第４章

総　　括

総　　括

木下尚子　　KINOSHITA Naoko
熊本大学　　University of Kumamoto

１．共同研究の実施

本共同研究は、全長1200kmにわたって連なるの亜熱帯の島嶼、琉球列島にどのように国家が形成されてきたのかを、生業と交易の両面から追究しようとした試みである。私たちは、沖縄県伊江島ナガラ原東貝塚の発掘調査を実施し、合わせて関連資料を収集する方法でこの問題を追究した。本研究は、実質的に1995～1997年の奄美大島用・見崎遺跡の発掘調査、1998年のナガラ原東貝塚第一次調査を含む一連の調査・研究の延長上にあるため、報告書ではこれらも合わせて検討した。

本研究において対象としたのは６～７世紀であり、また二つの発掘調査地はこれに対応する時期の遺跡であるが、各分担者はそれぞれに琉球列島全域を通史的に捉える視点をもち、その中で生業や交易、国家形成を論じている。報告書のタイトルに『先史琉球の生業と交易』を付した所以である。

共同研究を進めるにあたって留意したのは、専門分野を異にする７名（動物学、人類学、考古学）が調査現場を共有しつつ、いかに効果的に共同研究の成果をあげられるかである。発掘現場においては層位の共通認識や問題の共有を心がけ、自然遺物用分析試料は各分担者が現場で直接採取することとし、意見交換の結果を調査方法に反映するよう努めた。本書第１・２章において言及された、ヤマトミズン集中層の検出による季節性の指摘、ミドリアオリによる廃棄単位の抽出、植物遺体検出の成功、シャコガイの合弁状況から貝塚の形成過程を追う作業等は、それぞれ現場における判断や発想から導かれている。現場での採取に限らず、自然遺物の分析は研究室での資料抽出、同定、統計処理に膨大な時間と労力を要する。ここに収録された成果は、こうした作業の集積と、各分担者の「人と環境の関係」復元にむけた実践的方法論に裏打ちされている。

生業と交易から国家形成を探ろうというテーマに関しては、研究会を通して全員で議論してきたが、報告書では、生業から国家形成を論じるものと、交易から論じるものの二つに分けた。生業と国家形成については、農耕の始まりを甲元眞之が、植物遺体・脊椎動物遺体・貝類遺体からみた奄美・沖縄の環境と生活復元を高宮広土、樋泉岳二、黒住耐二が、居住形態の変遷を杉井健がそれぞれ論じ、交易と国家形成については、貝交易との関係を木下が、銭貨の使用状況を小畑弘己が受け持った。後者に収録した「滑石製石鍋の基礎的研究」は、熊本大学修士課程在籍（当時）の新里亮人にとくに執筆を依頼したものである。議論の前提となる用・見崎遺跡とナガラ原東貝塚の発掘調査内容については木下が概要を示し、６～７世紀の奄美と沖縄諸島について論述した。以下各論考を要約し、総括を行なう。

２．成果の概要

「第１章　遺跡の概要と６～７世紀の琉球列島」において木下は、用見崎遺跡とナガラ原東貝塚の発掘調査の成果から、前者が海への水路に面してヤコウガイ貝殻を意図的に集中させた場所であり、中国にヤコウガイを提供した場所であった可能性の高いこと、後者が比較的短い時間に形成された食料残滓廃棄場所であり、古墳時代の九州にゴホウラを提供し、種子島にゴホウラ・イモガイを提供していた場所であった可能性の高いことを述べた。２遺跡の時期については、遺構の出土状況、土器と

貝符の型式学的考察に基づき、用見崎遺跡を7世紀前後、ナガラ原東貝塚を6世紀前後の遺跡とし、それぞれの調査成果を総合して、６・７世紀の奄美と沖縄諸島を以下のようにまとめた。６世紀には、琉球列島と大和とを結ぶ貝交易が奄美人の関与によって実現していた可能性が高く、南九州との繋がりの中で奄美諸島に兼久式土器（平底土器）が誕生する。これに対し南九州の影響から遠い沖縄諸島では在地土器（尖底土器）の伝統が長く残存する。こうした時期、伊江島（ナガラ原東貝塚）にイネ、コムギが登場するのである。植物種子、陸産貝類の分析結果に基づけば、これらは伊江島以外から齎された可能性が高く、また６世紀前後の伊江島の対外交流状況を勘案すれば、これらが貝交易の交換物として齎された可能性を否定することはできない。しかしこれらがどこに起源する穀物であったかは、九州とする可能性のほかに、他の沖縄諸島または奄美諸島であった可能性も否定できず、現時点でこれ以上の議論はむずかしい。７世紀は先史時代的な貝交易が終結する時期であり、その後半には、大和と南島の間に、「律令国家対化外（けがい）」という大和による一方的な政治関係の生まれる時期であり、また南島と中国の間にヤコウガイ需給関係の生じる時期でもある。この時期、種子島、屋久島、吐噶喇列島の人々が宮都に出向き、都からは政治的使命を帯びた役人が南下するようになる。このような中、7世紀末には奄美人が大和に北上し、さらに8世紀には沖縄諸島の情報が都に伝わる。新たに生じた北から南に向かう政治的動きの中で、奄美の兼久式土器の影響が沖縄諸島に達して、７世紀後半にアカジャンガー式土器を生むとみられる。６世紀から７世紀において、南島と大和の関わりは、先史時代の「相互に経済的な関係」から、古代の「一方的な政治関係」に変化し、奄美と沖縄諸島の文化的相違は、南九州との距離に応じてより明瞭になったことを述べた。

以下、「第２章　生業をめぐる諸問題」所収論考の概要を記す。

甲元は「琉球列島の農耕のはじまり」において、考古学で農耕を論じるには、栽培過程における具体的行為と地上の痕跡との相関関係を検証すること、遺構内の種子の分析、種子自体の年代測定が重要だと説く。甲元はグスク時代以前において穀物を伴った那覇市那崎原、久米島ヤジャーガマ、伊江島ナガラ原東を取上げて検討し、グスク時代以前に農耕が存在していたのは確実だとし、穀物が炭化していることの意味を、民俗例や縄文時代の堅果類の処理例を引いて考察して、これが火を使用した何らかの処理方法に関係するのではないかと指摘した。さらに最近の後期土器編年案を参考に、ナガラ原東の穀物共伴層の土器底部形状、突帯の特徴、調整の特徴を検討し、これらがアカジャンガー式というより、次のフェンサ下層式に近い時期のものであることを説き、アカジャンガー式と併行するとされる奄美の兼久式との比較から、その考えの妥当性を示した。さらにナガラ原東におけるC^{14}年代の層位的逆転を根拠に、ナガラ原東の層位は撹乱またはその認定が誤っており、このままでは使用できないとして、^{14}C年代値を共伴する尖底土器の年代とみなし、アカジャンガー式をここから分離した。すなわちナガラ原東の穀物は、尖底土器とアカジャンガー式土器という新旧２型式の撹乱層で出土したもので、本来は後者に伴うと解釈したのである。甲元はナガラ原東の穀物の時期を8世紀以降に比定し、那崎原やヤジャーガマと同列の資料として、後２者が炭化藻や焦土層に伴うこと、３例ともに穎や芒を伴うことから、これらが在地における脱穀過程で遺された資料であることを主張した。

高宮は、琉球列島史を「島」の視点で人類学的に見ており、狩猟採集経済から農耕経済への変化のタイミングを理解すること、農耕が国家形成にどう結びつくのかを理解することが重要であると説く。高宮は「植物遺体からみた奄美・沖縄の農耕のはじまり」において、沖縄諸島の農耕の起源に関してこれまでに提出された７仮説を紹介し、いずれも間接的あるいは状況証拠に基づいたものであったことを指摘。自らフローテーションを実施して植物種子を検出した用見崎、ナガラ原東、高知口原、那崎原の成果をもとに、栽培植物利用有無の２パターンを設定し、沖縄貝塚時代後期を３期にわけて、

それぞれを以下のように組みたてた。すなわち前期（紀元前１世紀から４－５世紀）には、高知口原のように堅果類が主要な植物食であった可能性が高く、中期（５－６世紀から８世紀）には用見崎のように栽培植物を利用しないパターンと、ナガラ原東のように栽培植物を利用するパターンがあり、後期（８－９世紀から10-12世紀）には那崎原のように明らかに農耕を伴うパターンが成立するとみる。またグスク時代以前に琉球列島への人間の移住の可能性を指摘する最近の形質人類学および言語学の研究成果から、10-12世紀がこれに対応するのではないかと指摘する。ナガラ原東のイネ・コムギについては、交易による入手の他に、穀物をもつ人々の季節的遊動による可能性を新たに示す。最後に、農耕はそれ自体が社会を原初国家へ導く役割を果たすものではないので、今後は那崎原段階以後についての人口動態や農耕社会成立についての追跡が必要であることを述べた。

樋泉は「脊椎動物遺体群からみた奄美・沖縄の環境と生活」において、用見崎とナガラ原東の分析から３パターンの漁労方法の存在を導き、さらに沖縄貝塚時代からグスク時代に至る琉球列島全体の脊椎動物資源利用の特徴を概括する。その前提としてこうした分析にはデータ表示と定量化方法の統一が不可欠であることを強調する。３パターンの漁労方法とは、①サンゴ礁の多様な小魚を一括漁獲する選択性の低い漁法、②大型のブダイ等に狙いを定めた選択性の高い漁法、③沿岸浅瀬における回遊性小型魚の季節的漁である。この漁法3パターンを、従来提起されていた沿岸環境類型の「ヒシ型」、「イノー型」と組み合わせることにより、漁労活動における選択性を導きだすことを可能にした。すなわち用・見崎人の①パターンへの偏向性、ナガラ原東人の秋から春における集中的漁業活動の可能性が導かれたのである。また貝錘は①に関わる道具であった可能性の高いことを指摘する。さらに脊椎動物遺体から琉球の先史時代を通史的に概観し、以下の諸点を論述する。・貝塚時代の奄美・沖縄諸島は、現在の山原地域にみられるような照葉樹林に覆われていたが、グスク時代以後の森林伐採によって森林が縮小したと考えられる。・貝塚時代の沿岸環境は、現在と大差なかったと推定できる。・グスク時代には「海離れ」がおこり、伝統的漁労形態が急速に変質・衰退していったらしい。・貝塚時代の脊椎動物資源利用は、前期から後期まで漁労とイノシシ漁を中心とするパターンが継続する。・家畜利用については、貝塚時代後期後半までに大陸よりブタがもたらされた可能性が高い。

黒住は、「貝類遺体からみた奄美・沖縄の自然環境と生活」において、二つの遺跡の分析から導かれた成果、ならびに琉球列島の貝塚時代からグスク時代への変化を論述している。黒住は陸産微小貝の分析から、用・見崎遺跡周辺が当時開けた環境であったこと、ナガラ原東貝塚付近では海岸の林の開け方が時期ごとに変化していたことを述べ、陸産微小貝が環境の細かい時期変化を示す有効な指標たり得ること、花粉やプラントオパールでは成果の出にくい砂丘において陸産貝類が古環境復元に最も有効であることを指摘する。またマイマイやマルタニシが、それぞれ畑地、水田の存在を示す有効な指標であるとみられること、これらに照らしてもナガラ原東貝塚付近に畑地も水田もあった可能性が低いことを論じ、６～７世紀に生産経済に移る必然性を微小貝類は示していないと結論した。一方ナガラ原東におけるミドリアオリの集中投棄から、遺構面に台風などによる撹乱はなかったことを指摘している。さらに両遺跡において潮間帯岩礁の中・小型二枚貝やアマオブネ類が多いことに注目し、こうした小型貝類の利用が貝塚時代の遺跡には少なからず認められ、その破損の有無からこれらが肉の摂取であったのか、ダシとしての利用あるいは塩分摂取、さらには真珠の採取を意図したものなのか遺跡ごとの検討が必要だと述べる。グスク時代に貝類利用が、サンゴ礁の大型貝類から内湾・干潟の小型貝類に変化したという従来の指摘に対しては、その変化の要因が自然環境の変化より、社会的な要因によるのではないかという考えを示した。

