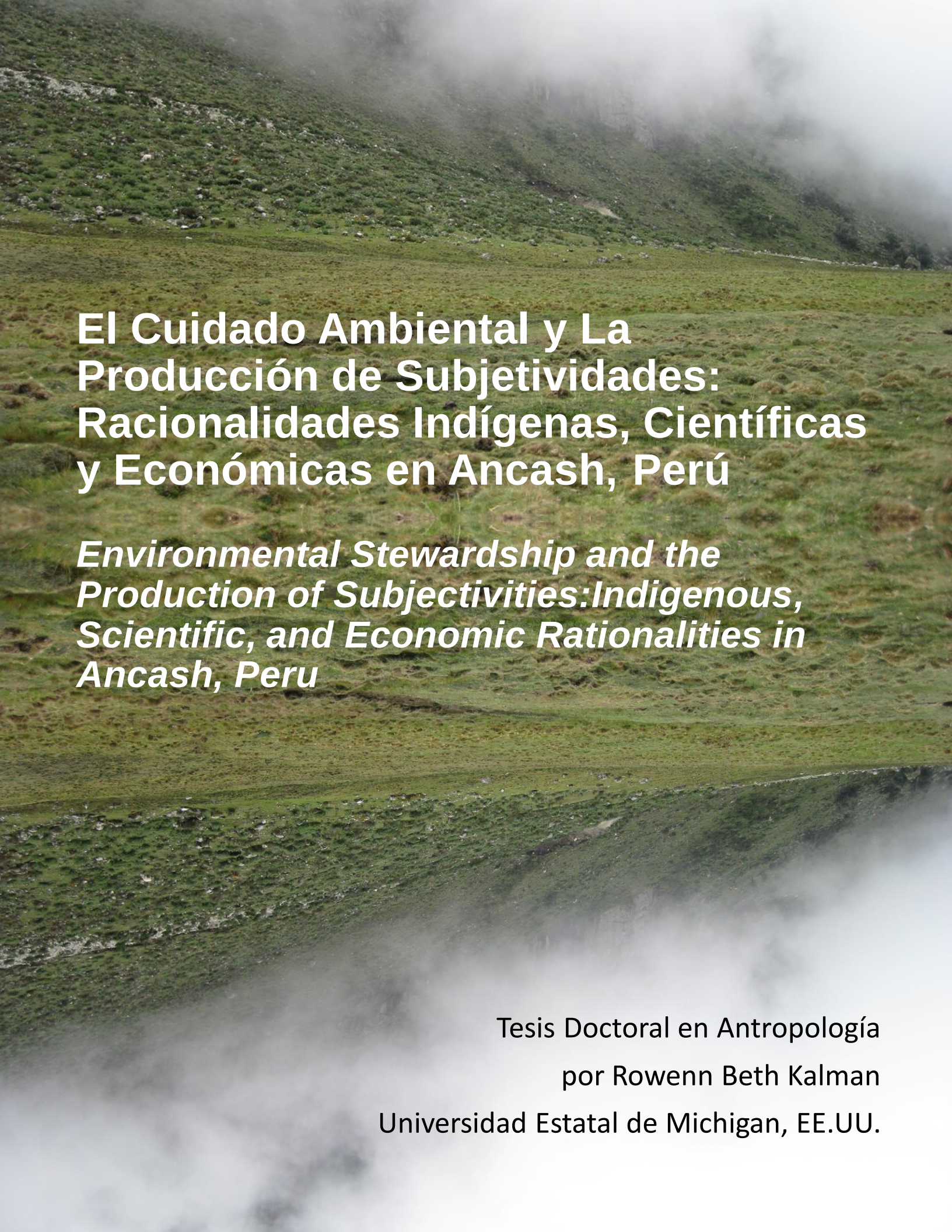

El Cuidado Ambiental y La Producción de Subjetividades: Racionalidades Indígenas, Científicas y Económicas en Ancash, Perú

Environmental Stewardship and the Production of Subjectivities:Indigenous, Scientific, and Economic Rationalities in Ancash, Peru

Tesis Doctoral en Antropología

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Un resumen en español de:

El Cuidado Ambiental y La Producción de Subjetividades: Racionalidades Indígenas, Científicas y Económicas en Ancash, Perú

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Resumen:

