

17-May-21
ASB Standard 147, Standard for Analyzing Skeletal Trauma in Forensic Anthropology

#	Section	Updated Section	Type of Comment	Comments	Proposed Resolution	Final
79	Title		T	Since this standard also includes information on reporting, in addition to analysis, I suggest changing the title to reflect the full scope of the standard. This will better inform readers of the content covered in this standard.	Change the title to read, "Standard for Analyzing and Reporting on Skeletal Trauma in Forensic Anthropology"	Reject: Reporting is covered in all standards, but not included in the title. The title is in line with other published anthropology standards.
25	Foreword		E	Comma needed between words 'interpreting' and 'and' (keeping use of Oxford comma consistent in document)	insert comma	Accept
26	Foreword		E	Comma needed between words 'during' and 'and' (keeping use of Oxford comma consistent in document)	insert comma	Accept
88	Foreword		E	"practitioners in recognizing..." doesn't make sense	change "in" to "for"	Accept
89	Foreword		E	Comma needed between words "interpreting" and "reporting"; this change will match formatting in the Scope	insert Oxford Comma	Accept
90	Foreword		E	Comma needed between words "during" and "after"	insert Oxford Comma	Accept
80	2		T	Some normative references that document both how and with what level of effectiveness categorical determinations of when trauma occurred and the trauma mechanism must be provided. Otherwise there is no clear basis for a decision maker in court to put the reported determinations in context.	Add references that demonstrate both how and with what level of effectiveness determinations of trauma timing and mechanism can be made under different conditions typical of case work.	Reject: There are no normative references required for the use of this document.
27	3.1, 3.2, 3.5, 3.7, 3.8, 3.9, 3.10, 3.11, 3.12, 3.13, 3.14 and other locations in the document that use the term "defect(s)"		T	Consider use of the term 'alteration' rather than 'defect.' 'Defect' carries a negative connotation, whereas 'alteration' merely indicates a change from the original/normal state.	Replace "defect" with "alteration" throughout the document.	Reject: The term "defect" is commonly used in the field of forensic anthropology.
91	3.4		E	Comma needed between words "pointed" and "beveled"	insert comma	Accept
92	3.4		E	two periods are present after "beveled"	delete second period	Accept
2	3.4		E	extra period at end of sentence	remove extra period.	Accept
93	3.6		E	shape should not be possessive, bone should be	change "bone shape's" to "bone's shape"	Accept
81	3.13	3.14	T	Use of the term conclusion, especially paired with the term "conclusive interpretation of trauma" in section 5, suggests that classifications sometimes can be made without uncertainty. Also need to add timing, number of impacts and direction of impacts to this definition since their interpretation is analogous to trauma mechanism.	Change this definition to read, "Classification regarding the mechanism, timing, or direction of impacts associated with the origin of skeletal defect(s) or quantification of the number of impacts based on quantitative and/or qualitative observations."	Accept with modification: Definition changed to the following "Opinion regarding the mechanism, timing, direction of impacts or minimum number of impacts associated with skeletal defect(s) based on quantitative and/or qualitative observations".
94	3.14	3.15	T	definition of trauma mechanism is "the mechanism...". It would be better to define this term without using the terms in the definition	replace with "The process that produces skeletal defects and may be classified as..."	Accept with modification: Definition changed to the following "The classification of an extrinsic factor that produces a skeletal defect."
82	3.14	3.15	T	Use of the term classification should be reserved to describe the outcome of a trauma interpretation. The definition of the basic mechanisms are the class labels for one of those classifications and are not themselves subject to classification.	Change this definition to read, "One of the four basic physical mechanisms, projectile, sharp, blunt, and thermal, that can produce skeletal defects."	Accept with modification: Definition changed to the following "The classification of an extrinsic factor that produces a skeletal defect."

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3	3.14	3.15	T	why is "blast" not considered here?	I would include blast trauma in the trauma mechanism list, and I would define it as well (in the definitions list)	Accept with modification: Blast trauma is a unique circumstance. I comment regarding blast trauma has been added to the Considerations Section
4	4.1		T	"and an individual competent in material evidence analysis shall analyze the material " --this is outside the scope of this document.	remove	Acpt with modification: The sentence was rewritten to solely address what the anthropologist should or should not do. Direction pertaining to other analyst was deleted.
5	4.1		T	Dimensions of skeletal defects resulting from trauma should be measured. -- most of this section should be caveated with "when appropriate."		Accept
6	4.1		T	Trauma interpretation shall be limited to when the evidence clearly supports the findings. Please define "clearly" and why would interpretation not include multiple scenarios? I can see times when more than one scenario can be supported "clearly" by the findings. Perhaps this needs to be re-thought to include wiggle room.	Add language that can support multiple scenarios/alternate scenarios when interpreting trauma (e.g. a fall from a height could mimic being struck by a car, depending on the injuries.)	Reject: The document is solely stating that interpretation must be based on the trauma/damage observed on the bone. Creating a list of possible scenarios is not ideal or recommended, but not prohibited based on the standard. The word "clearly" is deleted.
