

## The Shimotsutsumi-G Site (the Paleolithic Culture)

## Report of Excavation, 1982

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(Akita City Board of Education)

The Shimotsutsumi-G Site is located in the southern suburb of Akita City, Akita Prefecture (Fig.1.). It is situated on the middle river terrace of the right bank from the Iwami River in Akita Plains where is at a height of 41.5m above sea level. The site was discovered by the Akita City Board of Education in 1982.

A total of 872 paleolithic artifacts were discovered from the Shimotsutsumi-G Site. 825 artifacts in the Late Paleolithic Period which exhibited two concentrated areas (Fig.67.) were recorded.

The stratigraphy at the site is as follows:

Stratum 1: modern cultivated layer	Stratum 2: Jomon Period layer
Stratum 3: transitional layer	Stratum 4a: yellowish brown clayey silt
Stratum 4b: dark yellowish brown clayey silt	Stratum 4c: bright brown clayey silt
Stratum 4d: bright brown clayey silt including small gravel	
Stratum 5~7: terrace gravel layer	

Paleolithic artifacts in stratum 4a and 4b are inferred *in situ*.

The assemblage consists of backed knives (N=16), trapezoid tools (N=20), blades (N=53), trapezoid flakes (N=95), side-scrapers (N=1), end-scrapers (N=1), retouched-flakes (N=11), cores (N=61), flakes (N=338), chips (N=275) and pebble tools (N=1). The total number is 872 (Table.3.). Most of lithic artifacts were made of hard siliceous shale, but pebble tool were made of quartz porphyry.

We consider that these lithic artifacts were belonged to the first half of the Upper Paleolithic Period.

663 lithic artifacts (76.0% of all lithic artifacts) were classified as 12 nodules (Table.9.), and 354 lithic artifacts (40.6% of all lithic artifacts) are refitted (Table.10-12.). We consider that some raw materials of lithic artifacts were gotten around the Shimotsutsumi-G Site.

Stone flaking technique is classified into five types (Fig.97.).

I -a and I -b types of flaking technique are so-called "Blade Technique". Core blanks of I -a type are large flake. In contrast, Core blanks of I -b type are polyhedral. These blade techniques are characterized by plane platform. Blank flakes of backed knives were made by these blade techniques. II -a, II -b and II -c type of flaking technique produced 1:1 (ratio length : width) flakes. Core blanks of II -a and II -b are large flakes. Core blanks of II -c type are polyhedral. These flaking techniques produced blank flakes of trapezoid tools and trapezoid flakes. The each flaking technique type is recognized in same refitted lithic-artifact-group.

Especially II -a type flaking technique is called "Yonegamori Technique". The technique is the first to be found at Yonegamori Site in Akita Prefecture. The explanation of Yonegamori Technique is as follows (Fig.8.):

- ① Preparing a large piece of flake which is a material for a core blank
- ② Flaking large pieces to make up the platform

③ Knapping to flake the piece consecutively to start flaking clockwise

The flakes, the ratio of 1:1, appear identical to hinge fracture. These flakes which are ventral portion of core blank have both positive and negative faces on backside. The flakes are divided into "Trapezoid Flakes" in this report. As necessary, "Trapezoid Flakes" are manufactured into trapezoid tools by retouching. These trapezoid flakes and trapezoid tools which is made by Yonegamori Technique are called "Yonegamori Type Trapezoid Tools".

According to the result of lithic use-wear analysis by Dr. Yoshitaka Kanomata, an Associate Professor of Tohoku University, backed knives were probably used as cutting or sawing toughened things. Yonegamori Type Trapezoid Tools were probably used as cutting and sawing woods, bones/antlers or dried hide. The most frequent utilized portion was the center of their right side edge and the positive face on both ventral surface and dorsal surface. Furthermore, Dr. Kanomata considers that when a man uses the Yonegamori Type Trapezoid Tool effectively, he needs to grab especially the opposite side of cutting edge naturally (AppendixNo.2 Fig.8.). In other words, morphological characteristics of Yonegamori Type Trapezoid Tools are strongly related to functional factors.

Lithic distribution at the Shimotsutsumi-G Site was composed of two lithic concentrated units (Fig.67.). The main concentrated unit is BL1 which of the diameter of lithic distribution is about 10m. Three concentrated areas of pebble and four earthen pits were discovered (Fig.69 ~ 72.). Three of the earthen pits were found under the concentrations of pebble. Pebbles were broken and became red because of fire. Lithic distributions and concentrated areas of pebble are not overlapping. Each unit of refitted lithic artifacts groups had a different distribution by driblets (Fig.83 ~ 92.). It is considered that these patterns might show an individual human behavior of production of stone tools.

Paleolithic artifact of the Shimotsutsumi-G Site is one of the representative stone tool industries of the first half of the Upper Paleolithic Period in Japan, therefore, this site is considered to be very important to study Paleolithic Period.

All data of lithic artifact and this report are openly available on the WEB site below;

[[http://www.city.akita.akita.jp/city/ed/cl/site\\_report/shimotutumiGsite\\_paleolithic/default.htm](http://www.city.akita.akita.jp/city/ed/cl/site_report/shimotutumiGsite_paleolithic/default.htm)]

## 報告書抄録

ふりがな	しもつつみじーいせき ーきゅうせつきじだいへんー							
書名	下堤G遺跡 ー旧石器時代編ー							
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所収遺跡名	所在地	市町村	遺跡番号				m <sup>2</sup>	原因
しもつつみじーいせき 下堤G遺跡	あきたし ごしょの 秋田市御所野 じぞうでん 地蔵田一丁目地内 旧地名: あきたし よつごや こあじ 秋田市四ツ小屋小阿地 あざしもつつみ 字下堤	05201	299	39度 39分 46秒	140度 9分 41秒	19820802 ～ 19821105	195	秋田新都市開発整備事業に伴う発掘調査
所収遺跡名	種別	主な時代	主な遺構	主な遺物		特記事項		
下堤G遺跡	遺物包含地	旧石器時代	礫群3箇所 土坑4基	旧石器 872点 (ナイフ形石器 16点、 台形様石器 20点、石 刃 53点、台形剥片 95 点、サイドスクレイパー 1点、エンドスクレイ パー 1点、二次加工 のある剥片 11点、石 核 61点、剥片 338点、 チップ 275点、礫器 1点)		後期旧石器時代前半期の石器群。礫群3箇所、土坑4基検出		
要約	<p>遺跡は、秋田平野南部の御所野台地に所在している。御所野台地は雄物川の河岸段丘であり、地形区分上M2H面（中位段丘面相当）に立地している。旧石器資料は、第IV a・IV b層を中心として、ナイフ形石器・台形様石器・石刃・台形剥片・サイドスクレイパー・エンドスクレイパー・二次加工のある剥片・石核・礫器・剥片・チップが出土し、石器群の特徴から後期旧石器時代前半期後半段階のものと考えられる。</p> <p>また、礫群3箇所、土坑4基が検出された。土坑3基は礫群下部からの検出である。礫群を構成する礫は火熱の影響を受けていると考えられる。</p> <p>主要なツール類は、ナイフ形石器と台形様石器・台形剥片であり、それぞれの石器素材は石刃技法と所謂「米ヶ森技法」により生産されている。</p> <p>本遺跡では、所謂「米ヶ森技法」を示す良好な接合資料が得られている。また、102点の石器が接合する大きな接合資料もあり、これらは原礫を大きく分割した後に、厚手の剥片を剥離し、それを素材として、石刃技法や米ヶ森技法の各剥片生産技術を使い分けていることが確認できる。</p>							

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－ 旧石器時代編 －

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