

THE EXCAVATION OF GUA ANGIN, JERANTUT, MALAYSIA

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Introduction

Gua Angin is situated in the Kota Gelanggi area. From the geological aspect, this area belong to Semantan Formation which is dated to Middle Triassic (age between 230-240 million year ago). There are 3 rivers in the area of this excavation site. The main rivers are Pahang River, Tekam River and Salan River. Batu River and Temuan River is a branches of Tekam River which is flowing near the Gua Angin. Reading from the Sony Pyxis GPS IPS-360, the Latitude is $3^{\circ} 53' 28''$ N and Longitude $102^{\circ} 28' 45''$ E. Base on the Sheet 4060 Series L7030 Edition 1-PPNM 1994, Gua Angin is about 12 km, from Jerantut.

This cave is near Kota Tongkat and Kota Balai. Kota Tongkat was investigated by I.H.N. Evans in 1917,¹ B.A.V. Peacock and F.L. Dunn in 1967² and Ahmad Hakimi Khairuddin in 1993³ and 1997.⁴ While Kota Balai was excavated by Adi Haji Taha in 1981 and 1982.⁵ Gua Angin is never mention by any scholar and this excavation is totally new and we are the pioneers to investigate this site. The excavation of this site was conducted between 1st to 30th March 1998.

Gua Angin Excavation

This rock shelter is about 24 meter long, 10 meter wide and 12 meter high. Datum point was established at the middle of the cave. Eight test trenches have been opened. They were indicate as 98.1 to 98.8. All of the trenches are measured by 2m x 2m.

Trench 98.1

This trench has been dug up to 125 cm and the findings are as follow:

| | | |
|---------|---|--------------------------|
| Surface | - | Light Brown (7.5 YR 4/4) |
| Layer 1 | - | Brown (7.5YR 5/4) |
| Layer 2 | - | Strong Brown (7.5YR 5/6) |

Sterile layer occurred earlier than Trench 98.2.

Findings

Among the artifacts found in this trench were pottery (including red-slip), charcoal, shell (*Brutia Costulla*, *Spinoza*, land snails and *Bivalvia Unio sp.*), lithic tools (stone tool, lime stone, anvil stone, waste flake, pebble tool, grinder stone), fauna (canine, beak, monkey bone, bone) and hematite. Total findings are 431 (see the Appendix 1).

Trench 98.2

This trench was dug up to 165 cm and can be divided into 3 layers. The Upper Layer contained humus soil belong to Brown (7.5YR 5/2). Layer 1 was indicated by Brown soil (7.5YR 5/4). Layer 2 belonged to Dark Brown (7.5YR 3/4) while layer 3, indicated by Strong Brown (7.5YR 4/6). Sterile layer occurred at 36 cm from the surface.

Findings

The artifacts found was same as in the Trench 98.1 with additional in lithic tools (truncated tool, flake), fauna (teeth and freshwater turtle) and resin. Total findings are 431 (see the Appendix 2).

Trench 98.3

The depth of excavation is as same Trench 98.1 ie. 125 cm. The stratigraphies are as follows: surface and layer 1 is indicate by Brown soil (7.5 YR 5/5), layer 2 with Dark Brown soil (7.5 YR 4/4), layer 3 indicated by Dark Brown soil (7.5 YR 4/3) and layer 4 - Strong Brown (7.5 YR 4/6).

Findings

The findings from this trench is richer than the first two. Total artifacts are 2042 (see the Appendix 3). But the artifacts is the same as the other two trenches with an additional of pendant, utilise flakes and core tool. The most artifact found are *spinoza* 921 (45.1%), pottery 475 (23.2%), animal bone 279 (13.6%), *costula* 156 (7.6%) and *bivalvia Unio sp.* 101 (4.9%).

Trench 98.4

This trench was dug for 125 cm. Sterile layer was almost the same of Trench 98.3 and 98.4. Three layer occur in this trench. Iron was found 10 cm from the surface and one *amphideramus* was first found in this trench. Total artifacts are 1059 (see the Appendix 4) where pottery, *costula* and animal bones are major finding. Their totals are 364 (34.4%), 340 (32.1%) and 241 (22.8%) respectively (see the Appendix 4).