83	4.1		T	Since the dimensions of skeletal defects may need to be compared to various implements or projectiles that could have caused them, measurement uncertainties should be reported along with defect dimensions.	Change the sentence, "Dimensions of skeletal defects resulting from trauma should be measured." to read "Dimensions of skeletal defects resulting from trauma should be measured and reported with associated assessments of measurement uncertainty."	Reject: Dimensions of defects should not be directly compared to implements or projectiles. Dimensions of a defect are not considered a critical measurement therefore uncertainty is not needed for the report.
84	4.1		T	Evidence can only clearly support trauma interpretations when similar observations related to skeletal defects with known trauma mechanisms or timing can be used to establish the an appropriate level of support. As a result, the wording of the final sentence in section 4.1 should be changed.	Change the final sentence in section 4.1 to read, "Trauma interpretation shall be limited to situations where skeletal defects with known trauma mechanisms or timing clearly support the findings."	Reject: The trauma mechanism and timing are the unknown variables. Stating to only interpret trauma when these are known is nonsensical.
95	4.1		T	Ideally, the endocranial examination should occur after ectocranial trauma is documented AND other data are collected.	add "and other data are collected (e.g., digital imaging of the cranium, measurements for estimating parameters of the biological profile)" after "documented".	Accept with modification: Suggested wording added without example list.
96	4.1		T	Why is the measurement of skeletal defects not required ("should be measured")? This should be required and combined with the second sentence of this paragraph	add "including the measurements of dimensions" after "Descriptions shall include the location and characteristics of the skeletal defect" and then delete the last sentence in the paragraph: "Dimensions of skeletal defects resulting from trauma should be measured."	Reject: There are situations where accurate measurements are not possible and/or they don't add to the interpretation.
97	4.1		T	what is meant by "distribution pattern"? Is this to document their relative locations, order, or something else?	reword/clarify or define "distribution pattern" in terms	Accept with modification: "Pattern distribution" is changed to "spatial distribution" and definition added, see section 3.11.
98	4.1		T	the practitioner may not have any control over which evidence is analyzed by whom, so making this a requirement is awkward	instead clarify that the forensic anthropology practitioner shall not analyze foreign materials collected in association with a skeletal defect	Accept with modification: The sentence was rewritten to solely address what the anthropologist should or should not do. Direction pertaining to other analyst was deleted.
99	4.1		T	casting of sharp force defects is not mentioned here but is referred to in 4.2.2.4; casting should be addressed here as part of the documentation of trauma	add brief statement about casting, including full documentation prior to casting, etc.	Accept with modification: information added to the parenthetical in 3rd paragraph.
28	4.1, paragraph 1		E	The use of "shall" with "and/or" is a bit ambiguous here, and shall indicates that it is mandatory, when it may not be necessary or appropriate to use these methods in each case. There may also be other methods used (like metric analysis, since measurement is later required).	Revise to: "...may be examined grossly, microscopically, radiologically, and/or using other analytical methods as appropriate."	Accept with modification: Skeletal trauma shall be examined. Acceptable methods to examine trauma include gross, microscopic, radiographic, and/or using other analytical methods.
29	4.1, paragraph 2		T	The cranium does not necessarily need to be opened to perform an endocranial examination (for example, if radiology can be used), and opening would (I assume) not be recommended unless necessary.	Revise to: "Analysis of cranial trauma should include endocranial examination. This can be accomplished using radiology or dissection. Particularly if dissection is used, endocranial examination should be performed after ectocranial trauma is documented."	Reject: The sentence says "should" allowing individuals not to do this.

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30	4.1, paragraph 4		E	Anthropologists may not necessarily be qualified to describe (identify) foreign materials.	Either delete "and described" or modifying to "describe <i>in general terms</i> ."	Acpt with modification: The sentence was rewritten to solely address what the anthropologist should or should not do. Direction pertaining to other analyst was deleted.
31	4.1, paragraph 4		E	"Material evidence analysis" is rather specific, and may not necessarily apply to all non-skeletal materials recovered from remains.	Revise to: "The collection and analysis of foreign materials should be performed by or under the guidance of an individual qualified in the collection and analysis of the relevant material."	Acpt with modification: The sentence was rewritten to solely address what the anthropologist should or should not do. Direction pertaining to other analyst was deleted.