杉井は「沖縄諸島における居住形態の変遷とその特質」において、琉球列島を「前方後円墳分布圏

の周辺地域」と捉え、藤本強による南北比較の視点――北海道では生業の基本を変えず土器や住居形態に大和的なものをとり入れ、統一的政治組織を形成しなかったのに対し、琉球列島では基本的生業を農耕に変化させ統一王朝をつくった――を念頭におき、住居と火処に注目しつつ居住形態の変遷を追っている。杉井は沖縄諸島、先島諸島の新石器時代～近世の住居193例、屋外炉40例を対象に分析し、奄美諸島と比較して、以下のように述べる。新石器時代において竪穴式住居が居住形態の主流であるという点で奄美諸島と沖縄諸島の居住形態には大差を見出せないが、竪穴式住居の認められない先島諸島とは明確に異なっている。竪穴式住居の有無に注目すると、沖縄諸島における住居形態の変遷中もっとも大きな画期は、竪穴式住居を主体とする貝塚時代後期と、竪穴式住居が消えて規則的な柱穴配置の掘立柱建物が主流になるグスク時代の間に認められる。また火処が近世以降まで一貫して炉であること、天井のない焚口をもつ竈が近世に成立するが、これも炉からの変遷の中で捉えられること、喜界島ハンタ遺跡で検出されたグスク時代以降の竈状施設が、九州本島との関係を探る糸口になることを指摘する。さらに火処と密接に関る土器の底部形状に言及、奄美諸島の甕が南九州の影響を受けたのに対し、沖縄諸島ではその影響がなく、生活様式の独自性が強固に維持されたと指摘して、非ヤマト的地域における国家の形成について比較研究の展望を述べている。

以下に「第３章　交易をめぐる諸問題」所収の３論文を要約しよう。

木下は「貝交易と国家形成」において、グスク時代を特徴づける琉球圏がどのように形成されたのかを、９世紀から13世紀の貝交易の動向を追うことで論究し、琉球列島が国家を形成するに至るストーリーを探ろうとしている。貝交易への注目は1997年の用見崎遺跡の調査において、多量のヤコウガイとともに開元通宝が出土したことに発している。木下は７世紀以降中国唐王室で需要の高まった螺鈿の素材であるヤコウガイを、9世紀までは琉球列島が提供していたのではないかとし、2000年にこれに関する論文をまとめている。今回の論考はその続編で、螺鈿工芸史研究の成果――９～10世紀に大和で唐螺鈿が継承され、11世紀に発展し、12世紀に成熟期を迎え、13世紀に貝素材がヤコウガイからアワビなどに変化する――を立論の前提としている。主旨は以下の通り。９～11世紀、大和における螺鈿工芸の発展とその宋や新羅への貿易品としての需要の高まりが、博多に根拠をおく商人の注意を琉球列島に向けさせ、ヤコウガイ入手を目的とした積極的な南下を促した。11世紀に開業した徳之島の須恵器窯は、こうした博多の商人が深くかかわって成立させたヤコウガイの交換品生産を目的とした窯であったと想定し、須恵器や石鍋、陶磁器を携えた商人がヤコウガイを求めて先島諸島にまで至ったので、交易文物が琉球列島全域にゆきわたり、その結果共通した畑作中心の農耕が列島に展開し、社会の階層化が進んだとみる。ヤコウガイ交易収束後の13世紀後半、琉球は自力で対東アジア交易を開始するに至った、というものである。

小畑は「出土銭貨からみた琉球列島と交易」において、グスク時代前夜から琉球王国期に至る11世紀から16世紀を対象に、出土銭貨の動態を探り、銭貨の社会的機能と貿易の実態を追究している。小畑は琉球列島内出土銭貨6609枚を対象に検討し、銭貨使用の画期を12世紀半ば、14世紀半ばに見出して、琉球列島の銭貨の動態を以下のようにまとめる：

Ⅰ期（11世紀～12世紀前半）：銭貨の不使用もしくは低調期（首長層による私貿易の開始）

Ⅱ期（12世紀後半～14世紀前半）：対外貨幣としての銭貨の登場期（按司による私貿易の時代）

Ⅲ期（14世紀後半～16世紀）：銭貨使用の拡大期（進貢貿易による中継交易の時代）

小畑は、律令国家の支払い手段としての古代銭と対外貿易決済用の貨幣を、琉球列島においても明快に区別し、11世紀の銭貨不使用期をはさんで後者が登場する過程を、グスク時代の開始と併行して描き出した。また全国的な銭貨流通と貿易陶磁の流通量から、琉球列島において銭貨が増加した時期を

13世紀後半に求められるとし、その後の銭貨流通の様子を文献で示している。琉球の銭使いが博多における日宋貿易の状況と極めて似ていることを確認し、貿易のさかんな地域に大型銭が流通したことを、博多、琉球、対馬において検証したことは重要である。12世紀以降の東アジア貿易圏においては、中国専制国家の国家的信用とは無関係に、市場原理に基づく銭体系が確立して、琉球の貨幣もこうした中で登場したものであることを指摘した。

新里は「滑石製石鍋の基礎的研究」において、九州・沖縄地方における出土地888箇所を集成し、出土一覧表と詳細な分布図を示して、今後の石鍋研究に新たな基礎資料を提供した。新里は、石鍋が11世紀から13世紀の琉球全域で消費されている事実、また石鍋の登場によって琉球列島に石鍋模倣土器が登場したこと、この時期を境に沖縄諸島では貝塚時代が、先島諸島では無土器時代がそれぞれ終焉し、両地域に農耕社が成立することに注目し、石鍋が時代変化の指標として重要な意味をもつことを強調する。また石鍋を古手の把手付石鍋と後出の鍔付石鍋に大別し、それぞれの分布を比較して、琉球列島の石鍋は、博多等北部九州からの直接搬入された可能性が高いこと、沖縄諸島における石鍋模倣土器は、成立から終焉に至るまで古手の把手付石鍋を模倣し、鍔付石鍋の影響を受けていないことを指摘する。後者にみられる選択性が何に起因しているのかについて、「釜が竈に密接に結びつくものであるとされるに対し、鍋は囲炉裏（炉）に結びつく器」という朝岡康二の指摘を引いて、その原因が火処の形態と関連することを予測している。

3．共同研究を終えて

一連の共同研究を通して、植物遺体、貝類遺体、脊椎動物遺体によるそれぞれの分析結果が、環境復元や生業復元に一定程度成功したこと、この成果に考古学班が刺激されて視点を広げ、発掘方法を工夫するなど学問的進展の認められた点は成果であったと思う。また年ごとの研究会では、分野を越えて互いに得るものがあった。こうした動物学、人類学と考古学の共同研究が、調査や議論に稔りをもたらした点は、愉快な体験であった。

発掘調査を継続中のナガラ原東貝塚については、時期比定をめぐって６世紀前後とする考えと８世紀以降とする考えが出されたが、これは一方で、貝塚時代後期編年の問題点をそのまま反映している。編年に関しては、沖縄後期土器研究会諸氏に教示を乞いながら問題点を整理し、引き続き広く論議していきたいと思う。また、甲元が説くように、種子そのものの年代測定も今後不可欠である。

ナガラ原東貝塚で炭化イネ、ムギの検出に成功したことは嬉しいトピックであったが、このことと国家形成を論じることの間には、高宮広土が指摘するように、まだ相当の距離がある。一方交易については国家形成との繋がりがよく、銭貨、滑石製石鍋、貝交易ともに関連した論を展開できたが、時期が９世紀以降に集中し、生業から導いた議論との間に隙間ができてしまった。琉球の国家形成が農耕と交易の両輪によって実現したとしながら、両者をじゅうぶんかみあわせられなかった責は木下にある。また土壌サンプルの分析に未完了部分のある点や、調査方法などに今後改善すべきところも残っている。発掘調査は１回限りの実験であり破壊でもあることを肝に銘じて、発掘と報告書作成には最善を尽くしたい、と自戒を込めて思う。

報告書については、自然科学分野はもちろん、考古学分野においても資料性の高いものになったことを喜んでいる。それぞれの論考には新しく出された重要な指摘が少なくない。

共同研究者各位ならびに新里亮人氏の協力に深く感謝する。

2002年3月

木下 尚子

CONCLUSIONS

1. Aims and Objectives of the Project

The aim of this project was to investigate the process of state formation in the Ryukyu Islands, a 1200km-long sub-tropical island chain, from the perspective of subsistence and exchange. Research was based on the excavation of the Nagarabaru Higashi site on Iejima Island, Okinawa Prefecture, and on the collection and study of related materials. Preparations for this project can be said to have begun with the 1995-97 excavations at the Yomisaki site on Amami Oshima and the first season of work at Nagabaru Higashi in 1998. Since the present project is an extension of these excavations, this report also summarizes the results of that earlier work.

The main focus of this project was the 6th and 7th centuries AD and the two sites that were dug belong to this time period. Project members, however, conducted their own research on subsistence, exchange and state formation across a broader time frame and for this reason the present volume was given the title "Subsistence and Exchange in the Prehistoric Ryukyus".

Serious consideration was given to how to get the best results from the multi-disciplinary nature of the project and cooperative research was conducted by seven scholars with different specializations in zoology, anthropology and archaeology. In the field we attempted to develop a shared understanding of the site stratigraphy and research problems. Samples for environmental and biological analysis were collected by each specialist and the ready exchange of views on sampling was reflected in the excavation methods. As discussed in Chapters 1 and 2 of this volume, the use of the sardine *Sardinella clupeoides* as a seasonal indicator, the deduction of abandoned features from the presence of *Pinctada panasesae*, the success in the discovery of plant remains, and the use of joined *Tridacna* clams to understand the formation process of the shell midden all relied on approaches and ideas developed in the field. After collection, the environmental samples required a great deal of time and labour for extraction, identification and quantitative analysis. The conclusions presented here are based on the accumulated results of these analyses and the practical methods devised by each project member to reconstruct the relationships between humans and the environment.

All members of the project have looked at the process of state formation from the perspective of both subsistence and exchange, but in this report these two approaches are separated. The relationship between subsistence and state formation is investigated by Masayuki Komoto is his chapter on the beginnings of agriculture, and in chapters by Hiroto Takamiya, Takeji Toizumi and Taiji Kurozumi that use plant, vertebrate and shell remains to reconstruct the environment and lifestyles in Amami and Okinawa. Takeshi Sugii further develops this theme by looking at changes in the design of dwellings. The role of exchange in state formation is discussed by Kinoshita in her

chapter on the shell trade, and by Hiroki Obata in his analysis of the use of coins. The final chapter, titled 'A Basic Study of Talc Bowls', was specially commissioned from Akito Shinzato, a PhD candidate at Kumamoto University. Kinoshita also provides an overview of the excavations at Yomisaki and Nagarabaru Higashi, as well as a discussion of the 6-7th centuries in Amami and Okinawa. A summary of each chapter is presented here, followed by some brief final conclusions.

2. Summary of the Project Results

In Part 1, 'A Summary of the Sites and the Ryukyu Islands in the 6-7th Centuries', Kinoshita argues that turban shells (*Turbo marmoratus*) were intentionally gathered at Yomisaki, a site that was located facing maritime transportation routes. She also proposes that Nagarabaru Higashi was formed over a relatively short period of time from the food remains of people who were almost certainly involved in supplying *Tricornis latissimus* to Kofun Kyushu and both *Tricornis* and the cone shell *Lithoconus littertus* to Tanegashima. From the excavated features and from typological studies of the pottery and shell pendants, Yomisaki was dated to about the 6th century and Nagarabaru Higashi to about the 7th century. The results of these excavations can be used to suggest the following conclusions about Amami and Okinawa in these two centuries. In the 6th century, the shell trade between Yamato and the Ryukyus was probably achieved through the participation of the Amami islanders. Flat-bottomed Kaneku pottery developed in Amami through this contact with southern Kyushu. In Okinawa, in contrast, there was still little influence from Kyushu and the local, pointed-base pottery continued for a long time. At this stage, rice and barley appear on Iejima Island at Nagarabaru Higashi. From the analyses of plant remains and land snails, it seems likely that these plants were brought from outside Iejima and from a consideration of the external contacts of the island in the 6th century, we cannot ignore the possibility that these crops arrived as part of the shell trade. It is not known, however, from where these crops originated; as well as Kyushu, it is possible that they may have derived from another island in Okinawa or Amami. At present, therefore, further speculation on this point is difficult.