En la región de Ancash, Perú, los agricultores rurales, el personal de las ONG, los trabajadores estatales y los ingenieros de minas argumentan que la conciencia ambiental es crucial para proteger los recursos naturales de la contaminación y el uso excesivo. Sin embargo, se basan en diferentes razones: una cosmovisión indígena, pensamiento científico y el cálculo económico para definir qué constituye una conservación efectiva y quién tiene autoridad sobre la naturaleza. Las ONGs han capacitados a algunos agricultores rurales para que sean "promotores ambientales" que monitorean la contaminación y coordinan entre las empresas mineras, las autoridades estatales y sus aldeanos. También buscan fortalecer una vista ancestral (andina) de la naturaleza. Esta tesis argumenta que la capacitación de los promotores refleja un intento de crear “sujetos ambientales” que serán aquellos que consideran que es necesario cuidar la naturaleza para garantizar la conservación de recursos (Agrawal 2005), pero los sujetos al estar situados de maneras diferentes deciden proteger la naturaleza por diferentes motivos. A través de la administración comunitaria, los promotores y otros actores se basan en los múltiples discursos de conciencia ambiental (indígena, científica y económica) para disputar la autoridad del sector privado (sancionada por el estado), articulando sus

propias ideas de la gestión ambiental. Este argumento se aparta de los análisis previos sobre descentralización y gobernanza que sugieren que las iniciativas de administración ambiental comunitaria (por ejemplo, monitoreo local del agua o de los bosques) llevan a los usuarios de recursos rurales a un cumplimiento más profundo, bajo una lógica común, y sancionada por el estado. Además, no se han considerado cómo otras dimensiones de la subjetividad (por ejemplo, género o una identidad étnica) se involucran y reconstruyen a través de procesos que cultivan temas ambientales. En Ancash, los actores replantean sus identidades continuamente con respecto a sus experiencias, relacionadas a género, origen étnico, experiencia científica e incentivos económicos según sus propias prioridades. Algunos usuarios de recursos rurales (incluidas las mujeres indígenas rurales) han participado menos en los debates sobre la administración de recursos en su comunidad, pero son simbólicamente centrales para la cosmovisión indígena de la misma (por la importancia de Pachamama). Al analizar el contexto de los discursos en competencia, y las subjetividades multifacéticas involucradas en la administración ambiental, esta tesis avanza un nuevo enfoque académico hacia la subjetividad y la gobernanza ambiental que explica cómo y por qué los participantes en proyectos ambientales participan de maneras diversas, estratégicas, y en ocasiones ambivalentes en la protección del medio ambiente.

Capítulo 1 (pp. 1-37)

La "subjetividad ambiental" se refiere a aquellos que se preocupan por el medio ambiente y realizan conscientemente algunas de sus acciones en relación con él. Pero hay muchas razones diferentes para cuidar la naturaleza. En esta disertación, exploro estas variaciones comparando cómo los actores en diferentes posiciones sociales entienden cómo debería ser cuidar la naturaleza. Hago las preguntas: ¿Qué diferentes razones pueden encontrarse entre los diversos actores que están de acuerdo en que proteger la naturaleza es una idea que vale la pena? ¿Cuáles son las razones de las diferencias entre sus ideas y qué impacto tienen sobre cómo se negocia la gobernanza ambiental?

Durante mi investigación en Ancash, Perú, observé que el concepto de conciencia exhibe huellas paralelas al concepto de subjetividad ambiental, pero los dos no son lo mismo. La subjetividad ambiental es una categoría utilizada por los investigadores que identifican qué actores la tienen y cuáles no. La conciencia, por otro lado, es un término popular en constante negociación. Las personas que usan el término conciencia pueden significar cosas diferentes y pueden estar en desacuerdo sobre quién la tiene y quién no. Además, pueden expresar su

propia conciencia de manera diferente, incluso si están de acuerdo en algunos conjuntos de acciones o prioridades. La conciencia, por lo tanto, revela un lado poco estudiado de la subjetividad ambiental: los sujetos tienen diferentes intereses, perspectivas e identidades. Esto los motiva a proteger la naturaleza, o no, de diferentes maneras. En ocasiones, sus diferencias pueden ocultarse o minimizarse, lo que permite forjar alianzas temporales en torno a un interés común. Pero, las diferencias también pueden alimentar conflictos y desacuerdos.