32	4.1, paragraph 5		T/E	"A distinction shall be drawn..." is ambiguous. By whom? For what purpose? These terms are already defined/distinguished in Sections 3.13 and 3.14	Revise paragraph to read: "Trauma interpretation shall not be provided unless supported by the skeletal evidence." Alternatively, this paragraph could be deleted and this comment or similar included in the Reporting section.	Reject: The current wording provides greater clarity than the suggested wording.
33	4.1, paragraph 5		T/E	Requiring a trauma description be given seems problematic, as it implies there is trauma present.	Revise paragraph to read: "Trauma interpretation shall not be provided unless supported by the skeletal evidence." Alternatively, this paragraph could be deleted and this comment or similar included in the Reporting section.	Accept with modification: Sentence is rewritten for clarity.
7	4.2		T	Procedure -- there should be some guidance here as to "why" this is the procedure, instead, it is blank. Why start at Trauma Timing? We may do that logically, but the rationale should be spelled out.	Procedure should encompass language regarding what is expected of the analyst, the process, and the reason why.	Accept with modification: Deleted and changed heading/numbering throughout.
35	4.2.1.1	4.2.1	E	The phrase "characteristics and morphology" is redundant, since morphology is a characteristic.	Remove "and morphology"	Accept
36	4.2.1.1	4.2.1	E	Comma not needed between "classified" and "using."	Remove comma.	Accept
100	4.2.1.1	4.2.1	E	no comma is needed between "classified" and "using"	delete said comma	Accept
37	4.2.1.1	4.2.1	T	The clause "using terms such as" implies that there are other options besides antemortem, perimortem, and postmortem.	Either delete "using terms such as" or include examples of other acceptable terminology.	Reject: There are other terms such as remote or acute.
8	4.2.1.1	4.2.1	T	Trauma timing shall be classified, using terms such as antemortem, perimortem, or postmortem. -- Victims of language problems here -- Postmortem damage is NOT trauma, per the document, but listed here as trauma.	This should likely say "trauma timing shall be classified as antemortem or perimortem. Postmortem damage should also be classified."	Accept with modification: Changed the word "trauma" to "defect" which could be antemortem or perimortem trauma or postmortem damage.
9	4.2.1.1	4.2.1	T	When a distinction cannot be made between antemortem, perimortem, and postmortem timing," -- this should be "in timing"	add "in" before timing.	Accept: Sentence rewritten to include "in timing"
85	4.2.1.1	4.2.1	T	Limitations associated with any classification should be disclosed, so the wording of the last sentence in 4.2.1.1 should be changed.	Change the last sentence in 4.2.1.1 to read, "Any limitations potentially affecting a classification of trauma timing shall be clearly documented and reported"	Reject: The suggested wording requires the analyst to list any limitation.
10	4.2.1.2	4.2.2	E	Please watch out for the needed Oxford commas. This opening sentence needs one. Please check entire document.	add comma(s)	Accept
101	4.2.1.2	4.2.2	E	comma needed between "described" and "reported"	insert necessary comma	Accept
102	4.2.1.2	4.2.2	E	"reported and include..." is awkward	add comma after "reported" and change "and include" to "including"	Accept with modification: This section was reworted and updated.
38	4.2.1.2, paragraph 1	4.2.2	E	This paragraph is a single sentence and would be clearer if broken into more than one.	Suggest revising to (incorporating suggestions below also): Features that indicate antemortem trauma shall be documented, described, and reported. Documented observations may include healed fractures or evidence of healing..."	Accept with modification: This section was reworted and updated.
39	4.2.1.2, paragraph 1	4.2.2	E	The "(e.g., photographed)" is not needed, as documentation was previously defined to include photography, and its inclusion sounds limiting.	Remove "(e.g., photographed)"	Accept
40	4.2.1.2, paragraph 1	4.2.2	E	Comma needed between words 'described' and 'and' (keeping use of Oxford comma consistent in document)	insert comma	Accept with modification: This section was reworted and updated.

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41	4.2.1.2, paragraph 2	4.2.2	T	The phrase "offer an opinion" seems not to convey what is meant, but rather (based on the definition in 3.13) it seem what is meant is that an interpretation will not be performed.	Revise to: "Practitioners shall not provide a trauma interpretation for antemortem trauma except in cases..."	Accept
86	4.2.1.3	4.2.3	E	Change the beginning of the first sentence in this section to improve readability.	Change the beginning of the first sentence to read, "Perimortem trauma shall be identified based on the presence"	Accept
42	4.2.1.2, 4.2.1.3, 4.2.1.4	4.2.1 4.2.3 4.2.4	T/E	These sections are introduced differently and appear to have different approaches/requirements. For example, antemortem trauma requires documentation, description, and reporting, but perimortem has no such requirements, and postmortem requires only documentation.	Revise sections for consistency. For example, have them all include what should be documented, what characteristics support this conclusions, terminology to use/not use, etc.	Accept with modification: The repeated wording of document, describe and report has been deleted because it is stated in 4.1. The beginning of each section has been made consistent.
