Deadline of Submission of Comments: 19-Jan-26
Document Number: ASB Std 225
Document Title: Standard for Skeletal Preparation and Sampling in Forensic Anthropology

Comment #	Text Line # (s)	Document Section	Type of Comment E-Editorial T-Technical	Current Document Wording	Proposed Revision	Revision Justification	*For Working Group and Consensus Body use only, not to be completed by commenter.* Final Resolution
1	Preface	Preface	E	"This document encourages continued research and scholarly debate to improve skeletal preparation and sampling in forensic anthropology."	Eliminate or clarify this sentence.	Technically, this document contains no encouragement for research or scholarly debate.While the publishment of Anthropology Stanadards may encourage the field to do these things, I think this statement is uncessary (and slightly odd for a Standard to say).	accept with modification: Retained statement but language altered to encourage continued research without specifying this standard. This is language found in most of the anthropology standards
2	21 and 75	3.3 and 4.2.2.4.2	T	"The removal of soft tissue from skeletal remains through immersion in a liquid bath." versus "Maceration typically involves immersion in a warm water bath"	modify one or the other so they are consistent	definition and text conflict	accept with modification: Retained definition in 3.3 as is. Modified text in 4.2.2.4.2 to focus on the shall statement and not repeat definition
3	24	3	T	Terms and Definitions does not currently include proposed definition.	Add Anthro CB standard definition of skeleton/skeletal ("Osseous, cartilaginous, and/or dental tissues.") used in other documents to this section for clarity.	Skeletal preparation and skeletal reconstruction are described in this document and can include cartilaginous (typically ossified) and/or dental tissues. Adding the "standard definition" would be a clean way to ensure that those tissues are included in those subsequant definitions.	accept with modification: standard definition for skeletal remains added, so skeletal remains was used throughout document for consistency
4	32-34	3.7	E		move term & definition to before the term "skeletal preparation (processing)" and renumber 3.5, 3.6, and 3.7 to reflect the corrected order	terms not in alphabetical order	accept: terms are now in alphabetical order
5	33	3.7	E	Sampling	bold first s	Consistent formatting	accept: formatting corrected
6	34	3.7	T	"the selective removal of a bone or portion of a bone for testing"	"the selective removal of a bone, tooth, or portion thereof, for testing"	Sampling of remains by forensic anthropologists also often includes teeth.	accept with modification: The modification accepted in comment 3, resulted in using 'skeletal remains' throughout the document for consistency. Skeletal remains as defined in drafted TR214 includes osseous, cartilageous, and dental tissue so definition modified to use skeletal remains
7	50-51 and 60	4.2.1.3 and 4.2.1.7	E	"All applicable data collection procedures (e.g., visual examination, metric analyses) shall be completed before remains undergo sampling." and "Sampling may be necessary before preparation dependent upon case circumstances."	All applicable data collection procedures (e.g., visual examination, metric analyses) shall be completed before remains undergo sampling, when possible. NOTE: Sampling may be necessary before preparation dependent upon case circumstances.	These items are related and should be combined.	accept with modification: 4.2.1.7 merged with 4.2.1.3 as a subpart and not as note as recommended. They are clearly related and should be together
8	52-54	4.2.1.4	T	"The practitioner shall maintain close coordination and collaboration with the medicolegal authority, particularly for unexpected non-skeletal evidence (e.g., tattoos, finger or palm prints, projectiles) and destructive testing."	Separate out the multiple (two or three) requirements in this section for clairty into multiple sentences or a list. Example: The forensic anthropologist shall maintain close communication and coordinate/collaborate with the medicolegal authority to ensure that: (a) unexpected evidence discovered in the course the forensic anthropology exam (e.g., fingerprints, tattoos, projectiles) is communicated to the medicolegal authority, adaquately documented, and preserved, as appropriate; and (b) appropriate approval is granted for sampling/destrucive testing.	This sentence seems to confound several separate, but related, issues. Separating them into one sentence about communication, followed by two requirements, or listing them as three separate shall statements (communication, preserving evidence beyond skeletal remains, and permissions for destructive testing) would be more clear.	reject: The primary statement in this section was the coordination and collaboration (and by extension communication) with the medicolegal authority as is stated and examples of the type of information needing conveyance. Details pertaining to evidence management are outside the scope of this document so are not detailed here. The need for documentation is detaileded elsewhere in the document (4.2.1)
9	59	4.2.1.6	E	Equipment and instruments used in preparation and sampling should be documented	change 'should' to 'shall'	If this is an imperative, change to "shall"	reject: Since a lot of the equipment used in preparation and sampling is considered disposal, they are not traced in the same manner as other, quality-checked equipment (NIST certified). Making this a shall statement would suggest there are specific pieces of equipment as opposed to types of equipment that are to be used
10	60	4.2.1.7	T	"Sampling may be necessary before preparation dependent upon case circumstances."	Move sentence to under 4.2.1.3 as a NOTE and add "and/or data collection. "All applicable data collection procedures shall be completed before remains undergo sampling. NOTE: Sampling may be necessary before preparation and/or data collection dependent upon case circumstances."	4.2.1.7 does not contain a requirement. It provides clarification regarding the scenario in 4.2.1.3. Adding "and/or data collection" clarifies that under some circumstances sampling may need to take place prior to skeletal preparation and/or data collection.	accept with modification: see response to comment 7. These were merged