Esta investigación se basa en 18 meses de investigación etnográfica en Ancash, Perú, para interrogar estas diferencias y sacarlas a la luz a través de un análisis de conciencia. En la década de 2000, las ONG capacitaron a los campesinos para ser promotores ambientales: individuos que prueban el agua y se involucran en contextos interinstitucionales, con la esperanza de proteger mejor los recursos ante la contaminación y el uso excesivo. Durante los siguientes diez años, la ONG Urpi capacitó a promotores en Ancash, Perú, y los ayudó a formar comités ambientales. Los comités se coordinaron con las autoridades locales, los aldeanos, las agencias estatales, las ONG y las minas cercanas para aumentar la vigilancia de los recursos. Estas personas frecuentemente utilizaron el término conciencia para hablar sobre muchos aspectos diferentes de la preocupación ambiental. Esta disertación toma la idea de conciencia como un punto de entrada para analizar las diversas y contenciosas luchas en torno a la protección de los recursos, la explotación y la contaminación ambiental. Presto atención especial a la manera en que la subjetividad ambiental interactúa con otros aspectos de la subjetividad, como el género e indigenismo. Uso teoría política para dibujar un análisis en teoría ecológica política que analiza género e indigenismo como procesos. No veo estas identidades como categorías estáticas a las que pertenece la gente, sino más bien ideas maleables que se reconstruyen con los roles, capacidades, y conocimiento que las personas tienen de su medio ambiente y de sus relaciones entre sí. Los actores son sujetos multifacéticos cuya relación con los proyectos ambientales transforman sus otras identidades y viceversa.

En mi análisis, identifiqué tres discursos que generan ideas distintas sobre la conciencia. Un "discurso" es un conjunto de ideas y conocimientos que da forma al pensamiento de la gente sobre el mundo. Los discursos gobiernan la forma en que se puede hablar y razonar de manera significativa sobre un tema, y cómo se ponen en práctica estas ideas. A los tres discursos los llamo la Ciencia Técnica, la Cosmovisión Andina, y el Racionalismo Económico. Cada uno de estos se implementa en ciertos contextos y cada uno postula una teoría sobre qué

es el entorno, en qué condiciones debe protegerse, cuáles son las amenazas para él y quién está mejor posicionado para protegerlo y cómo.

1. **Ciencia Técnica:** la ciencia es la forma autorizada de conocer el medio ambiente. Desde este punto de vista, la naturaleza es un objeto que se puede estudiar y conocer, y luego actuar sobre ella de manera informada para maximizar la salud de los ecosistemas y los sistemas hídricos. Los defensores de esta visión consideran que el conocimiento científico produce conocimiento universalmente aplicable. Tienden a verlo como imparcial y objetivo, y quieren que otros actores también lo vean de esta manera. Finalmente, la ciencia técnica requiere expertos que hayan recibido la capacitación adecuada y estén en posición de evaluar los problemas ambientales desde esta perspectiva.

2. **Cosmovisión Andina**: Según la ONG Urpichallay, la visión cultural andina ve a la naturaleza como una realidad física y como una entidad espiritual y de género. Los recursos como el agua son vistos como seres vivos. La clave de esta cosmovisión cultural es la idea de que la naturaleza debe ser tratada con respeto y reciprocidad. Según Urpichallay, esto incluye prácticas como hacer ofrendas a la Pachamama y no arrojar basura en los ríos. Por lo tanto, la cosmovisión andina lleva a una conciencia de un tipo particular: una conciencia basada en una cosmovisión indígena en la que la naturaleza está viva, antropomorfizada y protegida por las personas a través de relaciones de crianza. En esta versión de conciencia, las prácticas indígenas están en línea con el ecologismo y se entiende que provienen de una comprensión filosófica indígena de la naturaleza.

3. Racionalismo Económico: las personas están motivadas hacia ciertos comportamientos a través del cálculo de los riesgos y beneficios para ellos mismos. El racionalismo económico posiciona a la naturaleza como un recurso que tiene valor, o valor potencial, en una economía de mercado. Los actores que adoptan este punto de vista no consideran que el racionalismo económico produzca conciencia de forma automática, sino que les es útil para ayudar a las personas a "darse cuenta" del verdadero valor de la naturaleza. Si las condiciones se establecen de tal manera que las personas vean la protección de la naturaleza como lo mejor para sus intereses, el racionalismo económico permitirá comportamientos conservacionistas. Los que tienen conciencia son, por lo tanto, los que reconocen que la naturaleza "vale" más cuando se deja prístina, o cuando su uso se maneja de manera sostenible. Las personas que actúan basándose en sus intereses a corto plazo y favoreciendo la sobreexplotación carecen de conciencia porque han calculado mal.