43	4.2.1.4, paragraph 2	4.2.4	T	I do not think "fracture" is what is meant here, and fractures can apply to postmortem events and non-skeletal materials.	Revise to: "Defects[alterations] classified as postmortem should be described using terms such as "damage or "breakage"; the term "trauma" applies only to antemortem and perimortem events."	Reject: We are specifically stating that the word "fracture" should not be used. The sentence was rewritten to include the word "trauma" too.
12	4.2.2.1	4.3.1	T	No conclusions regarding wound sequencing shall be provided unless there are clear indications of the order of defects (e.g., a radiating fracture terminating at a preexisting fracture). Again, I go back to an earlier comment in the fact that there can be multiple interpretations for the same set of wounds that are equally plausible. Why would the analyst not offer multiple possibilities, rather than say nothing? I see this as short sighted.	Add language that can support multiple scenarios/alternate scenarios when interpreting trauma. Change the "shall" language out to "should" or lesser language. Add good guidance rather than a "all-or-nothing" verbiage.	Reject: When the evidence is inconclusive/equivical a trauma interpretation shall not be made. It shall only be described.
105	4.2.2.1	4.3.1	T	what is meant by "distribution pattern"? Is this to document relative locations, order, or something else?	reword/clarify or define "distribution pattern" in terms	Accept with modification: Changed distribution pattern to spatial distribution throughout the document and added a definition in section 3.11.
106	4.2.2.1	4.3.1	T	"When a distinction cannot be made between projectile, blunt trauma, and sharp trauma, the defect shall be clearly described, documented, and reported without interpretation". Does this mean that these are the only available categories? What about thermal? chops?	if there is a finite number of categories, these should be listed here	Accept with Modification: Sentence revised as follows "When the trauma mechanism cannot be classified, the defect shall be clearly described, documented, and reported without interpretation."
44	4.2.2.1, paragraph 1	4.3.1	E/T	The term "assignment" is inconsistent with previous terminology	Replace "assignment" with "classification."	Accept
45	4.2.2.1, paragraph 1	4.3.1	E/T	The term "category" is inconsistent with previous terminology, and examples are not needed since each option is described in the following sections.	Replace "category" with "mechanism" and remove "(e.g., blunt trauma, sharp trauma)"	Accept with modification: Revised to meet request. "Extrinsic, continuously variable and concurrent factors such as velocity and force may preclude assignment classification of trauma mechanism. "
46	4.2.2.1, paragraph 1	4.3.1	E/T	The term "distinction" seems inappropriate; it should refer to what is being done (classifying, not distinguishing)	Revise sentence to: "When trauma mechanism cannot be classified, the defect(s)[alteration(s)] shall be..."	Accept
47	4.2.2.1, paragraph 2	4.3.1	T	I disagree that reconstruction SHALL always take place, and also think that reversible methods should be advocated.	Revise sentence to: "Fractured bones may be reconstructed when doing so may facilitate assessment of trauma features and their distribution. Reversible methods of reconstruction are preferred."	Accept with modification: Concern addressed with adding may be reconstructed and a reversible medium.
49	4.2.2.1, paragraph 3	4.3.1	T/E	It does not have to be a radiating fracture (which is a specific type of fracture) that terminates into a preexisting fracture to determine sequence.	Remove the word "radiating"	Accept
103	4.2.1.3	4.2.3	T	"plastic response" is not in the terms list	replace plastic response with "plastic deformation"	Accept
104	4.2.1.3	4.2.3	T	"angular fractures" are not defined in the terms list	define "angular fractures" in terms list or describe what is meant here	Accept with modification: term angular fracture was deleted.

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48	4.2.2.1, paragraph 3; 4.2.2.2, paragraph 1; 4.2.2.2, paragraph 3; 4.2.2.2, paragraph 5, and elsewhere in the document	4.3.1 onward	T/E	I do not favor the word "wound," which also is not defined in the document	Replace "wound" with "defect[alteration]."	Accept: "Wound" was replaced with "defect" throughout the document.
13	4.2.2.2	4.3.2	T	A projectile trauma defect is produced by rapid application of force over a relatively small surface area, typically by projectiles from firearms, but can result from any small object impacting a bone at a high velocity. This sentence is a repeat of an earlier one. Use a different intro sentence	strike or use a different intro sentence.	Accept: Introductory sentences were removed in all subsection of section 4.3 except the general section.
107	4.2.2.2	4.3.2	E	first sentence in first paragraph is the definition provided in terms and is not needed here	delete first sentence of first paragraph	Accept: Introductory sentences were removed in all subsection of section 4.3 except the general section.
