



**SDI Review Form 1.6**

Journal Name:	<b><u>Physical Science International Journal</u></b>
Manuscript Number:	<b>Ms_PSIJ_39806</b>
Title of the Manuscript:	<b>Morphometric studies of pebbles from Ewen area, Calabar Flank, Southeastern Nigeria: implications for paleoenvironmental reconstruction</b>
Type of the Article	<b>Original Research Article</b>

**General guideline for Peer Review process:**

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	<p>The manuscript entitled "<b>Morphometric studies of pebbles from Ewen area, Calabar Flank, Southeastern Nigeria: implications for paleoenvironmental reconstruction</b>" could be significant to understand the paleoenvironment around Ewen region of Southeastern Nigeria. Meanwhile, I have gone through the manuscript and found some issues which need to be rectify while submitting the revise version. My main concerns are as follows:</p> <p>(1) Title has to revise as "<b>Pebble morphometry of Ewen area, Calabar Flank, Southeastern Nigeria: implications for paleoenvironmental reconstruction</b>"</p> <p>(2) In abstract section "The result.....roundness chart" should go to methodology section.</p> <p>(3) The values need not to be discussed in abstract. Here, only mentioned the variety of depositional setting obtained from your results and also discuss the distinguished paleoenvironment conditions in and around the studied sector.</p> <p>(4) In Abstract section, revise sentences from "these were.....transitional setting".</p> <p>(5) Elaborate on the Introduction section more, to understand how the pebble morphometry is useful with cited the previous work.</p> <p>(6) In Introduction section: Separate the Para from Morphometric characteristics.....sedimentary environment".</p> <p>(7) Separated the Paragraph after "Initial Study.....Nigeria" with merging Lines 14-15.</p> <p>(8) Some of the Figures are good quality but poorly explain.</p> <p>(9) In Geological setting section: revise the para with resolving the grammatical mistakes.</p>	<p>1. <b>Pebble morphometry of Ewen area (Awi Formation), Calabar Flank, Southeastern Nigeria: it's significance for paleoenvironmental reconstruction.</b></p> <p>2. " Roundness of the pebbles were estimated using the Power [38] roundness chart and its accuracy was ensured with direct measurement of randomly selected pebbles as outlined in [39-41]".</p> <p>In the abstract it was mentioned in the methodology section and also captured in the manuscript, however the random selection for confirmation was not stated in the abstract as it was thought to be too much details, that was why it was left out.</p> <p>3. These values are in agreement with those of modern fluvial pebbles.</p> <p>In the course of the work, this point was buttressed using the value/result obtained from the study and the morpho-types of the pebbles collected.</p> <p>4. This result was integrated with the deductions from bivariate plots of roundness against elongation ratio and sphericity against OP index and they all inferred the deposition of the conglomeratic sandstones in a fluvial setting with subordinate transitional setting.</p> <p>5. Heretofore, not much exist in the literature on the detailed lithofacies description and sequence stratigraphy of the Awi Formation except for the few studies by Boboye and Okon 2014; Itam et al 2015; Essien et al 2016. Their studies focussed on the sedimentological characteristics of some road cuts exposed along Calabar - Ikom highway and those of Abbiati area near Mfamosing Village. This study focuses on the conglomeratic facies of the Awi Formation exposed across 4 locations around Ewen village (Fig. 1), southeastern Nigeria; an area that has previously never been described.</p> <p>6. Done.</p> <p>7. Done</p> <p>8. Addressed.</p> <p>9. Done</p>



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	<p><b>(10)</b> In Result and discussion section: Line 91-92 has to place in methodology section.</p> <p><b>(11)</b> Use only one format either Figure or Fig. throughout the text and Captions to the Figures as well.</p> <p><b>(12)</b> Most important the authors have ascribed the general morphology of Pebble in result and discussion section and lacking to explanation the palaeoenvironment conditions around Ewen region. It is based on assumptions only as the data is poorly discussed.</p>	<p>10. No, I do not agree to this. The Table is part of the result and the statement on Line 92 and 93 represents a presentation of the result of analysis.</p> <p>11. Noted, this manuscript will stick to Fig. in the text and Figure in the captions.</p> <p>12. This has been taken care of in the discussion. Pebble morphometric data aid in understanding the dynamic that shape the angular grains to eventually make then spherical/rod-like. However, these assertions have to carried out with some caution. These are all taken care of in the final analysis of the data presented here.</p>
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<p><b>Minor</b> REVISION comments</p>	<p><b>Line 23:</b> add references  <b>Line 23-24:</b> Sentences seems incomplete please likely to mention the author name first than number in superscript e.g, Reymen<sup>7</sup>. After completing the sentence reference should be mentioned in number similar in line 20. Furthermore, if sentences are completing with "by", "according to" in such case first specify author name and then add given number in superscript as suggested above. Change text accordingly.</p> <p><b>Line 27:</b> after "Awi formation " add the references citing the previous work on similar theme such as Essien NU et al., 2016 (pebble Morphometry) with explaining how the present investigation differ from previous vis as vis cited other related articles published from Awi area.</p> <p><b>Line 61:</b> change the word "graciously" with other suitable word.  <b>Line 61-68:</b> needs to be revised.  <b>Line 126-127:</b> needs to be revised.  <b>Line 149-150:</b> Delete the sentences "the factor..... his interpretation. There is no significance of this.</p> <p><b>Figure 1:</b> Legend and words inside the map are not visible. Why the GMS and Amphibolite shown in map which resembling the lithological profiles around the Ewen area (See colours code in legend). In view of that geological map has to be required.</p> <p><b>Figure 2:</b> Have the author prepared the tectonic map during present investigation? If the area was not map for present study then reference should be provided in parenthesis and also likely to combine the Figures 1 and 2.</p> <p><b>Fig. 3:</b> Have the authors prepared the litholog? If not please cite the reference in Parenthesis.</p> <p><b>Fig. 6:</b> Use "highly" instead of "very" e.g., "Very Bladed" to "Highly Bladed".</p>	<p>Done.</p> <p>Thanks, this observation was helpful and informative, I have learnt now how to make this reference.</p> <p>The work of Essien et al 2016, Itam and Inyang 2015 and that of Boboye and Okon 2014 touched aspects of pebble morphometry; however, this study around the vicinity of Ewen has never been carried out. At a point it was thought that it wasn't part of the Awi Formation, until much work in the area began in earnest within which this study was extracted.</p> <p>Done Done Done Done</p> <p>Corrected, map redrawn</p> <p>The references for the tectonic map has been cited.</p> <p>The lithostratigraphy of the Calabar Flank as presented is a modification from field studies by the first author during his MSc and PhD research and this lithologies as presented has not been published elsewhere in this format.</p> <p>I have only adopted a plot prepared by the author (Sneed and Folk), they used 'very' in their description and I think that goes just well.</p>
<p><b>Optional/General</b> comments</p>		<p>I like to thank the reviewer for these valuable comments that have gone a long way to upgrade this manuscript to its present state.</p>