Cada discurso ofrece una idea diferente de lo que es un sujeto ambiental. Cada uno también se basa en actores situados que lo promueven o se identifican con él. Estos tres discursos a veces compiten, pero a veces también coinciden entre sí. En ocasiones, también se ocultan bajo la idea de "conciencia" más generalmente aceptada. Al observar cómo la conciencia es utilizada por los actores en el terreno que afirman tenerla, mientras que otros no, mi objetivo es contribuir con una teoría más compleja de la subjetividad ambiental que explique las subjetividades más amplias y multifacéticas en la gente.

Capítulo 2 (pp. 38-93)

Este capítulo es una descripción completa de los sitios donde realicé investigaciones y los métodos que utilicé para realizarla. Brindo antecedentes sobre la economía política y la ecología de Ancash y el papel de la minería, y el contexto dentro del cual los promotores de capacitación para ser administradores ambientales se vieron como una buena solución ante los problemas ambientales. Se describe el rol de la ONG Urpichallay en la capacitación y facilitación, y proporciono una introducción a Vicos, la comunidad campesina donde pasé 12 meses viviendo y observando los esfuerzos de administración ambiental y entrevistando a los Vicosinos sobre sus pensamientos sobre el medio ambiente. En este capítulo se explica cómo mi propia identidad como investigador norteamericano ha configurado las relaciones de investigación y la recopilación de datos. También explico cómo las conexiones personales que hice con los Vicosinos dieron forma a la investigación y también la hicieron posible. También describo mi relación con Urpichallay y las otras instituciones que contacté, describiendo por qué elegí enfocarme en estas instituciones particulares para abordar mis preguntas de investigación.

Capítulo 3 (pp. 94-131)

Este capítulo cubre los antecedentes de los comités ambientales y describe qué son los “promotores ambientales” y por qué Urpichallay busca capacitar a los promotores y ayudarlos a formar comités ambientales. Este capítulo también es un estudio etnográfico de los talleres de capacitación de Urpichallay, donde los promotores aprenden perspectivas gubernamentales, culturales, y científicas sobre monitoreo y gestión ambiental. Me concentro en cómo los capacitadores y los participantes interactúan a través de la estructura participativa de los talleres. A partir de las observaciones tomadas durante los talleres, los archivos de los materiales del taller, ya las entrevistas con los participantes, analizo las actividades que llevan a

los participantes a pensar de manera diferente sobre la naturaleza, los recursos, y la protección. Los talleres alientan a los participantes a aceptar un cierto tipo de autoridad: científica y de gobierno racional (aunque no necesariamente de las agencias gubernamentales peruanas mismas). Los talleres también enseñan que la naturaleza es algo que se puede ver a través de diferentes lentes "culturales". Todos estos aspectos de la capacitación proporcionan nuevas formas de enmarcar los problemas ambientales que perciben. A medida que participan en este proceso, los participantes a veces omiten detalles que complicarían su narrativa sobre los problemas ambientales, eligiendo otras explicaciones disponibles. Los promotores lidian con estas ideas durante los talleres y, a veces, tienen problemas para reconciliar los nuevos conceptos discursivos con las situaciones reales de la comunidad. Sostengo que los talleres ejemplifican una tecnología de gobierno, pero solo adoctrinan parcialmente a los participantes en nuevas formas de pensamiento sobre la naturaleza.

Capítulo 4 (pp. 132-209)

Este capítulo se centra en el discurso de la cosmovisión andina. Describo el marco que brinda Urpichallay de la cosmovisión andina. Urpichallay enseña a los promotores que las diferencias en la forma en que las personas ven su entorno están vinculadas a las diferencias culturales. La caracterización de Urpi de la cosmovisión andina lo pone en contraste con la cultura occidental (asociada a la ciencia). Profundizo en las maneras en que la visión de Urpichallay resuena con los campesinos reales con los que trabajan, y también en la forma en que no lo hace. Utilizando el ejemplo de Vicos, una comunidad con la que Urpichallay ha trabajado estrechamente durante más de 10 años, describo cómo algunas personas abrazan estas descripciones de la cultura andina mientras que, en general, otras en la comunidad no (o interpretan los conceptos culturales de manera diferente a la que son presentados por Urpichallay). En resumen, los miembros de Vicos idealizan su propia cultura de diversas maneras, y no todas coinciden con las descripciones de Urpichallay. En segundo lugar, las mujeres no han accedido a nuevas formas de conciencia indígena en la misma medida que los hombres, a pesar de que son simbólicamente importantes debido a su conexión con la Pachamama. Debido a las diferencias en la forma en que la cultura andina es representada por Urpichallay, las variadas formas en que los Vicosinos expresan su propia idea de su cultura y la forma en que otros (estado / otros miembros de las ONG) interpretan esto, hay algunas repercusiones negativas para Vicos. Algunos funcionarios consideran que los Vicosinos tienen una cultura degradada y un medio ambiente degradado (del que también se les culpa). Este es