108	4.2.2.2	4.3.2	E	"Observed features indicating projectile trauma shall be documented and may include: a projectile in association with the bone, entrance or exit wound characteristics, residue, bullet wipe, or remnants of the projectile, fracture pattern with minimal to no plastic deformation, and concentric beveling that indicates an internal to external force."	consider separating features using semicolons rather than commas to group related items (e.g., "residue, bullet wipe, or remnants of the projectile;..."	Accept with modification: 'or' is deleted for clarity and a colon and commas are now included.
50	4.2.2.2, paragraph 2	4.3.2	T	This clause is a bit confusing. Could plastic deformation not also represent evidence that it is NOT a projectile trauma?	Delete this paragraph/sentence.	Reject with modification: Sentence was clarified by adding "In the context of projectile trauma" to the beginning
51	4.2.2.2, paragraph 3	4.3.2	E	The repeated "defect" is not needed in the parenthetical following "defect measurement"	Revise statement to: "...defect measurement (i.e., diameter)..."	Reject with modification: example is deleted.
52	4.2.2.2, paragraph 5	4.3.2	T	I do not favor the phrase "opine on," and specifying entrance wound[defect/alteration] measurement implies that other methods may be used to estimate caliber.	Revise sentence to: "Practitioners shall not make conclusions regarding bullet caliber."	Accept with modification: sentence changed to "Practitioners shall not estimate or report bullet caliber. "
53	4.2.2.2, paragraph 5	4.3.2	T	I am unfamiliar with the type of skeletal evidence that supports muzzle to target distance.	Include examples of skeletal findings that support conclusions regarding muzzle to target distance.	Reject: This is not within the scope of the document
11	4.2.2.5	4.3.5	T	Practitioners shall not estimate the temperature or duration of heat exposure from traumatized bone characteristics. Why not? Why is this a shall? I would think one could support type and nature of fire exposure with appropriate scientific evidence. This looks like over-reach in this standard.	Remove the "shall" and justify.	Reject: Research does not support making this estimation.
14	4.4.2	4.3.2	E	or shot cup which	precede which with a comma	Accept
15	4.2.2.3	4.3.3	E	A blunt trauma defect is produced by a low-velocity impact from a blunt object or the low-velocity impact of a body with a blunt surface. This sentence is a repeat of an earlier one.	strike or use a different intro sentence.	Accept with modification: The repeated wording of document, describe and report has been deleted because it is stated in 4.1. The beginning of each section has been made consistent.
16	4.2.2.3	4.3.3	E	The use of the word indicative or it's derivative in this paragraph is indicative of using the same word over and over again.	Maybe use a different word in a place or two.	Accept with modification: "indicating and indicative" were removed and the section was updated.
17	4.2.2.3	4.3.3	T	An interpretation of the minimum number of impacts and direction of impact(s) should be documented, when possible. What about sequence? I think the same rules should apply across the standard.	Add language on sequence here as well, noting comments above.	Reject with modification: This is included 4.2.2.1 (now 4.3.1) and does not need to be restated

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109	4.2.2.3	4.3.3	E	first sentence in first paragraph is the definition provided in terms and is not needed here	delete first sentence of first paragraph	Accept with modification: The repeated wording of document, describe and report has been deleted because it is stated in 4.1. The beginning of each section has been made consistent.
54	4.2.2.3, paragraph 1	4.3.3	T	Other sections (projectile, sharp) use a colon following "and may include"	Revise to: "...and may include: fracture patterns...." OR remove colon from other sections for consistency	Accept
55	4.2.2.3, paragraph 1	4.3.3	T	The term "concentric" refers to multiple/nested arc-shaped fractures, but such fractures do not always appear in multiples. The more appropriate term is "circumferential" which may be a single arc.	Change "concentric" to "circumferential" (2 instances in this paragraph)	Accept
56	4.2.2.3, paragraph 1	4.3.3	T	The last sentence implies that any staining represents a latent impact site.	Revise to: "Staining (which may result from blood and fat within crushed diploe) and other alterations which may represent impact sites in the absence of associated fractures shall also be documented."	Accept with modification: this sentence was edited for clarity.
18	4.2.2.4	4.3.4	T	Practitioners shall not determine a "match" between a specific tool and a tool mark. What happens when a specific tool has an unusual or individuating characteristic about it? Why "shall not" the practitioner opine in these instances?	I think the "shall" in this instance is overly pedantic and should be a "should" or other language that allows for wiggle room.	Reject: Forensic science has moved away from binding conclusions without statistical support. Using the terminology "consistent with" is acceptable.