Trench 98.5

This trench has been dug up to 150 cm and only have 1 layer with a Light Brown soil (7.5 YR 6/4) started at around 15-25 cm. This is not a rich trench where only 4 stone tools (1.9%) was found while pottery 62 (29%). Other were *costula* 123 (57.5%) (see the Appendix 5). Looking at the position of the trench with is situated at higher ground, we believe that people have not used this part of rock shelter as a resting place.

Trench 98.6

At the first 3 Spit, beads was found and at one spit below, one piece of porcelain was also found. This indicated that people here involved in trading activities with outsiders by using the river nearby to this settlement. At spit 6 (82-87 cm), iron was found. The first *in-situ* artifact that were found here is stone adze. This tool was found at the depth of 47 cm from the surface with a measurement of 10.4 cm (long), 4.7 cm (wide) and 0.5 cm (thick). At the actual depth of 62 cm, Hoabinhian tool was found adhere with a pottery. Total artifacts found are 3548 where 1283 (36.2%) are pottery, 1239 (34.9%) – *spinoza*, and 662 (18.6%) – animal bone.

Comparing with other five trenches, occurrence of Hoabinhian stone tools were more frequent. Among the stone tools were stone adze, waste flake, broken tool, bifacial, core tool, broken pebble, flake, truncated tool, pointed tool, hematite grinder, pebble tool and grinder tool (see the Appendix 6). This trench was dug for 145 cm.

Above of this trench, there is a mark of thick soot beneath the roof of the rock shelter. This was a result from burning of fuel for a very long period of time. Most probably, this area were used by people in the wet monsoon season or flooding month.

Trench 98.7

Total artifacts found were 1216 where animal bone was 433 (35.6%), pottery 260 (21.4%), *spinoza* 245 (20.1%) and waste flake 99 (8.1%). Hoabinhian tools are the same as trench 98.6 (see the Appendix 7). This trench was dug for 125 cm.

Trench 98.8

At this trench, 2 samples have been sent for a radio carbon date. At Layer 3, shell sample near the complete pottery was dated 4820 ± 110 BP (Beta-118364). The complete pottery was 7 cm diameter and 6 cm height. It was found at spit 14, (150-155 cm), AB - 75 cm, BC - 22 cm, AD - 63 cm and DP - 85 cm. The other shell sample was taken from spit 21 (185-190) or 105 cm from the surface and gave a date of 6000 ± 80 BP (Beta-118365).

Just one spit below, spit 22 (190-195), another important and interesting artifact was found ie. edge-ground stone tool which is very few found in the excavation site in Malaysia. The actual depth of this tool is 92 cm. Total number of artifacts found were 1514 where pottery are 762 (50.3%), *spinoza* - 426 (28.1%), animal bone 155 (10.2%) and waste flake 41 (2.7%) (see the Appendix 8). This trench was dug for 110 cm.

Discussion

From the artifacts found and the C14 date, we believe that the lower layer belongs to the Hoabinhian period while the upper layer where the ceramic found are belong to the Neolithic culture. Our opinion are appears to contradict with Dunn's findings in Gua Kechil, Pahang.⁶ At this site, Dunn found that Hoabinhian artifacts comprising decorated and undecorated ceramics at the upper occupation of 40 cm. thickness.⁷ The appearance of ceramics might indicate the emergence of Neolithic culture at this Gua Angin. This have been confirmed as we found a polished stone axe belonging to the Neolithic culture at Trench 98.6.

Conclusion

The findings of pebble tools indicated that it was produced by Hoabinhian and Neolithic people. As mentioned by Kamaruzaman⁸ and in his Hanoi paper,⁹ indirectly, that Gua Taat society in Terengganu had a close relation with the Hoabinhian people who lived in Gua Cha in Kelantan and Kota Gelanggi, Jerantut, Pahang.¹⁰ And now Gua Angin can be added as another archaeological site in Kota Gelanggi area.

The relationship between people at Gua Angin and Gua Cha (also Gua Taat) in older days can be accepted because they are using the Penarikan Route. This route still exist which link Patani (Thailand) and Muar (Johor, Malaysia) through Kelantan, Terengganu and Pahang.

Based on this, Noone's and Benjamin's opinion can be accepted.¹¹ Noone has given two Neolithic people's routes (which is we also believe that it has been used also by Gua Angin people as well) from Tembeling River to Terengganu.