un efecto imprevisto de lo que se intentaba que sea un discurso de conciencia que empoderaría a la población andina.

Capítulo 5 (pp. 210-257)

Este capítulo se centra en el discurso de la ciencia técnica. Describo las interacciones entre promotores capacitados, sus comités de vigilancia, aldeanos y municipios, minas y agencias estatales. Las agencias estatales, la mayoría de las ONG y las minas también utilizan la ciencia para documentar y explicar los problemas ambientales y orientar las soluciones. La ciencia también se usa en estos contextos como un discurso autoritario de los ingenieros de minas que parecen usarlo para el aislamiento político de la mina y al mismo tiempo afirmar preocuparse por el medio ambiente. Muchos campesinos desean entender mejor la ciencia, pero al mismo tiempo desconfían de las explicaciones científicas basadas en quién los ofrece. Los promotores intentan cerrar esta brecha. Pero los promotores también afirman la importancia de las formas experienciales de evaluar la naturaleza como un tipo separado de reclamo autoritario. Estos conflictos se centran en la idea de contaminación y los problemas que la rodean. Quienes ejercen la autoridad más científica se posicionan como capaces de definir la contaminación. Muchos campesinos usan la palabra contaminación como sinónimo de "impactos" como una forma de afirmar su propia insatisfacción con el estado de su paisaje y sus recursos. Sin embargo, sus puntos de vista a veces son rechazados como meras "percepciones" por los funcionarios de la mina.

Capítulo 6 (258-311)

Este capítulo se centra en el tercer discurso, el racionalismo económico. Analizo cómo los incentivos económicos influyeron en la toma de decisiones ambientales en Vicos y también cómo la idea de incentivos da forma a las interpretaciones y estrategias de quienes se dirigen a Vicos para mejorar la conciencia. Rastreo la historia de la administración ambiental y las intervenciones de las ONGs en Vicos, y cómo los promotores de Vicos, Urpichallay y el gobierno de la comunidad interactuaron a lo largo del tiempo a medida que estas relaciones evolucionaron. También considero cómo el gobierno de la comunidad de Vicos ha interactuado con las minas a lo largo de los años, respondiendo a poderosos incentivos económicos. De alguna manera, las negociaciones entre Vicos y las minas evolucionaron de tal forma que socavaron uno de los principales objetivos de la administración, que era aumentar los esfuerzos de los Vicosinos para proteger su medio ambiente. Los Vicosinos utilizan acusaciones

de daños ambientales al negociar con las minas, pero se centran en el desarrollo de la comunidad y los pagos en efectivo como resultado de estas negociaciones. Los Vicosinos también encontraron formas de beneficiarse de la minería ilegal. Esta complicidad es vista abrumadoramente por sus posibles aliados como "falta de conciencia". Pero de otras maneras, Vicos ha adoptado estrategias regulatorias sobre recursos que no existían en el pasado reciente, específicamente sobre el agua y los bosques, y que incluyen esfuerzos de control de la contaminación. Los Vicosinos no son todos “sujetos ambientales” de manera directa, pero sus estrategias de gobernanza de recursos naturales reflejan una nueva subjetividad interiorizada, por ejemplo, el uso de acuerdos institucionales de la comunidad para proteger la naturaleza como recursos. De esta manera, los Vicosinos no solo responden a incentivos en torno a la explotación y protección de recursos que provienen de fuera de la comunidad; también crean incentivos para los miembros de la comunidad (como multas por el mal uso del agua). Al hacerlo, configuran las subjetividades de los demás hacia una conciencia que a veces es conservacionista y también orientada a la comunidad.