110	4.2.2.4	4.3.4	E	first sentence in first paragraph is the definition provided in terms and is not needed here	delete first sentence of first paragraph	Accept with modification: The repeated wording of document, describe and report has been deleted because it is stated in 4.1. The beginning of each section has been made consistent.
111	4.2.2.4	4.3.4	T	this is the first time "casts" are mentioned in this document	casts should be mentioned in 4.1, as a possible option in addition to standard documentation	Accept: Added in section 4.1
57	4.2.2.4, paragraph 2	4.3.4	T	I do not think we want to say that if there are tool marks, a practitioner SHALL provide an interpretation of the tool class - this may not always be possible or prudent depending on the nature and extent of the tool marks. Also, I think the use of the term "match" (in quotations) may be confusing/misleading since this term may have varied meanings in different disciplines.	Revise to: "Defect[alteration] features may reflect characteristics of the tool that created them, and may be used to interpret the tool class. These features shall not be used to associate the features to a specific tool."	Accept with modification: this sentence was edited for clarity.
58	4.2.2.4, paragraph 3	4.3.4	T/E	The first sentence sounds different in spirit than other parts of the document.	Suggest revising to: "Any fractures associated with sharp trauma shall be documented."	Accept with modification: "Described" was replaced by "documented".
59	4.2.2.4, paragraph 3	4.3.4	T	This seems out of place and not appropriate to this document (or section)? If they are "pseudo" trauma (as in NOT trauma), why would they be documented as trauma? Also, what are the causes of "pseudo-sharp" trauma?	Delete this sentence.	Reject: This information is within the scope of this document and it is important information for this section.
19	4.2.2.5	4.3.5	T	A thermal trauma defect is produced by exposure to high temperature or direct contact with flame. Again, opening sentence is a repeat.	strike or use a different intro sentence.	Accept with modification: The repeated wording of document, describe and report has been deleted because it is stated in 4.1. The beginning of each section has been made consistent.
112	4.2.2.5	4.3.5	E	first sentence in first paragraph is the definition provided in terms and is not needed here	delete first sentence of first paragraph	Accept with modification: The repeated wording of document, describe and report has been deleted because it is stated in 4.1. The beginning of each section has been made consistent.
113	4.2.2.5	4.3.5	T	what is meant by "Skeletal defects inconsistent with thermal trauma shall be documented."? Does this mean that thermal trauma and other trauma shall both be documented, especially in consideration that thermal alteration may be used as an attempt to obscure other types of trauma?	clarify	Accept with modification: When thermal trauma and other trauma (e.g., sharp, blunt, projectile) coexist, all trauma types shall be clearly delineated in the documentation.
60	4.2.2.5, paragraph 1	4.3.5	T	What are the different "types" of thermal fractures?	Clarify with examples or delete.	Reject: Thermal fracture types are clearly documented in the literature.

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61	4.2.2.5, paragraph 1	4.3.5	T	Curvilinear fractures are well documented to occur in burned bone of any starting state (not just biomechanically fresh bone), and therefore their absence does not imply bone state at burning	Delete "absence of curvilinear fractures"	Accept
62	4.2.2.5, paragraph 1	4.3.5	T	I am unclear on the last statement of this paragraph. What are examples of "skeletal defects inconsistent with thermal trauma"? Aren't most other types of trauma in this category?	Delete this sentence or provide examples/clarification.	Accept with modification: When thermal trauma and other trauma (e.g., sharp, blunt, projectile) coexist, all trauma types shall be clearly delineated in the documentation.
