Center only in accordance with the research protocol submitted to the Director of the Center.
4. Agrees not to distribute the images electronically or in hardcopy. Researchers should make two backup copies of the data. However, such copies are solely for the Researcher's own use;
5. Agrees to return all property of the Center, including any original and backup copies maintained on any media, to the Center on demand;

Researcher's signature

Researcher's name printed

Date

Advisor's signature (if applicable)

Advisor's name printed

Date

Name of University

Department

Date

Dr. Mark Hans
Director
Bolton-Brush Growth Study Center
Bolton Dental Building
Case Western Reserve University
10900 Euclid Ave.
Cleveland, OH 44106-4905

Dear Dr. Hans:

I hereby guarantee payment of all obligations incurred by _____
Name of researcher

in connection with research in the Bolton-Brush Growth Study Center, including fees for
access and/or loan of data via CD-ROM, flash drive, or other media.

Chairman's signature

Chairman's printed name

Department of _____

Date

Purchase Order # _____

Cash/Check _____