This can be confirmed by the activities of the Orang Asli "Semaq Beri" today who live in Kampong Paya Petai, about 12 km from this cave and always travel to Kelantan and Terengganu. The list of Orang Asli who live in Jerantut District can be view in Appendix A.

As Benjamin,¹² in 1960's, used to walk into the remote area, employing the same routes that have been used by the Orang Asli since prehistoric period, Azman re-confirmed it. As he told Kamaruzaman in an interview on 14 April 1998, walk by foot from Kuala Tembeling to Kuala Berang took 1 day and 1 night. Azman married to Jendis who is a daughter of Batin Jali bin Pin (converted to Islam) which is now lives in Sungai Retang, Tembeling. Azman also mentioned that travel from his village to the cave at Kota Gelanggi area took 3½ hours without the children accompanying and 8 hours when accompanied.

From the typology of artifacts of the Gua Angin, it can be concluded that this site was occupied by prehistoric people until the metal age era.

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Notes

- ¹ Evans, I.H.N., "Cave dwellings in Pahang." *Journal of the Federated Malay States Museums*, 1920, 9(1), p. 37-52.
- ² Peacock, B.A.V. & F.L. Dunn., "Recent archaeological discoveries in Malaysia." *Journal of the Malaysian Branch of the Royal Asiatic Society*, 1968, 41(1), p. 171-179. Peacock, B.A.V., "Early cultural development in South-East Asia with special reference to the Malay Peninsular." *Archaeology and Physical Anthropology in Oceania*, 1971, Vol. 6. Dunn, F.L., "Cultural evolution in the late Pleistocene and Holocene of Southeast Asia." *American Anthropologist*, 1970, Vol. 72.
- ³ Ahmad Hakimi Khairuddin, *Penyelidikan Arkeologi Terkini di Pahang*, Nik Hassan Shuhaimi Nik Abd. Rahman (et. al.).

Pembangunan Arkeologi Pelancongan Negeri Pahang. Pekan: Lembaga Muzium Negeri Pahang, 1997, p. 51-60.

- 4 Ibid.
- 5 Adi Haji Taha, "Penyelidikan arkeologi Kota Balai, Jerantut," Pahang, *Jurnal Arkeologi Malaysia*, Vol. 1, 1988, p. 1-11.
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- 8 Mohd. Kamaruzaman A. Rahman, "The excavation of Taat Hill 2, Upper Terengganu, Terengganu." In: M.J. Klokke & T. de Bruijn (eds.), *Southeast Asian Archaeology 1996*, University of Hull: Centre for South-East Asian Studies, 1998, p. 41-46.
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- 10 Adi Haji Taha, "Recent archaeological discoveries in Peninsular Malaysia." *Journal of the Malaysian Branch of the Royal Asiatic Society*, 1983. 56(1), 57-58. See also Adi Haji Taha, "Penyelidikan Arkeologi Kota Balai," p. 4. and Mohd. Kamaruzaman A. Rahman. "Hoabinhian di Pahang," In: Nik Hassan Shuhaimi Nik Abd. Rahman (et. al.). *Pembangunan arkeologi pelancongan Negeri Pahang*. Pekan: Lembaga Muzium Negeri Pahang, 1997, p. 44-50.
- 11 Sieveking, G. de G., "Recent archaeological discoveries in Malaya" (1955). *Journal of the Malaysian Branch of the Royal Asiatic Society*, 29(1): 1956, p. 207. Benjamin, G., "Ethnohistorical Perspectives on Kelantan's Prehistory," In: Nik Hassan Shuhaimi Nik Abd. Rahman (ed.), *Kelantan Zaman Awal: Kajian Arkeologi dan Sejarah di Malaysia*, Kota Bharu: Perbadanan Muzium Negeri Kelantan, 1987, p. 134-142.
- 12 Benjamin, G., "Ethnohistorical Perspectives on Kelantan's Prehistory," p. 136.