63	4.2.2.5, paragraph 2	4.3.5	E	I think there is a grammatical issue with "follow expected tissue shielding" because it is the pattern that is expected, not the shielding.	Revise parenthetical to: "(i.e., patterns that are inconsistent with those expected due to tissue shielding)"	Accept
64	4.2.2.5, paragraph 3	4.3.5	T	It is unclear what it meant by "traumatized bone characteristics" which is not a term used previously in the document.	Revise to: "Practitioners shall not estimate the temperature or duration of heat exposure based on thermal defects[alterations] to bone."	Accept
114	4.2.3	5	E	"including decedent age, sex, health status and comorbidities as well as bone and fracture type and fracture location" is a poorly constructed and run-on phrase	re-write as "e.g., decedent age, sex, health status, and comorbidities; bone and fracture type; fracture location"	Accept
115	4.2.3	5	T	The definition of "skeletal" includes cartilage, so "In addition to skeletal defects, cartilage may also be analyzed as a component of skeletal trauma analysis." is not necessary	delete "In addition to skeletal defects, cartilage may also be analyzed as a component of skeletal trauma analysis."	Accept
116	4.2.3	5	E	"When evaluating skeletal trauma, pathological conditions, anomalies, or taphonomic changes may mimic skeletal trauma." Does this mean that these don't mimic trauma if you are evaluating the biological profile?	delete "When evaluating skeletal trauma, " from the start of the sentence	Accept
65	4.2.3, paragraph 1	5	T	This paragraph seems to rely heavily on comparison to pathology. Should a reference be considered? I believe this could also be handled by simply referring to the anthropological definition WITHOUT reference to pathology. It also seems irrelevant to specify "when working with skeletal or decomposed remains." Also, given that this relates to reporting, should it be moved to that section?	Revise paragraph to: "The term "perimortem" in forensic anthropology refers to trauma that occurred while the bone was in a biomechanically fresh state, regardless of the temporal relationship to the death event. When perimortem trauma is identified, a definition of "perimortem" in forensic anthropology should be included in the report." Also, consider moving to "Reporting"	Accept with modification: Combined original wording with suggested wording to make a clear and concise statement. The issue is more significant than just reported and should be retained in Considerations and Adjustments
66	4.2.3., paragraph 2	5	T	It sounds odd to say that a possibility shall be documented. Also, the spirit of this statement is inconsistent with others in this section. Also, "injury" is not previously used or defined in the document.	Revise to: "A single impact/trauma event may result in fractures of several bones (e.g., a fall resulting in multiple fractures to a body region)."	Accept with modifications: this sentence was edited for clarity.
67	4.2.3, paragraph 3	5	T/E	The first sentence is quite cumbersome to read, and also fracture location is not an "intrinsic factor." And are comorbidities not included in "health status"? And "should be considered" is implied since this is under "considerations."	Revise paragraph to: "Intrinsic properties of bone may be affected by factors such as decedent age, sex, and health status. These properties affect bone's response to force, and may also affect fracture healing rates."	Accept with modifications: this sentence was edited for clarity.
68	4.2.3, paragraph 4	5	T/E	I assume defects in cartilage are meant to be examined?	Revise to: "As part of the skeletal system, defects[alterations] to cartilage may also be the subject of skeletal trauma analysis."	Accept with modification: This section was deleted.
69	4.2.3, paragraph 5	5	T	This statement about things that may mimic trauma seems unnecessary. Things that mimic trauma are not trauma and therefore are not relevant to this document. This document presumes that a practitioner knows what skeletal trauma is (and is not).	Delete paragraph.	Reject: Statement is clearly written as is and is needed
70	4.2.3, paragraph 6	5	T/E	The first statement about what forensic anthropologists are responsible for seems unnecessary, and moreover agency requirements may differ as to what the responsibilities of a forensic anthropologist are.	Delete the first sentence such that the paragraph reads: "Forensic anthropologists shall not make conclusions regarding cause or manner of death."	Accept with modifications: this sentence was edited for clarity.

#	Section	Updated Section	Type of Comment	Comments	Proposed Resolution	Final
20	5	6	T	Practitioners may report the minimum number of traumatic events (e.g., blunt impacts, projectile entry defects, or sharp defects) observed skeletally, but shall not report a definitive maximum number of impacts, as skeletal trauma evidence may not reflect all impacts to the body." Doesn't this go against some of the earlier language as noted in these comments? Given this, the other comments should likely be accepted, or this needs clarification.	might need some word smithing here.	Accept with modification: the reporting section was updated.
21	5	6	T	"Identification of a specific tool shall not be reported; rather, the characteristics of the defect shall be described. When a suspect tool is submitted for analysis, similarities between the tool and defect may be reported; conclusions shall be reported in terms of an exclusion or failure to exclude." This is internally inconsistent with the language in section 4.2.2.4. Again, see comments here, and modify as necessary.	Will need a comprehensive evaluation of this paragraph with the guidance in section 4.2.2.4, and comments presented here.	Accept with modification: the reporting section was updated.
22	5	6	T	"With regard to report terminology, guidance for the anthropologic use of the term perimortem should be included in the report, when applicable." This sentence/idea is also in 4.2.3, thus they should be combined or this one removed.	remove or combine.	Accept with modification: the reporting section was updated.
23	5	6	T	Terms considered inflammatory or indicating a particular outcome such as "victim" (vs. "decedent"), "weapon" (vs. "tool" or "object"), "violent", "painful", "fatal," "suffer" (as in "suffered an injury"), or "lethal" shall not be used. I would think this is a bit pedantic as well. How about "should" versus shall?	use should instead of shall.	Accept with modification: The reporting section was updated for clarity.