The 7th century saw the conclusion of the prehistoric shell trade and in the second half of that century the Ritsuryo state developed a unilateral policy of regarding the 'South Islands' (*Nanto*) as beyond the pale of 'civilized' settlement. During this period, people from Tanegashima, Yakushima and the Tokara Islands went to the capital, and officials assigned with government duties made their way south. In this way, people from Amami traveled north to Yamato at the end of the 7th century, and in the 8th century information about Okinawa reached the capital. With these new political movements from north to south, Amami Kaneku pottery began to influence the Okinawa Islands and Akajanga pottery developed there in the second half of the 7th century. From the 6th to the 7th centuries, the relationship between the Ryukyus and Yamato changed from the mutual economic interaction of the prehistoric period to a pattern based on the political dominance of the archaic Ritsuryo state. Cultural differences between the Amami and Okinawan

Islands became more pronounced due to their respective proximity to southern Kyushu.

Part 2 of the report begins with a chapter by Masayuki Komoto titled 'The Beginning of Agriculture in the Ryukyu Islands'. Komoto argues that as well as the direct dating of seeds and the analysis of plant remains, an archaeological approach to agriculture requires an investigation of the relationships between archaeological features and the actual practices involved in plant cultivation. Komoto discusses pre-Gusuku sites that have produced crops—Nazakibaru in Naha, Yajagama on Kumejima and Nagarabaru Higashi on Iejima—and argues that agriculture was definitely established by that time. From comparisons with ethnographic examples and from what is known about nut processing methods in the Jomon period, he also suggests that the carbonized condition of these Okinawan remains indicates the use of specific processing methods. Komoto goes on to compare the pottery associated with the crop remains at Nagarabaru Higashi with recent ceramic chronologies of the Late Shellmound period. From an analysis of base form, appliqué decoration and finishing techniques, Komoto argues that rather than Akajanga, the Nagarabaru Higashi pottery is closer to the following Lower Fensa type. A comparison with the Amami Kaneku pottery that is contemporary with Akajanga further supports this conclusion. Based on the stratigraphic inversion of radiocarbon dates at Nagarabaru Higashi, Komoto suggests that there has either been disturbance at the site or else our understanding of the stratigraphy is incorrect. He proposes that the radiocarbon dates are associated with the pointed base ceramics and thus separate from the Akajanga pottery. Furthermore, because the Nagarabaru Higashi crop remains come from a disturbed layer containing both the earlier pointed base pottery and the later Akajanga ware, Komoto argues that the crops were originally associated with the latter pottery. This would mean that the Nagarabaru Higashi crop remains date from the 8th century or later and are therefore of approximately the same age as the materials from Nazakibaru and Yajagama. From the fact that the crop remains are associated with carbonized straw and burnt earth at these last two sites, and from the presence of glumes and awns at all three localities, Komoto emphasizes that these are all examples showing traces of local threshing techniques.

Hiroto Takamiya approaches the history of the Ryukyu Islands from the perspective of 'island anthropology', arguing for the importance of the timing of the switch from a hunter-gathering to an agricultural economy and for an understanding of the role of farming in state formation. In his chapter 'Plant Remains and the Beginnings of Agriculture in Amami and Okinawa', Takamiya lists seven theories that have so far been used to explain the origins of farming in Okinawa. He notes that all of these theories have so far been based on indirect or circumstantial evidence. From his own flotation analysis of plant remains at Yomisaki, Nagarabaru Higashi, Takachi-kuchibaru and Nazakibaru, Takamiya proposes two patterns of cultivated plant utilization which developed in three stages during the Late Shellmound period. In the Early phase (1st century BC to 4-5th centuries AD), there is a strong possibility that nuts such as those found at Takachi-kuchibaru were the major plant food. In the Middle phase (5-6th to 8th centuries), there are sites such as Yomisaki

where cultivated plants were not utilized and sites such as Nagarabaru Higashi where they were. Finally, in the Late phase (8-9th to 10-12th centuries), a clear agricultural pattern such as that at Nazakibaru was established. Takamiya also considers recent proposals from research in biological anthropology and linguistics that suggest immigration into the Ryukyus before the Gusuku period, arguing that such immigration may have occurred in the 10-12th centuries. He further makes the new proposal that, as well as through exchange, the rice and barley from Nagarabaru Higashi may have been obtained through the seasonal movement of people with crops. Lastly, Takamiya notes that farming itself does lead a society towards the ancient state and thus in the future more work is needed on demographic changes and the establishment of agricultural society after the time of Nazakibaru.

In his chapter 'Vertebrate Faunal Assemblages and Environment and Lifestyles in Amami and Okinawa', Takeji Toizumi proposes the presence of three patterns of fishing based on his analysis of the remains from Yomisaki and Nagarabaru Higashi. He also summarizes the main characteristics of vertebrate resource use in the Ryukyus from the Shellmound to the Gusuku periods. Toizumi emphasizes that standardized methods of data presentation and quantification are essential for such an analysis. The three fishing patterns he identifies are: (1) the capture of many small coral reef fishes with minimal selection; (2) deliberate selection of parrot fish (*Scaridae*) and other large species; and (3) seasonal fishing of migratory small fish in coastal shallows. When used with existing models of the coastal environment, these three patterns may be able to help us understand optimal foraging patterns in fishing behaviour. In particular, Toizumi uses Iha's Okinawan model of 'Crest' (*Hishi*) and 'Moat' (*Inoo*) type fishing where the former concentrates on reef species such as *Scaridae* and the latter utilizes *Lethrinidae* and other species from the reef shallows [Sugako Iha, 'Okinawa Honto senshi jidai kara mita gyoro katsudo ni tsuite' (Fishing activities from the perspective of the prehistory of Okinawa Island), *Busshitsu Bunka* 38, 1982]. The people at Yomisaki seemed to have tended towards Toizumi's pattern (1), whereas those at Nagarabaru Higashi probably concentrated on autumn to spring fishing. Toizumi suggests that shell net sinkers may have been particularly associated with pattern (1). Discussing the prehistory of the Ryukyus from the perspective of vertebrate faunal remains, Toizumi also notes the following points.

(i) In the Shellmound period, the Amami and Okinawa Islands were covered by the type of broadleaf forest now found in upland areas, but these forests were much reduced by land clearance from the Gusuku period onwards.

(ii) The coastal environment of the Shellmound period was little different from that of today.

(iii) In the Gusuku period there was a move 'away from the sea', with a sudden change and decline in traditional fishing practices.

(iv) The use of vertebrate faunal resources from the Early to the Late Shellmound periods was marked by a pattern that concentrated on fishing and the hunting of wild boar.

(v) As regards the use of domesticated animals, there is a strong possibility that pigs were brought from the Asian continent by the second half of the Late Shellmound period.

In his chapter 'Molluscan Remains and the Natural Environment and Lifestyles in Amami and Okinawa', Taiji Kurozumi presents the results of his analysis of the molluscs from two sites and discusses the transition from the Shellmound to the Gusuku periods. From his analysis of land molluscs, Kurozumi has reconstructed an open environment around Yomisaki and argued for periodic changes in the extent of coastal woodland around Nagarabaru Higashi. Since land molluscs are very sensitive to changes in microclimate, they are the most useful environmental indicators in sand dunes sites where pollen and phytolith preservation is poor. The absence of land snails and *Cypangopaludina chinensis* suggests that it is unlikely that there were, respectively, dry fields or wet paddies around Nagarabaru Higashi and Kurozumi concludes that in the 6-7th centuries there was not yet any necessity to develop a food producing economy. Also at Nagarabaru Higashi, concentrations of *Pinctada panasesae* indicate that the surfaces of excavated features were not disturbed by typhoons or other similar events. Kurozumi notes that many medium- and small-sized bivalves and *Neritidae* from inter-tidal rocks were found at both Yomisaki and Nagarabaru Higashi. The use of such small shells was not uncommon in the Shellmound period, and Kuozumi writes that further research on breakage patterns is needed to determine if they were used for their meat, for soup, for salt, or for pearls. Kurozumi concludes that the change in mollusc utilization in the Gusuku period from large coral reef shells to small inshore and tidal shells was probably caused more by social factors rather than environmental change.

In 'Changes and Special Features in House Form in the Okinawa Islands', Takeshi Sugii discusses changes in dwellings and hearths. Viewing the Ryukyus as a periphery of the keyhole tomb zone, Sugii discusses Fujimoto's model whereby Hokkaido adopted ceramics and house forms from Yamato without political unification or changes in basic subsistence, whereas the Ryukyus developed farming and a unified kingdom [Tsuyoshi Fujimoto, *Mo Futatsu no Nihon Bunka* (Two Other Japanese Cultures), Tokyo University Press, 1988]. Sugii analyzes 193 houses and 40 outside hearths from the Neolithic to Early Modern periods in the Okinawa and Sakishima Islands and compares his results with the Amami Islands. In the Neolithic the semi-subterranean pit-house was the main type of dwelling in both Amami and Okinawa, but this type of building is not known from the Sakishima Islands. In the Okinawa chain, the most significant transition in house form was between the pit houses of the Late Shellmound period and the following Gusuku period when pit houses were replaced by above-ground buildings with regular rows of post holes. Sugii notes that until after the Early Modern period, fireplaces were consistently open hearths; open-topped clay stoves with a hole to feed fuel do appear in the Early Modern period but these should be seen as a development from hearths. The stove-like features found at the Hanta site on Kikai Island from the Gusuku period onwards can probably be explained through contacts with Kyushu. Sugii goes on to look at pottery bases, the form of which are intimately connected with cooking techniques. He notes that whereas the cooking pots of southern Kyushu influenced the Amami

Islands, no such influence reached Okinawa which firmly maintained its own particular life style. Sugii concludes with an overview of comparative research on state formation in this non-Yamato region.

Part 3 of the report deals with problems related to trade and exchange. In her chapter 'State Formation and the Shell Trade', Kinoshita looks to the exchange in shells that occurred between the 9th and 13th centuries to explain the special characteristics of the Ryukyus in the Gusuku period, developing a narrative that takes her to the formation of the state in the archipelago. The focus on the shell trade began in 1997 with the discovery of a large quantity of turban shells (*Turbo marmoratus*) together with a Tang dynasty Kaiyuan Tongbao coin at Yomisaki. Kinoshita argues that until the 9th century, the Ryukyus were a source for turban shells that were used to produce mother-of-pearl at the Tang court from the 7th century. Mother-of-pearl production shifted from China to Yamato in the 9th century and a large quantity of turban shells were used in Yamato through to the 13th century. From the 9-11th centuries, the development of mother-of-pearl craftsmanship in Yamato and the demand for that product in the Song and Silla states resulted in the Ryukyus gaining increased attention from merchants based in Hakata. Those merchants began to actively travel south in search of turban shell. Kinoshita suggests that the Sue kiln established on Tokunoshima Island in the 11th century was constructed by the Hakata merchants in order to provide goods to exchange for turban shell. Merchants with talc bowls, Sue ware, and porcelain and other high-fired ceramics tried to obtain turban shell from as far south as the Sakishima Islands. As a result, trade goods were distributed throughout the Ryukyu archipelago and Kinoshita argues that this led to the development of a shared pattern of dry-field-based farming and social stratification. After the end of the trade in turban shell in the second half of the 13th century, the Ryukyu kingdom was economically strong enough to begin its own trade with East Asia.

In 'Excavated Coins and Trade in the Ryukyu Islands', Hiroki Obata looks at trade and the social functions of coins from the eve of the Gusuku period in the 11th century to the height of the Ryukyu kingdom in the 16th century. Analyzing 6609 coins excavated from the Ryukyus, Obata establishes two transitional periods in the mid-12th and mid-14th centuries and summarizes the development of coin use as follows.