Capítulo 7 (312-323)

Esta tesis ofrece un nuevo enfoque académico que analiza la subjetividad y la administración ambiental a través de la atención a un contexto más amplio de discursos en competencia e identidades multifacéticas. Los actores (tanto los capacitados, como promotores, como los no capacitados) utilizan y ponen en práctica diferentes "discursos del medio ambiente" al afirmar su autoridad sobre los recursos. Los actores intentan moldearse entre sí, y las relaciones entre humanos y el medio ambiente, de forma que les resulte ideológicamente sensata y prácticamente beneficiosa. Estos llevan a los administradores rurales a participar de maneras diversas y estratégicamente.

Esta disertación hace dos argumentos generales. El primer argumento es que la administración basada en la comunidad no produjo una sola lógica. Reunió múltiples lógicas y abrió nuevas posibilidades para la lucha por los recursos. Estas incluyeron nuevas formas de impugnar la autoridad estatal y minera, nuevas conceptualizaciones del yo como indígena andino y mecanismos en evolución para disciplinar a los aldeanos y las minas durante la toma de decisiones sobre los recursos de la comunidad.

Mi segundo argumento es que la posición social es importante para determinar quién se convierte en sujeto ambiental y cómo. Los administradores rurales se reubicaron continuamente de diferentes maneras con respecto al discurso ofrecido, reproduciendo

categorías de género e identidad indígena. En Vicos, las exclusiones de género existentes se multiplicaron, ya que solo los hombres fueron capacitados como promotores, pero con nuevos contenidos, incluidos conceptos como Pachamama y ciencia técnica. Además, como las mujeres dependen más del quechua, fueron más alejadas de los nuevos discursos. Esto transforma las subjetividades interrelacionadas de hombres y mujeres y las divisiones del conocimiento en el hogar. Esto demuestra que el género y la identidad indígena son emergentes a través de acuerdos de administración ambiental.

ENVIRONMENTAL STEWARDSHIP AND THE PRODUCTION OF SUBJECTIVITIES: INDIGENOUS, SCIENTIFIC, AND ECONOMIC RATIONALITIES IN ANCASH, PERU

By

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ABSTRACT

ENVIRONMENTAL STEWARDSHIP AND THE PRODUCTION OF SUBJECTIVITIES: INDIGENOUS, SCIENTIFIC, AND ECONOMIC RATIONALITIES IN ANCASH, PERU

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In the region of Ancash, Peru, rural farmers, NGO staff, state workers, and mine engineers all argue that environmental conciencia (consciousness) is crucial for protecting natural resources from pollution and overuse. However, they draw on different rationales of indigeneity, science, and economics to define what constitutes effective conservation and who has authority over nature. NGOs train rural farmers to be "environmental promoters" who monitor pollution and embrace ancestral (indigenous Andean) views of nature as they coordinate among mine companies, state authorities, and their fellow villagers. This dissertation argues that promoter training reflects an attempt to create environmental subjects—those who view the stewardship of nature as necessary for resource preservation (Agrawal 2005)—but that differently situated subjects decide to protect nature for different reasons. Through community-based stewardship, promoters and other actors draw from the multiple discourses of conciencia (indigenous, scientific, and economic) to dispute both state-sanctioned and private sector authority, articulating competing ideas of environmental management. This argument departs from previous analyses of decentralization and environmental governance that suggest community stewardship initiatives lead marginal resource users into deeper compliance with a singular, state-sanctioned logic. Further, existing scholarship on environmental subjectivity does not consider how other dimensions of subjectivity are engaged and reconstructed through processes cultivating environmental subjects. In Ancash, actors continuously re-situate

themselves in different ways with respect to gender, ethnicity, scientific expertise, and economic incentives according to their own priorities. Some resource users (including rural indigenous women) have been less able to participate in debates over stewardship, but are symbolically central to indigenous constructions of it. In analyzing the context of competing discourses and multifaceted subjectivities involved in environmental stewardship, this dissertation advances a new scholarly approach to subjectivity and environmental governance that illuminates inequalities and explains how and why rural stewards participate in diverse, strategic, and sometimes ambivalent ways.

For my parents,
Luis,
and Aisley

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PREFACE

A Note on Translation and Representation:

The arguments in this dissertation rely on the analysis of recorded and unrecorded speech as well as written texts drawn from a variety of contexts. In many cases words have been translated through Quechua, Spanish, and English. I worked with two bilingual (Spanish and Quechua) translators in Peru to ensure the authenticity of Quechua translations. Spanish to English translations are my own. When possible, I included quotes in their original language in the body of the text or as footnotes. In some cases, I included only specific words or phrases of the original language to clarify meaning.