24	5	6	T	The Reporting section is problematic. There are no directions on how and where things are reported, who keeps the raw notes/data, how long these things are kept, whether or not it should be digital or hard copy, how things are authenticated, etc. It should indicate the process of identifying the repository of record/agency of record, and that should be decided in advance of closing the process.	This section really needs to be fleshed out appropriately, OR it needs to call to another Standard on "Reporting Requirements" for Anthropology. Since this has no teeth, there is nothing anyone can say if they didn't retain notes, file notes, etc. In general, the reporting section needs work, and I think the WG should examine this in detail. I realize that this is a re-occurring comment, but it can be addressed in each standard, rather than waiting for another standard to be created in 1-3 years.	Reject: This is outside the scope of the document.
71	5	6	T/E	Many of these items seem to be more "considerations" rather than directly related to reporting.	Consider (perhaps based on revisions) whether some of these items should be moved to "considerations" rather than "reporting."	Accept with modification: The reporting section and select sections of this document were updated for clarity.
87	5	6	T	Use of the term "Conclusive interpretation trauma" suggests that classifications regarding the mechanism or timing of trauma can be made without uncertainty. Wording of this sentence should be changed to avoid this implication.	Change the sentence to read, "Interpretation of trauma may not be possible due to the nature of the trauma or the condition of the skeletal material;"	Accept with modification: The term "Conclusive" deleted.
72	5, paragraph 1	6	T	I think it is unrealistic (and unclear) to say that ALL findings SHALL be reported. Does this mean for example that every radiograph needs to be in the report? It also seems that it is difficult to indicate what all (specifically) should be included since trauma analyses can be varied. Suggest something more related to understanding findings from relevant examinations.	Revise to: "The report shall include the methods used and the findings. This may include, as appropriate, anatomical location and distribution of trauma, as well as trauma timing and mechanism."	Reject with modification: The word "all" changed to the word "relevant"

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73	5, paragraph 2	6	T	What is a "conclusive interpretation"? Aren't interpretations, by their nature, not necessarily definitive?	Revise to: "Due to the nature of the trauma or the condition of the remains, it is not always possible to determine the timing or mechanism of trauma with certainty. When trauma interpretations are provided, they will clearly be identified as such in the report." Also, consider moving this guidance to the Reporting section.	Accept with modification: The term "Conclusive" deleted.
74	5, paragraph 3	6	T/E	This paragraph is a single sentence that is a bit cumbersome. And although the term "report" is used currently, this seems to be more of a "Consideration."	Revise to: "The minimum number of impacts or trauma events may be evidenced skeletally. The maximum number, however, shall not be estimated through skeletal trauma analysis, since not all impacts/traumas may have affected the skeleton." And consider moving to "Considerations."	Reject: The reporting section is updated for clarity. The statement is specific to reporting.
75	5, paragraph 4	6	T	This statement on comparison to tools seems inconsistent with previous guidance indicating that only class characteristics can be interpreted. Also, the portions here about describing the trauma seem redundant.	Delete paragraph.	Reject with modification: Moved statement about tool comparison to Considerations in section 5. The entire section 6 was updated for clarity.
76	5, paragraph 5	6	T	The reporting of a definition of "perimortem" is already discussed. The multiple quotation marks and parentheticals make the paragraph rather cumbersome to read, and the quotes do not seem necessary.	Revise paragraph to: "Reporting shall avoid terminology that may be considered inflammatory, imply a particular outcome, or imply intent. Terms to avoid include but are not limited to: victim, weapon, violent, painful, suffer, lethal, and hesitation mark.	Accepted with modifications: Suggested change made, but comment regarding hesitation marks moved to sharp force trauma.
77	5, paragraph 6	6	T	This paragraph does not relate to a reporting matter. Also, other standards do not address record retention or evidence disposition. This information might reasonably be included in another document on forensic evidence documentation and evidence disposition.	Delete paragraph.	Accepted with modifications: Rewrote paragraph to more clearly address trauma analysis.
1	?			Dismemberment should be clearly include to avoid confusions among practitioner. It should be included, according to the definitions provided, in the perimortem trauma.		Accept with modification: a statement was added to the sharp force trauma section.
34	?			In many cases in the document, there is an implication that trauma is present and that a full skeletal trauma analysis is performed in every case. In some cases, investigative or other information may make unnecessary certain aspects of a trauma analysis, but the "shalls" in the document suggest they will be done anyway.	Add a paragraph/statement to the General section reading: "Not all aspects of skeletal trauma analysis in this standard may be applicable in every case. Partitions shall follow the relevant or applicable portions of this standard."	Reject: It is inherent that only the portions of the document that are applicable should be followed.
78	?			In many cases in the document, there is an implication that trauma is present and that a full skeletal trauma analysis is performed in every case. In some cases, investigative or other information may make unnecessary certain aspects of a trauma analysis, but the "shalls" in the document suggest they will be done anyway. Suggest adding to the General section that not all aspect of trauma analysis may be applicable in all cases.		Reject: It is inherent that only the portions of the document that are applicable should be followed.