APPENDIX A

ORANG ASLI VILLAGE SETTLEMENT DATA,
JERANTUT DISTRICT, EARLY 1997

| | Mukim (Division) | No. Family | No. Population | Area (h) |
|------------|------------------------------|------------|----------------|----------|
| Semaq-beri | Paya Petai | 25 | 92 | 20.7 |
| | Paya Lintah, Pedah | 16 | 52 | 185 |
| | Sungai Kuching, Kg. Bantal | 34 | 140 | 450 |
| | Sungai Retang, Tembeling | 19 | 81 | 270 |
| | Sungai Tekal, Mid Tembeling | 31 | 120 | 270 |
| | Sungai Tiang, Mid Tembeling | 19 | 88 | 112.50 |
| | Sungai Bangkong, North Tekam | 21 | 71 | 247.50 |
| Bateq | Sungai Berjuang, Ulu Cheka | 21 | 84 | 153 |
| | Kuala Atok, Mid Tembeling | 44 | 270 | 225 |
| Jakun | Sungai Kol, Ulu Cheka | 21 | 118 | 189 |
| | Sungai Mai, Burau | 40 | 248 | 459 |
| | Sungai Kiol, Tebing Tinggi | 78 | 488 | 423 |
| | Total | 369 | 1742 | |

| No. | Groups | No. Family | No. Populations |
|-----|------------|------------|-----------------|
| 1. | Semaq-beri | 165 | 644 |
| 2. | Jakun | 139 | 854 |
| 3. | Bateq | 65 | 354 |

Source: JHEOA Jerantut
April 1998

APPENDIX 1

TRENCH 1

| No. | Artifact | Total | (%) |
|-------|--------------------------|-------|------|
| 1. | Pottery | 127 | 55.7 |
| 2. | Charcoal | 4 | 1.8 |
| 3. | <i>Costula</i> | 30 | 13.2 |
| 4. | <i>Spinoza</i> | 19 | 8.3 |
| 5. | Land Snails | 12 | 5.3 |
| 6. | Stone Tool | 1 | 0.2 |
| 7. | Lime Stone | 2 | 0.9 |
| 8. | Anvil Stone | 1 | 0.2 |
| 9. | Waste Flake | 9 | 3.9 |
| 10. | Pebble Tool | 1 | 0.2 |
| 11. | Hematite | 1 | 0.2 |
| 12. | Grinder Stone | 1 | 0.2 |
| 13. | Canine | 1 | 0.2 |
| 14. | Beak | 1 | 0.2 |
| 15. | <i>Bivalvia Unio</i> sp. | 5 | 2.2 |
| 16. | Monkey Bone | 7 | 3.1 |
| 17. | Bone | 13 | 5.7 |
| Total | | 228 | |

APPENDIX 2

TRENCH 2

| No. | Artifact | Total | (%) |
|-------|--------------------------|-------|------|
| 1. | Pottery | 83 | 19.3 |
| 2. | Bone | 97 | 22.5 |
| 3. | Teeth | 18 | 4.2 |
| 4. | <i>Costula</i> | 47 | 10.9 |
| 5. | <i>Spinoza</i> | 66 | 15.3 |
| 6. | Charcoal | 4 | 0.9 |
| 7. | Land Snail | 29 | 6.7 |
| 8. | <i>Bivalvia Unio</i> sp. | 11 | 2.6 |
| 9. | Food Remain | 31 | 7.2 |
| 10. | Flake Tool | 1 | 0.2 |
| 11. | Hematite | 15 | 3.5 |
| 12. | Pebble Tool | 11 | 2.6 |
| 13. | Shell | 2 | 0.5 |
| 14. | Anvil Stone | 1 | 0.2 |
| 15. | Resin | 1 | 0.2 |
| 16. | Truncated Tool | 2 | 0.5 |
| 17. | Grinder Tool | 1 | 0.2 |
| 18. | Flake | 1 | 0.2 |
| 19. | Stone | 1 | 0.2 |
| 20. | Fresh Water Turtle Skin | 5 | 1.7 |
| 21. | Stone Tool | 1 | 0.2 |
| Total | | 431 | |