> Phase 1 (ca. 1000-1150): Coins not used or else only to a very limited extent. (The beginning of private trade by Ryukyu chiefs).
>
> Phase 2 (ca. 1150-1350): The appearance of foreign coins. (Private trade by the *Aji*).
>
> Phase 3 (ca. 1350-1600): Expansion of coin use. (Intermediary tribute trade).

Obata notes that Ritsuryo state payments using old coins and coins sanctioned for foreign trade were clearly differentiated even in the Ryukyus. He describes the appearance of the latter coins following his Phase 1 as a process that paralleled the start of the Gusuku period. From the circulation of coins and trade ceramics throughout Japan, Obata proposes that the quantity of coins in the Ryukyus increased in the second half of the 13th century; after that time the

distribution of coins can be traced from historical records. The use of coins in the Ryukyus was clearly influenced by the Japan-Song trade in Hakata. Obata's research confirms that large coins circulated to places with active trade—Hakata, the Ryukyus and Tsushima. From the 12 century, the East Asian trade zone was marked by a coinage system based on market principles rather than the official credit of the Chinese absolute state. Obata concludes that coins in the Ryukyus also appeared as part of this economic system.

Akito Shinzato's chapter, 'A Basic Study of Talc Bowls', provides detailed new lists and distribution maps of the 888 sites where these bowls have been discovered in Kyushu and Okinawa. Talc bowls were used throughout the Ryukyus from the 11th to 13th centuries and ceramic copies of these bowls also appeared. Shinzato argues that the appearance of these vessels coincides with the end of the Shellmound period in Okinawa and the Aceramic period in Sakishima and the establishment of agricultural society in both island groups. Shinzato divides talc bowls into an earlier type with handles and a later type with a projecting flange. From a comparison of the distribution of these two types, he concludes that talc bowls were probably directly imported into the Ryukyus from Hakata and other parts of north Kyushu. He also notes that the ceramic copies produced in the Ryukyus were from start to finish copies of the older handle type; the flanged type of bowl did not influence the Ryukyus at this time. Shinzato explains this difference by the type of hearth found in the Ryukyus, using Yasuji Asaoka's conclusion that "if flanged kettles (*kama*) are closely connected to clay stoves (*kamado*), then bowls (*nabe*) are vessels connected with sunken hearths" [Yasuji Asaoka, *Nabe, Kama* (Bowls and Kettles). Tokyo: Hosei University Press, 1993].

3. The End of the Project

With the end of this series of cooperative research endeavours, I consider the biggest success of our project to be the use of the analyses of plant, mollusc and faunal remains in environmental and subsistence reconstructions. These results stimulated us to expand our archaeological horizons and introduce new excavation methods. Annual research meetings were also an important chance to exchange opinions and discuss ideas in an interdisciplinary framework. Participating in the success of this project in both fieldwork and analysis was a wonderful experience.

The series of excavations at Nagarabaru Higashi produced different opinions regarding the date of the site with Kinoshita suggesting the 6th century and Komoto the 8th onwards. This rift may seem like a serious academic conflict in the Department of Archaeology at Kumamoto University, but in fact it reflects wider problems with the chronology of the Late Shellmound period. In the future I hope to continue a broad debate on this problem with the help of, among others, the members of the Okinawa Late Period Pottery Research Society. As Komoto has noted, direct dating of the plant remains is also necessary.

The discovery of carbonized rice and barley at Nagarabaru Higashi is, of course, very important but, as Takamiya notes, there is still some way to travel between these finds and discussions of state formation. In contrast, the links between trade and state formation are much clearer and we were able to develop relevant analyses of coins, talc bowls and shells. These studies of trade, however, focus mainly on the 9th century and later and there is thus something of a chronological gap between the studies of subsistence and the studies of exchange. State formation in the Ryukyu Islands revolved around both agriculture and trade and it is my fault as project director that we were not able to integrate these approaches more successfully. Some unfinished soil samples and future improvements in excavation methods remain aspects of the project that could not be completed in time. I feel keenly that archaeological excavation is a one-time experiment and destructive process and I want to do my utmost to produce the best final report of the sites we dug The environmental and archaeological materials discussed in this report are of the highest quality and I am happy that we have been able to reach many new perspectives on this material. I am extremely grateful to all the project members, and to Akito Shinzato, for all of their work.

Naoko Kinoshita

March, 2002

(Translation: Mark Hudson)

總　　結

1. 共同研究的施行

本研究嘗試從生計活動及交易兩方面追究探討全長連綿長達 1200km 的亞熱帶島嶼琉球列島的形成狀況。我們使用在沖繩縣伊江島 Nagarabaru（地名譯者注 1）東貝塚實施的發掘調查，並進行收集關聯資料的方法追究這個問題。本研究是立足於實質的 1995~1997 年奄美大島用見崎遺跡的發掘調查，1998 年的 Nagarabaru 東貝塚第一次調查的延長線上，因此在此報告書中也將其列為檢討項目。

本研究的探討對象為 6~7 世紀，而這兩個發掘地正是吻合這個時期的遺跡，各分攤者各自從通史的視點上論究琉球列島全域之生計活動、交易及國家形成。因此本報告書之題名為『先史琉球的生計活動及交易』。

在進行這個共同研究時，必需留意的是，專門領域不同的7人(動物學、人物學、考古學)共有現場，如何的有效的發揮其研究成果。在發掘現場時留心層位的共同認識以及共有的問題，自然遺物用分析試料為各分攤者從現場直接採集，且我們盡力的將意見交換的成果反應在調查的方法上。在本書第 1 、 2 章中論及的，透過一種沙丁魚 *Sardinella clupeoides* 集中層的檢證指出其季節性、透過一種小型雙殼貝 *Pinctada pnaceae* (Jameson) (譯者注 2) 抽出其廢棄單位、成功的檢測出植物遺體、從硨磲貝 Tridacnidae 的合併狀態追究貝塚的形成過程作業等，這些都是在各個現場做出的判斷及連想。而這不只局限在現場的採集，在研究室中進行的自然遺物分析、資料的抽出、同定，統計處理上需要龐大的時間與勞力。在這裡收錄的成果是這樣的作業之累積，其為及佐證各分攤者邁向「人與環境的關係」的復元之實踐性方法論。

關於從生計活動及交易探討國家形成這個題目，是我們在研究會中全體進行討論而來的。而在報告書中將之二分為，一為從生計活動探討及從交易探討兩方面，再者為關於生計活動與國家形成方面。甲元真之負責農業之始，高宮廣土、樋泉岳二、黑住耐二從植物遺體、脊椎動物遺體、貝類遺體探討奄美、沖繩的環境及生活復元。杉井健論及居住形態的變遷。而關於交易與國家形成方面，木下論及貝殼的交易，小畑弘己則擔當貨幣的使用狀況；在後項中收錄的「滑石製石鍋的基礎研究」是特別委託當時熊本大學碩士課程在學的新里亮人所執筆。在此共同研究施行前木下將議論的前提—用見崎遺跡及 Nagarabaru 東貝塚的發掘調查內容之概要提出，論述 6~7 世紀的奄美及沖繩諸島。以下將各論考歸納、進行總結。

2. 成果概要

於「第一章 遺跡概要與 6 ~ 7 世紀之琉球列島」中，木下提到從用見崎遺跡和 Nagarabaru 東貝塚調查結果得知，由於者面向通海水路意圖的成為夜光蠑螺貝殼的集中場所，此為提供中國夜光蠑螺 *Turbo* (Lunatica) *marmorata* (Linnaeus) 之地的可能性很高，相形於此，後者的遺跡則為較短時間下形成的食料殘渣廢棄所，提供闊唇鳳凰螺給古墳時代的九州、闊唇鳳凰螺 *Tricornis latissimus* (Linnaeus) 和芋螺 *Lithoconus littertus* (Linnaeus)給種子島的可能性很高。關於上述二遺跡的時

期，我們基於遺跡出土狀況、土和貝符一連串形式學考察，將用見崎遺跡區別為7世紀和 Nagarabaru 東貝塚為 6 世紀前後之遺跡，綜合起各項調查成果整理出下列 6 、 7 世紀奄美和沖繩列島的相關資料。於 6 世紀時很有可能是因奄美人的參與使得琉球列島和大和因貝殼交易而有所連繫的可能性很高，在與南九州的相連繫下得以誕生出兼久 kaneku 式土器（平底土器）。而在南九州影響下較遠的沖繩列島殘留著在地土器（尖底土器）的傳統。在這樣的時期在伊江島（Nagarabaru 貝塚）中出現了稻、小麥。基於植物的種子、陸產的貝類等之分析結果顯示，這些為伊江島以外的地方攜帶而來的可能性很高。而在觀察 6 世紀前後的伊江島的對外交流情況，不能否定其為在貝類交易下換來之物的可能性。然而，這些穀物的起源除了九州、沖繩列島和奄美列島以外雖都具相當可能性，在現階段有進一步議論的困難。 7 世紀是結束先史時代貝類交易的時期，到了後半，為大和與南島間形成了「律令國家對外化」，即大和政府的單方性政治關係發生的時期也是南島與中國間，夜光螺螺發生需求與供給的時期。在這一時期裡，種子島、屋久島、吐喝喇列島的人上京城，而從京城帶有政治使命的官員亦南下。到了 8 世紀沖繩列島的各項情報則得以傳至京城。在新生的從北至南之政治活動之下，奄美兼久式土器的影響範圍達到沖繩列島，於 7 世紀後出現了 Akajanga（地名）式土器。從 6 世紀到 7 世紀之中，有關南島與大和之間的關係從先史時代的「相互的經濟關係」演變為古代的「單方性政治關係」，而奄美與沖繩列島的文化差異則與九州的距離相應。

以下是「第二章　關於生計活動的諸問題」所收論文之概要。

首先，甲元於「琉球列島農耕之始」中指出，透過考古學來論述農耕，必須檢驗證實出栽培過程中的具體行為和土地痕跡之相互關係，遺跡內的種子分析和種子本身的年代測定是相當重要的。甲元舉出 Gusuku 時代（12-16 世紀）前，有穀物（農作物）伴隨出土的那霸市那崎原、久米島 Yajagama(遺址名)、伊江島 Nagarabaru 東貝塚為檢討對象，證實 Gusuku 時代以前的確有農耕的存在。而穀物炭化的意義為，他引用民俗例、繩文時代堅果類的處理例子進行考察，指出這與使用火的某種處理方式有關。另外 Aakajanga 式陶器和與其並列的奄美兼久式陶器相比較下，表示這個論考較為妥當。參考最近的後期陶器編年案，探討 Nagarabaru 東穀物共伴層的陶器底部形狀以及突帶之特徵，檢討其調整特徵後，與其說這是 Akajanga 式陶器不如說是之後的 Fensa 下層式陶器相近的時期。根據在 Nagarabaru 東的 ^{14}C 年代「層位逆轉」，認為 Nagarabaru 東的層位為攪亂或其認定有誤，無法直接使用。將之看做為與 ^{14}C 年代值相伴之尖底土器年代，把 Akajanga 式陶器由此分離出。換言之， Nagarabaru 東的穀物於尖底土器和 Akajanga 式陶器新舊 2 型式的攪亂層中出土，這原本不過是後者解釋而以。甲元試將 Nagarabaru 東穀物的時期比定為 8 世紀以後，將那崎原和 Yajagama 設為同列資料，甲元指出後 2 者與炭化稻桿或焦土層相伴隨，而三者皆伴有穎和芒這點看來，此為在地脫穀過程中所遺留下的資料。

高宮則以「島」的觀點、人類學的看法來看琉球列島史，認為理解從狩獵採集經濟演變成農耕經濟之時宜，是了解農耕是如何與與國家形成結合重要的因素。高宮在「從植物遺體看奄美・沖繩農耕之始」中，介紹有關沖繩列島農耕起源至今被提出的 7 種假設，他指出這些假設皆為間接性或以實為憑的七項假設。他親自實行 flotation 、援用和檢測出植物種子的用見崎、 Nagarabaru 東、高知口原和那崎原的成果為基，將沖繩貝塚時代後期劃分為 3 期，將栽培植物的使用有無分為兩類。高宮將其組合如下。前期（紀元前 1 世紀到 4~5 世紀）類似高知口原所產的堅果類，其為主要植物性食物的可能性很高；中期（5~6 世紀到 8 世紀）分別有像用見崎不使用栽培值物和使用栽培植物的如 Nagarabaru