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11	68	4.2.2.3	T	Physical measures	Engineering controls	Revision would match the established hierarchy of controls	accept: Language modified to be consistent with common usage and understanding of this verbiage
12	74	4.2.2.4.1	E	Instruments such as scalpels or scissors should be utilized in a manner that mitigates damage	change 'should' to 'shall'	Statement may be more appropriate as an imperative than a recommendation, especially considering the requirement in 4.1.3 to limit or prevent adverse alterations of remains	reject: The shall statement is in the prior sentence to make imperative the need to minimize damage. The should statement acknowledgse the common usage of scissors and scalpels. The addition of the shall as requested would make for an impossible standard to achieve.
13	75-76	4.2.2.4.2	E	Maceration typically involves immersion in a warm water bath and boiling temperatures (≥212°F/100°C) shall be avoided.	Maceration typically involves immersion in a warm water bath, and boiling temperatures (≥212°F/100°C) shall be avoided.	add a comma between the two complete sentences	accept with modification: Modification of language resulting from comment 2 resulted in a language change making this comment obsolete
14	79	4.2.2.4.2.1	T	Chemical detergents and additives	Detergent, enzymes, and/or enzymatic detergents	Clearly describes the options available as opposed to hot water alone	reject: Specifying what is meant by additives is outside of the scope of this document and is more appropriate for a best practice detailing the types of additives recommended for use
15	88	4.2.3.1	T	isotopes	stable isotope analysis, radiocarbon dating	Clearly describes isotope testing	accept with modification: Changed istope to stable isotope analysis but did not add radiocarbon dating as this is not meant to be an exhaustive list for testing
16	89-91	4.2.3.2	T	Samples shall be taken from regions of bone not typically used in establishing a biological profile, supporting a personal identification, or that are otherwise analytically relevant (e.g., restored teeth, areas of trauma, measurements), when possible.	Samples shall be taken from regions of bone that are not analytically relevant (e.g., used to establish a biological profile, analyze trauma, or support a personal identification), when possible.	bad grammar (not parallel structure of clauses), last part of sentence doesn't make sense	accept: Sentence corrected as suggested
17	100	4.3.2	E	Skeletal remains retained for extended periods of time should be labeled	change 'should' to 'shall'	If this is an imperative, change to "shall"	reject: The preference is for labeling, but this is outside of the control of most practitioners and relates to the evidence handling procedures of the medicolegal authority so left as a should statement
18	102	4.3.3	E	"...shall be documented and reversible. ."	Remove extra period	Second period not needed	accept: corrected as suggested
19	102	4.3.3	E	materials used shall be documented and reversible. .	delete extra space and period	duplicated punctuation	accept: corrected as suggested

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1	81,82	4.2.2.4.2.1 note	T	Chemical detergents and additives may be used to facilitate the breakdown of adhering soft tissues, degreasing, and protein degradation.	Chemical detergents and additives may be used to facilitate the breakdown of adhering soft tissues, degreasing, and protein degradation; however, chemical exposure, heat-assisted maceration, and prolonged immersion may alter or degrade biomolecular signatures in skeletal remains. Skeletal preparation methods are often necessary to reduce biohazard risk, facilitate drying, and support long-term preservation and anthropological examination; however, these processes may not be compatible with maximal recovery of biomolecular data. When downstream DNA analysis, protein/proteomic analysis, including analysis of genetically variant peptides (GVPs), or metabolomic analysis is anticipated, practitioners should consider retaining an appropriate pre-cleaning or pre-maceration sample, when possible and with appropriate authorization. The use of chemical detergents or additives, including the type of agent, concentration where known, immersion duration, and temperature, should be documented.	The current note permits chemical detergents and additives during skeletal preparation but does not acknowledge the potential impact of these procedures on biomolecular evidence preserved within bone. While maceration and chemical treatment are often necessary to render remains safe to handle, facilitate drying, and support long-term preservation and anthropological examination, increasing use of forensic biomolecular approaches requires consideration of the balance between routine preparation practices and preservation of molecular evidence. Emerging methods, including DNA analysis, proteomics/GVP analysis, and metabolomics, rely on recoverable biomolecular signatures that may be altered by chemical exposure, heat, or prolonged immersion. The proposed wording does not prohibit standard skeletal preparation procedures, but encourages practitioners to consider future molecular analyses, retain pre-treatment material where appropriate, and document preparation conditions that may affect downstream testing.	reject with comment. The note discusses the possibility of chemical additives in a general manner. However, the concerns recommended in the revision are already covered in other sections of the proposed standard. 1)4.2.2.2 in consideration of anticipated downstream testing 2) 4.2.2.4.2.1 main statement on need to maintain integrity of skeletal material, which would include minimizing biochemical alterations 3) 4.2.1.5 discusses avoidance of the indiscriminate use of chemicals and 4) 4.2.1.3.1 would be a situation where sampling is completed prior to maceration if there is a concern of biomolecular changes due to anticipated testing.