APPENDIX 3

TRENCH 3

| No. | Artifact | Total | (%) |
|-----|--------------------------|-------|------|
| 1. | Spinoza | 921 | 45.1 |
| 2. | Bone | 279 | 13.6 |
| 3. | Pottery | 475 | 23.2 |
| 4. | Charcoal | 15 | 0.7 |
| 5. | <i>Costula</i> | 156 | 7.6 |
| 6. | Teeth | 5 | 0.2 |
| 7. | <i>Bivalvia Unio sp.</i> | 101 | 4.9 |
| 8. | Waste Flake | 32 | 1.5 |
| 9. | Hematite | 3 | 0.1 |
| 10. | Pottery Plain | 18 | 0.9 |
| 11. | Pebble Flake | 6 | 0.3 |
| 12. | Pebble Tool | 10 | 0.5 |
| 13. | Pendant | 1 | 0.04 |
| 14. | Anvil Stone | 3 | 0.1 |
| 15. | Utilizer Flake | 3 | 0.1 |
| 16. | Broken Pebble | 1 | 0.04 |
| 17. | Canine | 1 | 0.04 |
| 18. | Flake Tool | 5 | 0.2 |
| 19. | Core | 2 | 0.1 |
| 20. | Cowrie | 1 | 0.04 |
| 21. | Lime Stone | 2 | 0.1 |
| 22. | Grinder | 1 | 0.04 |
| 23. | Anvil Stone | 1 | 0.04 |
| | Total | 2042 | |

APPENDIX 4

TRENCH 4

| No. | Artifact | Total | (%) |
|-----|--------------------------|-------|------|
| 1. | Pottery | 364 | 34.4 |
| 2. | <i>Costula</i> | 340 | 32.1 |
| 3. | Bone | 241 | 22.8 |
| 4. | Waste Flake | 15 | 1.4 |
| 5. | Food remain | 39 | 3.7 |
| 6. | <i>Bivalvia Unio sp.</i> | 30 | 2.8 |
| 7. | Teeth | 9 | 0.8 |
| 8. | Charcoal | 15 | 1.4 |
| 9. | Hematite | 3 | 0.3 |
| 10. | Iron | 1 | 0.09 |
| 11. | <i>Amphideramus</i> | 1 | 0.09 |
| 12. | Flake Tool | 1 | 0.09 |
| | Total | 1059 | |

APPENDIX 5

TRENCH 5

| No. | Artifact | Total | (%) |
|-----|----------------|-------|------|
| 1. | Pottery | 62 | 29.0 |
| 2. | <i>Costula</i> | 123 | 57.5 |
| 3. | Bat bone | 6 | 2.8 |
| 4. | Flake Tool | 1 | 0.5 |
| 5. | Charcoal | 8 | 3.7 |
| 6. | Ceramic | 1 | 0.5 |
| 7. | Burn soil | 3 | 1.4 |
| 8. | Stone Tools | 3 | 1.4 |
| 9. | Bone | 6 | 2.8 |
| 10. | Pebble Tool | 1 | 0.5 |
| | Total | 214 | |

APPENDIX 6

TRENCH 6

| No. | Artifact | Total | (%) |
|-----|--------------------------|-------|------|
| 1. | Bone | 662 | 18.6 |
| 2. | Charcoal | 8 | 0.2 |
| 3. | Bead | 62 | 1.7 |
| 4. | Frost stone | 3 | 0.1 |
| 5. | Pottery | 1283 | 36.2 |
| 6. | Shell | 4 | 0.1 |
| 7. | Teeth | 23 | 0.6 |
| 8. | Bean | 2 | 0.05 |
| 9. | <i>Bivalvia Unio</i> sp. | 42 | 1.2 |
| 10. | <i>Spinoza</i> | 1239 | 34.9 |
| 11. | Porcelain | 1 | 0.02 |
| 12. | Stone Tool | 4 | 0.1 |
| 13. | Hematite | 53 | 1.5 |
| 14. | Waste Flake | 75 | 2.1 |
| 15. | Iron | 1 | 0.02 |
| 16. | Decayed wood | 1 | 0.02 |
| 17. | Stone adze | 1 | 0.02 |
| 18. | Lime Stone | 1 | 0.02 |
| 19. | Bone Stone | 2 | 0.05 |
| 20. | Broken Tool | 1 | 0.02 |
| 21. | Costula | 6 | 0.2 |
| 22. | Bifacial | 1 | 0.02 |
| 23. | Core | 2 | 0.1 |
| 24. | Pebble | 7 | 0.2 |
| 25. | Broken Pebble | 8 | 0.2 |
| 26. | Flake | 5 | 0.1 |
| 27. | Amphedramus | 2 | 0.05 |
| 28. | Stone Tool | 2 | 0.05 |
| 29. | Clay | 9 | 0.2 |
| 30. | Pig canine | 1 | 0.02 |
| 31. | Claw | 1 | 0.02 |
| 32. | Truncated Tool | 11 | 0.3 |
| 33. | Pointed Tool | 7 | 0.2 |
| 34. | Tool | 15 | 0.4 |
| 35. | Hematite Grinder | 1 | 0.02 |
| 36. | Pebble Tool | 1 | 0.02 |
| 37. | Grinder Tool | 1 | 0.02 |
| | Total | 3548 | |