東兩種模式；後期（8~9 世紀到 10~12 世紀）時明顯的可看出有農耕的存在，如那崎原。此外，指出由近期的形質人類學和言語學上的研究成果中看來，於 Nagarabaru 時期以前，人們已移住到琉球列島的可能性，高宮認為 10~12 世紀與此相對應。而有關 Nagarabaru 東的稻、小麥除了透過交易取得外，高宮表示有隨持有穀物的人們的季節性遊動的可能性之新論點。最後言及，到由於農耕本身不具將其社會引導向原初國家的功能，今後有必要追查探究關於那崎原階段以後的人口動態和農耕社會之成立。

樋泉在「從脊椎動物遺體群看奄美・沖繩的環境和生活」中，借用用見崎和 Nagarabaru 東的分析結果引導出三種漁勞方法，此外，更概括出從沖繩貝塚時代至 Gusuku 時代的琉球列島所有脊椎動物資源利用之特徵。並強調，在這前提下分析的資料表示和定量化方法的統一是不可欠缺的。而所謂 3 種類的漁勞方法，是指 1)將珊瑚礁的多種類小魚一次捕獲，為選擇性低的漁勞法、 2)選定大型武鯛等為目標的高選擇性漁勞法、 3)捕獲沿岸淺灘的回游性小魚之季節性漁勞。將此 3 種種類型的漁勞方法與至今被論及的沿海環境類型「干瀨型」和「礁池型」(譯者注 3)組合的結果，成功地得知漁勞活動的選擇性。即用見崎人偏向 1)類型，而 Nagarabaru 東人有自秋天至春天從事集中性漁業活動的可能性。此外，並指出貝製網墜為 1)類型的相關道具之可能性很高。再者透過脊椎動物遺体，通史性的概觀琉球先史時代樋泉以下諸點。

- 貝塚時代的奄美・沖繩被如同現今山原地域可見的照葉樹林所覆蓋，但因 Gusuku 時代以後的森林採伐而森林縮小。
- 貝塚時代的沿岸環境，可推定與現在沒有大差異。
- 於 Gusuku 時代發生「遠離海」現象，傳統的漁勞型態急速變質和衰退。
- 貝塚時代的脊椎動物資源利用，前期到後期為止持續以漁勞和獵山豬為主的類型。
- 關於家畜的利用至貝塚時代後期後半為止，豬是由大陸被帶來的可能性很高。

黑住在「從貝類遺體看奄・沖繩的自然環境與生活」是論述從二個遺跡的分析導出的成果及琉球列島從貝塚時代到 Gusuku 時代之變遷。黑住指出從陸產微小貝類的分析得知，用見崎遺跡周邊當時為開放的環境及從 Nagarabaru 東貝塚附近海岸的開林法隨時期改變而有所變化。他更指出陸產微小貝是顯示環境的細微時期變化最有效的指標，在使用花粉或植物蛋白石不易得到結果的砂丘中，陸產貝類對古環境復元最具效果。黑住認為蝸牛和 *Cypangopaludina chinensis* (Gray) 田螺的一種，為表示農耕地和水田地的存在有效的指標，但在比照下 Nagarabaru 原東貝塚附近有農耕地和水田地的可能性較低，而微小貝類並沒有顯示出 6~7 世紀時轉移至生產經濟的必然性。此外，黑住指出從 Nagarabaru 東的一種小型雙殼貝 *Pinctada pnaceae* (Jameson)的集中丟棄看來，得知遺構面並無受台風等的攪亂。更注意到在兩遺跡中高低潮間的海岸區域，岩礁裡存在許多中・小型的雙殼貝或蜑螺 Neritidae 類，像這樣的小型貝殼的使用在貝塚時代的遺跡相當多見。而從其破損的有無判斷可能是因肉類的攝取的理由，將之煉成高湯、或鹽分攝取、或是進一步意圖採取真珠，黑住指出這有對各遺跡進行檢討的必要。關於 Gusuku 時代的貝類使用是從珊瑚礁的大型貝類變化為內灣・干瀉的小貝類，這個至今的論點黑住指出其變化的主要因素與其說是自然環境之變化，不如說社會性因素而形成。

杉井在「沖繩諸島的居住形態變遷及其特質」中，將琉球列島視為「前方後圓墳分部圈的周邊地域」，並採用藤本強的南北比較觀點，在北海道不改變生計活動的基本土器或居住形態採用大和形式（譯者注 4）但並沒有形成統一的政治組織，相對的在琉球列島將基本的生計活動改變成農耕形態而建立統一的王

朝一杉井將這論點置於念頭中，並注意住居及生火處的位置由此探討其變遷。杉井以沖繩諸島、先島諸島的新石器時代～近世的住居 193 例、屋外爐 40 例為對象將之分析，且與奄美諸島做比較，以下為其所述內容。新石器時代豎穴居式住居為住居形態的主流這點上奄美諸島與沖繩諸島的居住形態雖沒有找出較大的差異，但這與不能確認豎穴居式住居的先島諸島有明確的差異。而將焦點注目於豎穴居式住居時可，斷定沖繩諸島居住形態的變遷中最大的時期區分為以豎穴居式住居為主體的貝塚時代後期及豎穴居式住居消失後規則的柱穴配置的掘立柱建築為主流的 Gusuku 時代之間。此外生火處在近世以後一貫都是爐，沒有頂棚有灶門的灶是近世形成的，杉井指出這也是從爐的變遷中可看出的，在喜界島 hannta 遺跡中被檢出 Gusuku 時代以後的灶狀設施是探求與九州本島的關係的線索。另外更言及與生火處有密切關係的土器的底部形狀，奄美諸島的甕受南九州的影響，他指出相對的沖繩諸島並沒有受到影響，他們堅強的維持生活樣式的獨自性，杉井並敘述這與非大和的地域的國家形成比較研究的展望。

以下為「第三章 關於交易的諸問題」所收錄之 3 論文的歸納。

木下於「貝殼交易及國家形成」中，透過追究 9 世紀至 13 世紀的貝殼交易動向來論究附與 Gusuku 時代特徵的，琉球圈是如何形成，且欲探求琉球列島的國家形成的故事。對於貝殼交易的注目是起源於在 1997 年用見崎遺跡的調查時與大量的夜光蠑螺出土的同時開圓通寶也同時出現這件事。木下在 2000 年時，把至 9 世紀為止琉球列島是否提供了 7 世紀以後中國唐朝皇室需求變高的螺鈿材料的原料夜光蠑螺 *Turbo* (Lunatica) *marmorata* (Linnaeus)相關資料整理成論文。這一次的論考為其續篇，本論文是以螺鈿工藝史研究的成果 9~10 世紀時在大和傳承了唐螺鈿、 11 世紀發展、 12 世紀迎向成熟期、 13 世紀貝殼的材料由夜光蠑螺變化成鮑魚貝等一為前提所構成。主旨為下所述。 9~11 世紀時在大和螺鈿工藝的發展及對宋和新羅交易的貿易品的需求變大，以博多為根據地的商人的關心轉向琉球列島，以為取得夜光蠑螺為目地積極的南下。假若在 11 世紀時開業的德之島須惠器窯是因和博多商人有深切關係而建，那麼這就是夜光蠑螺交換品生產為目地的窯，攜帶須惠器、石鍋、陶磁器的商人們為求得夜光蠑螺遍及先島諸島，交易的文物遍及琉球列島全域，其結果，共通的旱田作物中心的農業在列島上展開，社會也進入階層化。本論中木下敘述了夜光蠑螺交易結束後的 13 世紀後半，琉球自力開始對東亞交易開始的為止的經緯。

小畑在「從出土錢幣看琉球列島與交易」中，以 Gusuku 時代前夕至琉球王國期的 11 世紀到 16 世紀為對象，探討出土的錢幣動態及追究錢幣的社會功能及貿易的實際狀態。小畑以在琉球列島內出土的 6609 枚錢幣為對象進行檢討，發現錢幣使用的時期為 12 世紀中葉至 14 世紀中葉，小畑並將琉球列島的錢幣使用動態整理如下：

I 期（11 世紀~12 世紀前半）：錢幣不可使用或低潮期（首長層的私自貿易開始）

II 期（12 世紀後半~14 世紀前半）：身為對外貨幣的錢幣登場期（按司的私自貿易時代）

III 期（14 世紀後半~16 世紀）：錢幣使用的擴大期（因進貢貿易而形成的轉口交易時代）

小畑將律令國家的支付方法的古代錢及對外交易用的錢幣的使用，在沖繩列島的狀況也明快的將之區別，夾著 11 世紀錢幣不可使用的時期將後者的登場過程與 Gusuku 時代的開始併行描繪出來，此外從全國的錢幣流通及貿易陶磁的流通量上看來，可看出琉球列島的錢幣增加時期為 13 世紀後半，將那之後的貨幣流通的狀態如文獻所示。小畑確認了琉球的錢使用方法與博多的日宋交易狀況極為相近，貿易興盛的地區大型錢的流通在博多、琉球、對馬的檢證很重要。並指出 12 世紀以後在東亞貿易圈中，

與中國專制國家的國家信用無關係的，只基於市場原理金錢體係的確立，狀況琉球的貨幣在這樣的狀況中登場。

新里在「滑石製石鍋的基礎研究」中，將在九州、沖繩出土的 888 個地方集成，明示出土一覽表及詳細的分布圖，提供了今後石鍋研究新的基礎資料。新里強調， 11 世紀到 13 世紀石鍋在琉球全域被消費的事實，及因石鍋的登場琉球列島上出現石鍋模仿土器，以這個時期為界沖繩諸島結束了貝塚時代，先島諸島結束了無土器時代，並注意在兩地區成立農耕社這件事，新里強調石鍋在時期變化的指標上有重大意義。此外將石鍋大致區別為早期附把手石鍋及後期附鍋緣的石鍋，將各個分布做比較，琉球列島的石鍋從博多等北部九州直接搬入的可能性相當高，新里指出沖繩的石鍋模仿土器，從成立到結束模仿早期的把手石鍋，沒有受到附鍋緣石鍋的影響。關於後者中可看出的選擇性的起因，新里引用朝岡康二的論點「窯與灶密切連結相對的鍋是與地爐相連節的器具」，預測其原因為與生火處的形態有關連。

3. 結束共同研究

透過一連的共同研究，植物遺體、貝類遺體、脊椎動物遺體各自的分析結果，對於環境的復原及生計活動的復原有一定程度的成功，這樣的成果考古學班受到刺激因而拓展視野，在發掘的方法上下工夫等，其學問上的進展即為其成果。此外在每年的研究會中，跨越領域，相互獲益良多。這樣的動物學、人類學、考古學的共同研究，透過調查及議論發現成果這一點是相當愉快的經驗。

關於還在進行發掘調查的 Nagarabaru 東貝塚，其時期比定有 6 世紀前後的說法及 8 世紀以後的說法，這個問題先擺在一邊，但這也直接反應了貝塚時代後期編年的問題點。關於編年方面，願一方面請沖繩後期土器研究會諸氏賜教，一方將問題點整理，希望能繼續廣汎的議論下去。此外如同甲元所述，種子的年代測訂是今後不可欠缺的課題。

在 Nagarabaru 東貝塚中成功的檢出炭化的稻、麥雖是令人相當高興的話題。但如同高宮廣土所指出的，這與論及國家形成之間還有相當距離。另一方面，關於交易與國家形成，錢幣、滑石製石鍋、貝殼交易三者都展開與此相關連的論理，但時期集中在 9 世紀以後，與從生計活動引導出的議論間產生了一些空隙。將琉球的國家形成設定為農耕與交易兩者不可缺一而形成的，但這兩者之間並沒有十足的相契合，此為木下之責任。此外還留有土壤樣本分析未完了部份、調查分法等今後應改善的問題。我們將發掘調查視為一次性的實驗，這同時也是進行破壞這件事銘記在心，因此在發掘時及製作報告書時盡最善的努力，引以為自戒。

很高興這報告書，不論是自然科學的領域或考古學的領域都是資料價值相當高的成果。在各自的論考中也提出了不少新的重要論點。

在此向共同研究的研究者各位及新里亮人氏致上最深的謝意。

木下 尚子

(賴雲莊:譯)

2002 年 3 月

譯者注：

1. Nagarabaru 東貝塚，地名， Nagarabaru 為當地方言。

2. 多見於珊瑚礁地區的熱帶海域產生之海貝
3. 「干瀨型」和「礁池型」是伊波壽賀子命名的珊瑚礁漁撈類型。干瀨型是以鸚嘴魚 Scaridae 為主的漁撈類型、礁池型是以 Lethrinidae 為主的漁撈類型。
4. 大和形式，純日本本土形式，琉球諸島、北海道等被視為與日本本土文化相異之地區。

총 괄

1. 공동연구의 실시

본 공동연구는 길이 1200㎞에 걸쳐서 이어져 있는 아열대의 섬들, 琉球列島에 어떻게 국가가 형성되어 왔는가를 생업과 교역의 양면에서 추구한 시도이다. 우리들은 沖繩縣 伊江島 나가라바루東패총의 발굴조사를 실시하고, 아울러 관련 자료를 수집하는 방법으로 이 문제를 추구하였다. 본 연구는 실질적으로 1995~1997년의 奄美大島用見崎유적의 발굴조사, 1998년의 나가라바루東패총 제 1차 조사를 포함하는 일련의 조사 연구의 연장상에 있기 때문에, 보고서에서는 이것들도 더하여 검토 대상에 포함시켰다.

본 연구에서 대상으로 한 것은 6~7세기이고, 또 2곳의 발굴조사 대상지는 이에 대응하는 시기의 유적이며, 각 분담자는 각각 琉球列島 전역을 통사적으로 보려는 시점에서 생업, 교역, 국가형성을 논하고 있다. 보고서의 표제를 『선사琉球의 생업과 교역』으로 붙인 것은 이와 같은 까닭이다.

공동연구를 진행함에 유의했던 것은, 전문분야가 다른 7명(동물학, 인류학, 고고학)이 조사현장을 공유하면서, 어떻게 효과적으로 공동연구의 성과를 올릴 수 있을까 하는 것이었다. 발굴현장에서는 층위에 대한 공통인식과 같은 문제의식을 가지고, 자연유물 분석시료는 각 분담자가 현장에서 직접 채집하는 것으로 하고, 의견교환의 결과를 조사방법에 반영하려고 노력하였다. 본서 제 1·2장에 언급되었던, 야마토미즌 집중층의 검출에 의한 계절성의 지적, 미도리아오리에 의한 폐기 단위의 추출, 식물유체 검출의 성공, 샤코조개의 합병상황으로부터 패총의 형성과정을 추구하는 작업 등은 각 현장에서의 판단이나 발상으로부터 도출되었다. 현장에서의 채집에 한하지 않고, 자연유물의 분석은 연구실에서의 자료추출, 동정, 통계처리에 방대한 시간과 노력을 요한다. 여기에 수록된 성과는 이러한 작업의 집적과, 각 분담자의 「인간과 환경의 관계」 복원에 기울였던 실천적 방법론에 뒷받침된 것이다.

생업과 교역에서 국가형성을 살피는 테마에 관해서는, 연구회를 통해서 전원이 논의하였으며, 보고서에서는, 생업에서 국가형성을 논한 것과, 교역에서 논한 것 2가지로 나누었다. 생업과 국가형성에 대해서는, 농경의 시작을 甲元眞之가, 식물유체·척추동물·패류유체를 통하여 奄美·沖繩의 환경과 생활복원을 高宮廣土, 樋泉岳二, 黑住耐二가 주거형태의 변천을 杉井健이 각각 논하고, 교역과 국가형성에 대해서는, 조개 교역과의 관계를 木下가, 동전의 사용상황을 小畑弘己가 담당하였다. 나중에 수록된 「활석제石鍋의 기초적 연구」는 당시 구마모토대학 석사과정의 新里亮人에게 집필을 의뢰하였다. 논의의 전제가 된見崎유적과 나가라바루東패총의 발굴조사 내용에 대해서는 木下가 개요를 쓰고, 6~7세기의 奄美와 沖繩諸島에 대해서 논술했다. 이하 각 논고를 요약하고, 총괄한다.

2. 성과의 개요

「제1장 유적의 개요와 6~7세기의 琉球列島」에서, 木下는見崎유적과 나가라바루東패총의 발굴조사 성과에서, 전자가 바다에 나아가는 수로에 면하여 야광조개 패각을 의도적으로 집중시켰던 장소이고, 중국에 야광조개를 공급했던 장소였을 가능성이 높다는 점, 후자가 비교적 짧은 시간에 형성되었던 음식물쓰레기 폐기장소이고, 고분시대의 九州에 고호우라조개를 공급하고, 種子島에 고호우라조개·이모조개를 공급하였던 장소였을 가능성이 높다는 점을 서술하였다. 두 유적의 시기에 대해서는, 유구의 출토상황, 토기와 패부의 형식학적 고찰에 기초하여, 用·見崎유적을 7세기 전후, 나가라바루東패총을 6세기 전후에 유적으로 하고, 각각의 조사 성과를 종합하여, 6·7세기의 奄美와 沖繩諸島를 다음과 같이 정리하였다. 6세기에는, 琉球列島와 大和를 연결한 조개의 교역이 奄美人의 중개에 의해 실현되었을 가능성이 높고, 南九州와 관계가운데에서 奄美諸島에 兼久式토기(평저토기)가 탄생한다. 이에 반해 南九州의 영향으로부터 먼 沖繩諸島에서는 재지토기(첨저토기)의 전통이 오래 잔존한다. 이러한 시기에, 伊江島(나가라바루東패총)에 벼, 밀이 등장한다. 식물종자, 육지산패류의 분석결과에 따르면, 이것들은 伊江島 이외의 지역에서 가져왔을 가능성이 높고, 또한 6세기 전후의 伊江島의 대외교역 상황을 감안한다면, 이것들이 조개 교역의 교환재로서 가져왔을 가능성이 높다. 그러나 이것들이 어디에 기원하는 곡물이었는가는, 九州이었을 가능성 외에, 다른 沖繩諸島 또는 奄美諸島이었을 가능성도 부정할 수 없어, 현시점에서 이 이상의 논의는 어렵다. 7세기는 선사시대적인 조개의 교역이 종결된 시기이고, 그 후반에는, 大和와 南島 간에, 「율령국가와 주변」이라는 大和에 의한 일방적인 정치관계가 생겨난 시기이고, 또한 南島와 中國 사이에 야광 조개 수급관계의 탄생시기이기도 하다. 이 시기 種子島, 屋久島, 吐喝喇列島의 사람들이 궁도로 향하고, 궁도로부터는 정치적 사명을 띤 공무원이 남하하게 된다. 이러한 가운데, 7세기 말에는 奄美人이 大和로 北上하고, 더욱이 8세기에는 沖繩諸島의 정보가 궁도로 전해진다. 새롭게 일어난 북에서 남으로 향하는 정치적 움직임 가운데, 奄美의 兼久式 토기의 영향이 沖繩諸島에 이르고, 7세기 후반에 아카쟌가式 토기가 생겨난 것으로 보여진다. 6세기에서 7세기의, 南島와 大和와의 관계가, 선사시대의「상호 경제적 관계」에서, 고대의「일방적인 정치관계」로 변화하고, 奄美와 沖繩諸島의 문화적 차이는 南九州와의 거리에 따라 더욱 명료해진 것을 서술하였다.

이하, 「제2장 생업을 둘러싼 제 문제」에 수록된 논문의 개요를 기술한다.

甲元은「琉球列島의 농경의 시작」에서, 고고학에서 농경을 논함에는 재배과정의 구체적 행위와 지상의 흔적과의 상관관계를 검증하는 것, 유구내의 종자 분석, 종자자체의 연대측정이 중요하다고 하였다. 甲元은 구스쿠시대(琉球列島의 12~15세기의 시대구분) 이전 곡물을 수반한 那覇市 那崎原, 久米島야쟌가마, 伊江島나가라바루東 유적을 들어 검토하고, 구스쿠시대 이전에 농경이 존재하고 있었던 것은 확실하다고 하며, 곡물이 탄화되어 있던 것에 대한 의미를 민속예나 縄文時代의 견과류의 처리 예를 들어서 고찰하고,

이것이 불을 사용했던 어떠한 처리방법에 관련한 것으로 지적하였다. 더욱이 최근의 후기토기 편년안을 참고로, 나가라바루東유적의 곡물 공반층 토기의 저부 형상, 돌대 특징, 조정 특징을 검토하고, 이것들이 아카쟌가式이기 보다는 다음의 헨사하층式에 가까운 시기의 것으로 보고 아카쟌가式에 병행하는 奄美의 兼久式과 비교하여, 그 주장의 타당성을 입증하였다. 더욱이 나가라바루東유적의 C14연대의 층위 역전을 근거로, 나가라바루東유적의 층위는 교란 또는 그러한 인정이 잘못되어 이대로는 사용할 수 없음으로 C14 연대치를 공반하는 첨저토기의 연대로 간주하고, 아카쟌가式을 여기에서 분리했다. 즉, 나가라바루東유적의 곡물은, 첨저토기와 아카쟌가式토기로 하는 신 고 2형식의 교란층에서 출토했기 때문에, 본래는 후자에 공반한 것으로 해석한 것이다. 甲元은 나가라바루東유적의 곡물의 시기를 8세기 이후로 비정하고, 那崎原이나 야쟌가마와 같은 예의 자료로써, 후 2자가 탄화된 짚이나 탄층에 공반하는 점, 3예 모두 이삭이나 까끄라기를 공반하는 점에서, 이것들이 재지의 탈곡과정에서 남겨진 자료라는 것을 주장하였다.

高宮은, 琉球列島의 역사를 「섬」의 시점에서 인류학적으로 보고 있고. 수렵채집경제에서 농경경제로의 변화의 시점을 이해하는 것, 농경이 국가형성에 어떻게 관련되는가를 이해하는 것이 중요하다고 설명한다.

高宮은「식물유체로 본 奄美·沖繩의 농경의 시작」에서, 沖繩諸島의 농경의 기원에 관하여 이제까지 제기된 7가지의 가설을 소개하고, 모두 간접적 혹은 상황증거에 기초한 것임을 것을 지적하였다. 직접 플로테이션을 실시하고 식물종자를 검출한見崎, 나가라바루東, 高知口原, 那崎原유적의 성과와 함께 재배식물 이용유무의 2패턴을 설정하고, 沖繩패총시대 후기를 세 시기로 나누고, 각각을 이하와 같이 구성하였다. 즉, 전기(기원전 1세기에서 4~5세기)에는, 高知口原유적과 같이 견과류가 주요한 식물식이었을 가능성이 높고, 중기(5~6세기에서 8세기)에는見崎유적과 같이 재배식물을 이용하지 않은 패턴과, 나가라바루東유적과 같이 재배식물을 이용한 패턴이 있고, 후기(8~9세기에서 10~12세기)에는 那崎原유적과 같이 분명히 농경을 수반한 패턴이 성립한다고 본다. 또 구스쿠시대 이전에 琉球列島로의 인간 이주의 가능성을 지적하는 최근의 형질인류학 및 언어학의 연구성과로부터 10~12세기가 이에 대응하는 것으로 지적하였다. 나가라바루東유적의 벼·밀에 대해서는, 교역에 의한 수입외에, 곡물을 가진 사람들의 계절적 이동에 의한 가능성을 새로이 제시하였다. 마지막으로, 농경은 그 자체가 사회를 원초국가로 인도하는 역할을 하는 것이 아니기 때문에, 이제부터는 那崎原유적단계 이후의 인구동태와 농경사회 성립에 대한 추적이 필요하다는 것을 서술하였다.