APPENDIX 7

TRENCH 7

| No. | Artifact | Total | (%) |
|-----|----------------------|-------|------|
| 1. | Bivalvia Unio sp. | 29 | 2.4 |
| 2. | Bone | 433 | 35.6 |
| 3. | Pottery | 260 | 21.4 |
| 4. | Charcoal | 9 | 0.7 |
| 5. | Spinoza | 245 | 20.1 |
| 6. | Costula | 23 | 1.9 |
| 7. | Teeth | 18 | 1.5 |
| 8. | Flake | 1 | 0.08 |
| 9. | Hematite | 22 | 1.8 |
| 10. | Broken Pebble | 10 | 0.8 |
| 11. | Flake Tools | 5 | 0.4 |
| 12. | Broken Axe | 2 | 0.16 |
| 13. | Natural Stone | 1 | 0.08 |
| 14. | Stone Flake | 4 | 0.3 |
| 15. | Quartzite | 3 | 0.2 |
| 16. | Waste Flakes | 99 | 8.1 |
| 17. | Pebble Tool | 1 | 0.08 |
| 18. | Debitage | 2 | 0.2 |
| 19. | Broken Flakes | 11 | 0.9 |
| 20. | Resin | 1 | 0.08 |
| 21. | Clay | 6 | 0.4 |
| 22. | Utilized Flake Tool | 3 | 0.2 |
| 23. | Truncated Tool | 5 | 0.4 |
| 24. | Pendant | 1 | 0.08 |
| 25. | Cave stone | 1 | 0.08 |
| 26. | Scraper | 1 | 0.08 |
| 27. | Pointed Tool | 1 | 0.08 |
| 28. | Amphedemus Prekensis | 2 | 0.16 |
| 29. | Stone Tool | 2 | 0.2 |
| | Total | 1216 | |

APPENDIX 8

TRENCH 8

| No. | Artifact | Total | (%) |
|-----|--------------------------|-------|------|
| 1. | Teeth | 22 | 1.5 |
| 2. | Bone | 155 | 10.2 |
| 3. | Beak | 3 | 0.3 |
| 4. | Pottery | 762 | 50.3 |
| 5. | Iron | 4 | 0.3 |
| 6. | <i>Spinoza</i> | 426 | 28.1 |
| 7. | Charcoal | 6 | 0.4 |
| 8. | <i>Castula</i> | 8 | 0.5 |
| 9. | Stone Tool | 18 | 1.2 |
| 10. | <i>Bivalvia Unio</i> sp. | 16 | 1.1 |
| 11. | Hematite | 28 | 1.8 |
| 12. | Canine | 2 | 0.1 |
| 13. | Broken Tool | 3 | 0.3 |
| 14. | Hammer Stone | 3 | 0.3 |
| 15. | Weathered Tools | 1 | 0.06 |
| 16. | Waste Flakes | 41 | 2.7 |
| 17. | Blade | 1 | 0.06 |
| 18. | Quartzite | 1 | 0.06 |
| 19. | Stone Tool | 8 | 0.5 |
| 20. | Pebble Stone | 1 | 0.06 |
| 21. | Broken Pebble | 2 | 0.1 |
| 22. | Flakes Tool | 1 | 0.06 |
| 23. | Edge-ground stone | 1 | 0.06 |
| 24. | Pebble Tool | 1 | 0.06 |
| | Total | 1514 | |

Total Artifacts By Trench

| | |
|----------|-------|
| Trench 1 | 228 |
| Trench 2 | 431 |
| Trench 3 | 2,042 |
| Trench 4 | 1,059 |
| Trench 5 | 214 |
| Trench 6 | 3,548 |
| Trench 7 | 1,216 |
| Trench 8 | 1,514 |

| | |
|-------|--------|
| Total | 10,252 |
|-------|--------|

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