樋泉은「척추동물 유체군로 본 奄美·沖繩의 환경과 생활」에서,見崎유적와 나가라바루東유적의 분석에서 3가지 패턴의 어로방법의 존재를 나타내고, 더욱이 沖繩패총시대에서 구스쿠시대에 이르는 琉球列島 전체의 척추동물 자원이용의 특징을 개괄한다. 그 전제로써 이러한 분석에는 자료표시와 수량화 방법의 통일이 불가결하다는 것을 강조한다. 3가지 패턴의 어로방법은, ①산호초의 다양한 작은 고기를 일괄 포획하는 선택성이 낮은 어로방법, ②대형의 비늘돔 등에 표적을 맞추는 선택성이 높은 어로방법, ③연안 얕은 여울의 회유성 작은 고기의 계절적 어로방법이다. 이러한 어로방법 3패턴을, 종래 제기되고 있던 연안환

경 유형의「갯벌형」,「여울형」과 조합함에 따라, 어로활동의 선택성을 이끌어내는 것을 가능하게 했다. 즉見崎人의 ①패턴으로의 편향성, 나가라바루東유적 人의 가을에서 봄의 집중적 어업활동의 가능성을 도출한 것이다. 또 패추는 ①에 관계된 도구였을 가능성이 높다는 것을 지적한다. 더욱이 척추동물 유체에서 琉球의 선사시대를 통사적으로 개관하고, 이하의 여러 논점을 서술한다. 패총시대의 奄美·沖繩諸島는, 현재의 山原地域에 보이는 조엽수림으로 덮여져 있었으나, 구스쿠시대 이후의 삼림벌채에 의해 삼림이 축소되었을 것으로 생각하였다. 패총시대의 연안환경은 현재와 큰 차이가 없었던 것으로 추정하였다. 구스쿠시대에는「해퇴」가 일어나, 전통적 어로형태가 급속히 변질·쇠퇴했을 것 같다. 패총시대의 척추동물 자원이용은, 전기에서 후기까지 어로와 멧돼지 사냥을 중심으로 한 패턴이 계속된다. 가축이용에 대해서는, 패총시대 후기 후반이 되면 대륙에서 돼지가 들어왔을 가능성이 높다.

黑住는 「패류 유체로 본 奄美· 沖繩의 자연환경과 생활」에서 두 유적 분석에서 도출된 성과 및 琉球列島의 패총시대에서 구스쿠시대로의 변화를 논하고 있다. 黑住는 육지산 소형조개의 분석에서見崎유적 주변이 당시 개방된 환경이었던 점, 나가라바루東패총 부근에서는 해안숲의 개방이 시기마다 변화하였던 것을 서술하고 육지산 소형조개가 환경의 미세한 시기 변화를 알려주는 유효한 지표인 점, 화분이나 플란트-오펄 분석에서는 성과가 나오기 어려운 사구에서 육지산 패류가 고환경 복원에 가장 유효하다는 점을 지적한다. 또한 달팽이류나 우렁이류가 각각 밭이나 논의 존재를 나타내는 유효한 표지인 점, 이에 비추어 보아도 나가라바루東패총 부근이 밭이나 논이었을 가능성이 낮다고 하고 6~7세기에 생산경제로 변화했음을 소형조개류는 보여주지 않는다고 결론지었다. 한편, 나가라바루東에서 미도리아오리의 집중투기에서 유구면에 태풍 등에 의한 교란은 없었다는 점을 지적하고 있다. 더욱이 양 유적에서 湖間帶 암초의 중·소형 합인조개나 주름혹 달팽이류가 많은 점에 주목하여 이러한 소형 조개의 이용이 패총시대의 유적에는 적지 않았음을 확인하고, 그 파손의 유무로부터 이것이 살의 섭취이었는지, 국으로의 이용 혹은 염분 섭취, 더욱이 진주의 채취를 의도한 것인가를 유적별 검토가 필요하다고 하였다. 구스쿠시대 패류 이용이 산호초의 대형 패류에서 내만·갯벌의 소형패류로 변화하였다는 종래의 지적에 대해서는 그 변화의 요인이 자연환경의 변화보다 사회적인 요인에 의한 변화라는 생각을 제시하였다.

杉井은「沖繩諸島 주거형태의 변천과 그 특질」에서 琉球列島를 전방후원분 분포권의 주변지역으로 받아들이고 藤本强에 의한 남북비교의 시점 — 北海道에서는 생업의 기본을 변함없이 토기나 주거형태에 大和的인 것을 받아들여 통일적 정치조직을 형성하지 않은 것에 반해 琉球列島에서는 기본적 생업을 농경으로 변화시켜 통일왕조를 만들었다 — 을 염두에 두고, 주거와 조리시설에 주목하면서 주거형태의 변천을 연구하였다. 杉井은 沖繩諸島, 先島諸島의 신석기시대~근세의 주거 193 예, 옥외 爐 40 예를 대상으로 분석하고 奄美諸島와 비교하여 아래와 같이 서술하고 있다. 신석기시대 수혈식주거가 주거형태의 주류라는 점에서 奄美諸島와 沖繩諸島의 주거형태는 큰 차이를 보이지 않으나 수혈식주거가 확인되지 않는 先島유적과는 명확하게 다르다. 수혈식주거의 유무에 주목하면 沖繩諸島에서 주거형태의 변천 중 가장 큰 획기는

수혈식주거를 주체로 하는 패총시대 후기와 수혈식주거가 사라지고 규칙적인 주혈 배치의 굴립주건물이 주류가 이루는 구스쿠시대 사이로 파악된다. 또한 조리시설이 근세 이후까지 일관되게 爐인 점, 천정이 없는 아궁이를 가진 부뚜막이 근세에 성립되나 이것도 爐의 변천가운데에서 파악되는 점, 喜界島 한타유적에서 검출된 구스쿠시대 이후의 부뚜막모양 시설이 九州 본도와의 관계를 연구하는 실마리인 점을 지적한다. 더욱이 조리시설와 밀접하게 관련 있는 토기의 저부 형태를 언급하여, 奄美諸島의 옹이 南九州의 영향을 받은 것에 반해서 沖縄諸島에서는 그 영향이 없으며 생활양식의 독자성이 강하게 유지되었다는 것을 지적하며 비 大和 지역에서 국가의 형성에 관한 비교 연구의 전망을 서술하고 있다.

이하에서 「제3장 교역을 둘러싼 제 문제」 실려 있는 세 논문을 요약하고자 한다.

木下는 「조개 교역과 국가형성」 에서 구스쿠시대를 특징지우는 琉球圈이 어떻게 형성되었는가를 9~13세기의 조개 교역의 동향을 따라 연구하고 琉球列島의 국가 형성에 이르는 과정을 살피고 있다. 조개 교역에 대한 주목은 1997년의 用·見崎유적의 조사에서 다량의 야광조개와 함께 開元通宝가 출토한 것에서 시작하고 있다. 木下는 7세기 이후 중국 唐 왕실에서 수요가 많았던 나전의 소재인 야광조개를 9세기까지는 琉球列島가 제공한 것으로 보고, 2000년 이에 관한 논문을 작성하였다. 이번의 연구는 그 속편으로 나전 공예사 연구의 성과 — 9~10세기에 大和에서 나전이 계승되었고 11세기에 발전하여 12세기에 성숙기를 맞이하고 13세기에 그 소재가 야광조개에서 전복 등으로 변화하였다.—를 논의의 전제로 하고 있다. 주된 내용은 아래와 같다. 9~11세기 大和에서 나전공예의 발전과 그 宋과 신라로의 무역품으로서의 수요 증가가 博多에 근거를 둔 상인의 관심을 琉球列島로 향하게 하여 야광조개 입수를 목적으로 한 적극적인 남하를 재촉하였다. 11세기에 개업한 德之島의 須惠器 가마는 이러한 博多의 상인이 깊게 관계하여 성립시킨 야광조개의 교환품 생산을 목적으로 한 가마로 상정하고 須惠器와 石鍋, 도자기를 가진 상인이 야광조개를 구하여 先島諸島에까지 이르렀기 때문에 교역문물이 琉球열도 전체에 퍼지고 그 결과 공통적으로 밭 농사 중심의 농경이 열도에 전개되어 사회의 계층화가 이루어진 것으로 본다. 야광조개 교역을 장악한 13세기 후반 琉球는 자력으로 對동아시아 무역을 개시하게된 것이다

小畑은 「출토 동전으로 본 琉球列島와 교역」 에 대하여 구스쿠시대의 직전에서 琉球왕국기에 이르는 11세기에서 16세기를 대상으로 출토 동전의 동태를 연구하여 동전의 사회적 기능과 무역의 실태를 추구하고 있다. 小畑은 琉球列島내 출토 동전 6609매를 대상으로 검토하여 동전 사용의 획기를 12세기, 14세기로 보고 琉球列島 동전의 동태를 아래와 같이 정리하였다.

Ⅰ기(11세기~12세기 전반): 동전의 사용이 없거나 또는 저조한 시기 (수장층에 의한 사무역의 개시)

Ⅱ기(12세기 후반~14세기 전반): 대외화폐로서 동전의 등장기(按司에 의한 사무역의 시대)

Ⅲ기(14세기 후반~16세기): 동전사용의 확대기(조공무역에 의한 중개 교역의 시대)

小畑은 율령국가의 지불수단으로서 고대 동전과 대외무역결제용의 화폐를 琉球列島에서도 명쾌하게 구별하여 11세기의 동전 불사용기를 사이에 두고 후자가 등장하는 과정을 구스쿠시대의 개시와 병행하여 그려

내었다. 또한 전국적인 동전유통과 무역 도자의 유통량에서 琉球列島에서 동전이 증가한 시기를 13세기 후반에 구하고 있으며 그 후의 동전유통의 양상을 문헌에서 제시하고 있다. 琉球列島의 동전 사용이 博多에서 日宋무역의 상황과 아주 유사하다는 점을 확인하였고 무역이 번성한 지역에 대형 동전이 유통한 점을 博多, 琉球, 對馬에서 검증한 점은 중요하다. 12세기 이후의 동아시아 무역권에서 중국 전제국가의 국가적 신용과는 무관하게 시장원리에 의거하여 화폐체계가 확립하고 琉球의 화폐도 이러한 가운데 등장한 것을 지적하였다.

新里는「할석제 石鍋의 기초적 연구」에서 九州·沖繩 지방에서 출토지 888곳을 집성하여 출토 일람표와 상세한 분포도를 제시하여 금후의 石鍋 연구에 새로운 기초 자료를 제공하였다. 新里는 石鍋과 11세기에서 3세기의 琉球전역에서 소비되었다는 사실, 石鍋의 등장한 琉球列島에 石鍋 모방토기가 등장한 점, 이 시기를 경계로 沖繩諸島에서는 패총시대가 先島諸島에서는 무토기시대가 각각 끝나고 양 지역에 농경사회가 성립하였다는 점에 주목하여 石鍋가 시대변화의 지표로서 중요한 의미를 가진 점을 강조한다. 또한 石鍋를 고식의 손잡이달린 石鍋와 뒤에 신식의 전이달린 石鍋로 크게 나누어 각각의 분포를 비교하여 琉球列島의 石鍋는 博多 등 북부 九州에서의 직접 반입되었을 가능성이 높다는 점, 沖繩諸島의 石鍋모방토기는 성립에서 소멸에 이르기까지 손잡이달린 石鍋를 모방하고 전이달린 石鍋의 영향을 받지 않았다는 점을 지적한다. 후자에 보여지는 선택성이 무엇에 기인하고 있는 것인가에 대해서「솥이 부뚜막과 밀접하게 관련된 점인 것에 반해 냄비는 爐에 관련된 그릇이라는 朝岡康二의 지적을 인용하여 그 원인이 조리시설의 형태와 관련한 것으로 예측하고 있다.

3. 공동연구를 마치며

일련의 공동연구를 통해서 식물유체, 패류유체, 척추동물유체에 의한 각각의 분석 결과가 환경복원과 생업복원에 어느 정도 성공한 점, 이 성과에 고고학반이 자극되어 시점을 넓히고, 발굴방법을 연구 하는 등 학문적 진전을 확인한 점은 성과였다고 생각한다. 또한 해마다의 연구회에서는 분야를 넘어서 서로 얻은 것이 있었다. 이러한 동물학, 인류학과 고고학의 공동연구가 조사와 논의에 결실을 가져온 점은 유쾌한 체험이었다.

발굴조사를 계속 중인 나가라바루東패총에 대해서는 시기 비정을 둘러싸고 6세기 전후로 보는 견해와 8세기 이후로 보는 견해가 나왔으며, 이것은 한편으로 패총시대 후기 편년의 문제점을 그대로 반영하고 있다. 편년에 관해서는 沖繩후기토기연구회 여러 분의 교시를 얻어 문제점을 정리하고, 계속하여 널리 논의하여 나아가고자 한다. 또한 甲元이 설명하였듯 종자 그 자체의 연대측정도 금후 빼놓을 수 없다.

나가라바루東패총에서 탄화 벼, 보리의 검출에 성공한 점은 반가운 것이었으나 이것과 국가형성을 논하는 것 사이에는 高宮廣土가 지적하였듯이 아직 상당한 거리가 있다. 한편 교역에 대해서는 국가형성과의 관련이 깊고, 동전, 활석제石鍋, 조개 교역과 함께 관련된 논의를 전개하여 왔으나 시기가 9세기 이후로 집

중하여, 생업에서 도출된 논의와의 사이에 간격이 생겨버렸다. 琉球의 국가형성이 농경과 교역의 양론에 의해 실현된 것으로 보면서도 양자를 충분히 융합시키지 못한 책임은 木下에 있다. 또 토양샘플의 분석에 미완료 부분이 있는 점과 조사방법 등에 앞으로 개선할 점이 남아있다. 발굴조사는 1회뿐인 실험임과 동시에 파괴라는 점을 가슴에 새기고, 발굴과 보고서 작성에는 최선을 다하고자 한다.

보고서는 자연과학분야뿐만 아니라, 고고학분야에 있어서도 자료성이 높은 것으로 된 점이 기쁘다. 각각의 논고에는 새로이 제기된 중요한 지적이 적지 않다.

공동연구자 및 新里亮人씨의 협력에 깊이 감사한다.

木下 尙子

(朴天秀 : 訳)

2002년 3월

ABSTRACTS

ABSTRACTS

A Summary of the Sites and the Ryukyu Islands in the 6-7 th Centuries

KINOSHITA Naoko

This archaeological research addresses the formation of the Ryukyu kingdom which was established in 1429 and has a unique history as an independent nation. I examine how the exchange of shells and the cultivation of cereals-which were necessary measures for the establishment of the Ryukyu kingdom—originated and developed during the Neolithic Age.

I instituted excavations at Nagarabaru Higashi shell mound on Ie Island 伊江島 Okinawa, and obtained results concerning cereal cultivation. We found remains from the late 6th century and analysis of the soil produced rice (*Oryza stativa L.*) and wheat (*Triticum aestivum L.*). These plants are the oldest discoveries of cultivated cereals from the Ryukyu Islands. However, the weeds that should be associated with agricultural fields were not found. Also, the results of phytolith analysis and the land mollusc remains did not show any signs of the existence of cultivated land. Therefore it is probable that these crops were not produced on Ie Island. At that time, the people on this island exchanged big marine snails, such as *Tricornis latissimus* (Linnaeus) and *Lithoconus littertus* (Linnaeus), with Kyushu and western Japan. This leads to the assumption that those cereals were imported for trade. It is possible that people only started to cultivate crops in the Ryukyus from after the late 6th century.

With regards to the exchange of goods, I focused on a Kaiyuan Tongbao coin of the Tang dynasty and the green snails, *Turbo* (Lunatica) *marmorata* (Linnaeus), which have been excavated mainly from the Ryukyu Islands after the 6th century. The results of my analysis indicated a high possibility that Ryukyu green snails were used for making mother-of-pearl in China from the 6th to the 9th century, and were also used in Japan for the same purpose from the 9th to the 12th century. After the 10th century, the Ryukyu Islands were included in the inter-regional market centered in Kyushu and western Japan and expanded their exchange market. I discuss this issue along with analyses of the trumpet shells, *Charonia tritonis* (Linnaeus), which were used as precious musical instruments in Buddhist rituals in East Asia and were in great demand in 10th -12th century China, Korea and Japan, and the talc bowls that were also much in demand at that time.

The Beginning of Agriculture in the Ryukyu Islands

KIMOTO Masayuki

In the Ryukyu Islands it is clear that cereal cultivation had begun by the Gusuku Period (12-15th centuries AD). In this paper, I examine the beginning of cereal cultivation based upon archaeological materials. Prior to the Gusuku period, the cereal remains obtained from three sites

(Nazakibaru, Yajagama and Nagarabaru-Higashi) are rice, wheat, barley and beans. All of these were discovered in a carbonized state, a condition that is often produced by the process of threshing. These cereals thus tell us that cultivation had already began at the end of the first millennium in the Ryukyu Islands. In addition, these cereals are thought to be derived from dry field cultivation and it is very important that this type of cultivation was connected directly with that of the Ryukyu Dynasty.

Molluscan Remains and the Natural Environment and Lifestyles in Amami and Okinawa, AD 500-800

KUROZUMI Taiji :

Analyses such as species composition and abundance and size of some species of marine molluscan remains excavated from shell middens of the 6th to 8th centuries in the central Ryukyus showed that (1) coral reef species were most dominant, and (2) large- and small-sized molluscs were used in a different manner. Large species might have been utilized for their meat, small species for "soup". Cultivation seems not to have existed in this region at that time because (1) open land dwelling snails associated with dry fields were very rare or absent, and (2) the fresh water snail *Chipangopaludina chinensis laeta* which inhabits paddy fields was not found. In the Gusuku era, on the other hand, species dwelling in inland sea and estuary areas dominated the edible marine molluscan remains. The change in mollusc composition must have therefore occurred by at least the 12th century.

Vertebrate Faunal Assemblages and Environment and Lifestyles in Amami and Okinawa

TOIZUMI Takeji

Palaeoenvironment and resource use in the prehistoric Amami and Okinawa islands were investigated based on archaeofossils of vertebrate fauna. Evidence of forest animals such as wild boars and tortoises shows that the islands were covered with evergreen broadleaf forests in the Shell Midden period (ca. 5000 BC-AD 1100) but clearance started in the Gusuku period (12th - 15th centuries) and spread rapidly thereafter. Most of the fish found in the archaeofauna live in and around coral reefs and are the same as present, demonstrating that the maritime environment of the islands has been constant from the Shell Midden period to the present. Fishing of coral reef fish and wild boar hunting had been consistently predominant through the Shell Midden period except at Noguni shell midden, the oldest Holocene site of the Ryukyu Islands, where fishing is almost absent. The introduction of pigs and cattle into the Ryukyus possibly dates back to the Shell Midden period but, if anything, they seem to have been minor subsistence elements at that time. In the Gusuku period, the breeding of domesticated animals flourished, while fishing and hunting declined. These changes in land environment and vertebrate resource use in the Gusuku period are presumed to have been provoked by the development of agriculture including rice cultivation.

Plant Remains and the Beginnings of Agriculture in Amami and Okinawa
TAKAMIYA Hiroto

The Central Ryukyu region was successfully colonized by hunter-gatherers for the first time between the later part of the Middle Jomon and the Late Jomon period. By the 15th century AD, a state society whose subsistence was based on food production had emerged. Probably the most important factor which contributed to the formation of sociopolitical complexity in this region was an agriculturally-based subsistence economy. This paper first reviews existing hypotheses regarding the beginning of food production in the Central Ryukyu region. Then, it examines those hypotheses against the direct data from macro plant remains. The results reject all previously proposed hypotheses and suggest that agriculture in this region started between about the 9th and 10th centuries AD. Finally, this paper examines the best hypothesis that adequately explains the emergence of food production in this region. The available data do not seem to support Hayden's competitive feasting hypothesis. On the other hand, it is suggested that population pressure and/or migration hypotheses might adequately account for the transition from a foraging to a farming economy.

Changes and Special Features in House Form in the Okinawa Islands
SUGII Takeshi

The author examines temporal changes in residential structures and hearths in the Okinawa Islands from the Neolithic (Shellmound) to the early modern periods. It has become clear that a structural change took place between the Shellmound and Gusuku periods around the 12th century A.D. This change is marked by the appearance of rectangular, post-hole type houses which replaced the tradition of semi-subterranean houses. On the other hand, open hearths remained for cooking until the modern period; i.e., the earthen stove (oven) that characterized mainland Japan did not appear. The author's study shows that the manner of habitation in the Okinawa Islands was hardly influenced by the customs of mainland Japan. This strengthens a well-accepted notion that the Okinawa Islands followed a path of social evolution that was markedly different from the mainland.

State Formation and the Shell Trade: The Green-snail Trade and the Formation of the Ryukyu Kingdom in the 9th-13th Centuries
KINOSHITA Naoko

It is said that one of the most remarkable characteristics of the history of the Ryukyus is that the Ryukyu people seem to have established their own kingdom in a very short time after the end of the long Neolithic age in the 12th century. Afterwards the kingdom succeeded in trading with Japan, China and other Southeast Asian countries. In this paper I focus on the period of 400 years from the last part of the Neolithic age to the very beginning of the Ryukyu kingdom and analyze the formation process of that kingdom. I pay attention to the shell-inlaid lacquerware that was the most

important trading artifact of Japan to China and Korea at that time. The green-snail was the only shell suitable for lacquerware and it is sure that many merchants went south to the Ryukyu Islands to obtain the green-snail because that shell only lives in the coral sea areas of the Ryukyus. Through the green-shell trade, the people of the Ryukyus not only received imported Chinese wares, talc bowls and porcelain and other high-fired ceramics which merchants brought for them, but also must have learned many new kinds of information and techniques from the merchants. As a result they began to cultivate rice and wheat in the 9-10th centuries, made new style pottery suitable for cooking cereals in the 11th century, and started to make iron implements and to trade with other countries by themselves in the 13th century. So it is possible to suggest that the green-snail trade played an important part in the formation of the Ryukyu kingdom in 9th -13th centuries.

Excavated Coins and Trade in the Ryukyu Islands

OBATA Hiroki

Generally the Gusuku period is considered as an epochal time in Ryukyu history symbolized by the appearance of agriculture, the popularization of iron tools and the activation of international trade. However, it is difficult to understand the real nature of trade with the usual archaeological materials such as ceramics, iron and plant remains. Accordingly, the purpose of this paper is to make clear the nature and role of trade in the appearance of the Gusuku period with an analysis of excavated coins from sites from ancient to medieval times.

We collected 144 sites with copper coins. The total number of coins is 6619. Based on this data, and taking into consideration the trends in imported Chinese ceramics in archaeological contexts and the records in the historical documents, we divided the time from the Gusuku period to the Ryukyu Dynasty into 3 phases as follows. Phase 1 (11th-first half of 12th century): Coins not used or else only to a very limited extent. (The beginning of private trade by Ryukyu chiefs); Phase 2 (second half of 12th - first half of 14th century): The appearance of foreign coins. (Private trade by the Aji); and Phase 3 (second half of 14th-16th century): Expansion of coin use. (Intermediary tribute trade). Unfortunately, because of the small number of coins with known scraping dates, detailed changes in the quantity of coins are uncertain. The characteristics of the assemblages of coins and Chinese ceramics, however, show a faint resemblance, especially in large copper coins, between the assemblage of the Hakata trade with the Northern Song Dynasty and the one in the medieval Ryukyus from the 14th to 15th centuries. Thus the coins might have been mainly used for trade.

A Basic Study of Talc Bowls

SHINZATO Akito

Talc bowls made at Oseto Town, Nagasaki Prefecture are a distinctive artifact typical of medieval Japan and distributed from northern Honshu to the southern Ryukyu Islands. Talc bowls had a strong effect upon the shape of native pottery and talc-imitation-pottery was produced all over the Ryukyu Islands. Based upon a corpus of talc bowls in the Kyusyu-Okinawa region, I discuss the

specific character of the Ryukyu Islands. The old type of talc bowl is distributed in Northern Kyushu and Ryukyu Islands exclusively and talc-imitation-pottery shows a similar trend. This old type of talc bowl was used in dugout hearths. Therefore, the difference of talc bowl shape reflects the type of hearth and the tradition of imitation may have been restricted by the type of hearth.