Words jotted down during meetings and unrecorded conversations were essential to my data collection. However, because I cannot guarantee that these jottings were verbatim, I have chosen to represent them in single quotations, ‘like this,’ while verbatim quotes from written texts and transcribed interviews or conversations are represented as standard quotes, “like this.”

All names have been changed.

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KEY TO ABBREVIATIONS

ALA	Autoridad Local del Agua (Local Water Authority, Ancash)
ANA	Autoridad Nacional del Agua (National Water Authority)
APS	Agua Para Siempre (Water Forever)
CODISPAS	La Comisión Diocesana de Servicio Pastoral Social (The Diocesan Commission for Social Pastoral Service)
CONAM	Consejo Nacional del Ambiente (National Environmental Council)
DESA	Dirección Ejecutiva de Salud Ambiental (Regional Executive Office of Environmental Health)
DREM	Dirección Regional de Energía y Minas (Regional Office of Energy and Mining)
GRNYGMA	Gerencia de Recursos Naturales y Gestion del Medio Ambiente (Regional Office of Natural Resource and Environmental Management)
IFFS	Intendencia Forestal y de Fauna Silvestre (Office of Forestry and Wild Fauna)
INRENA	Instituto Nacional de Recursos Naturales (National Institute of Natural Resources)
MINAM	Ministerio del Ambiente (Ministry of the Environment, Peru)
MINEM	Ministerio de Energía y Minas (Ministry of Energy and Mining, Peru)
PNH	Parque Nacional Huascarán (Huascarán National Park)
RRCAA	Red Regional de Comités Ambientales de Ancash (The Regional Network of Environmental Committees of Ancash)
SERNANP	Servicio Nacional de Areas Naturales Protegidas por el Estado (National Service of Natural Areas Protected by the State, Peru)
TMI	The Mountain Institute
Urpi	Asociación Urpichallay (Association Urpichallay)

Chapter 1:
Conciencia and Environmental Governance

> *Un primer paso para el cuidado del paisaje es que exista* ***la conciencia*** *de parte de todos. Tener adecuados reglas para saber como deshacernos de la basura y no arrojarla a los ríos es una forma de que la población aprenda a proteger su paisaje. Que las empresas sean mineras u otras, cumplan las obligaciones que la ley exige y respete los compromisos con la comunidad. Que las autoridades de la zona cumplan sus funciones considerando que el ambiente es importante para la subsistencia de la población.*
>
> A first step in caring for the landscape is that there exists *conciencia* (awareness; conscience) among everyone. Having adequate rules for knowing how to get rid of trash and not throw it in the rivers is one way residents to learn to protect their landscape. That companies, mining or others, fulfill the obligations that the law demands and respect their commitments to the community. That the authorities of the zone comply with their functions, looking upon the environment as important for the subsistence of the population.
>
> From "*Como Cuidar Nuestra Paisaje* (How to Take Care of Our Landscape)" Pamphlet series "*Agua Para Siempre*" (Water Forever) by *Asociación Urpichallay*, written by Hugo, 2001. Emphasis mine.

In the summer of 2008, I sat in the office of a Peruvian NGO called *Asociación Urpichallay* (hereafter Urpichallay or Urpi), watching a video[1] taken during a meeting of rural farmers, or *campesinos*, discussing the problems they faced. The degradation of the environment was a topic that raised serious concerns for them, especially the pollution that affected the production of their crops. This concern was of no surprise, but what struck me was how the participants associated the environmental problems they saw with what they were calling *conciencia*: "Things are contaminated… because of our own [lack of] *conciencia* (conscience)." And, "We have to *tomar conciencia (*become aware) to plant

[1] Video "Voces Campesinas" from 2005. Produced by Urpichallay and The Mountain Institute.

organic." Improving conciencia was, per the participants at this meeting, a key element of solving the environmental and social problems that plagued their lives and livelihoods. By their own assessments, they needed better conciencia, but so did other institutions like state agencies and mine companies. They also associated the lack of conciencia with culture loss, which they explained as a loss of traditional practices and decrease in native varieties. The ability of conciencia to encompass so many different aspects of their environmental concerns was fascinating, but also familiar. I had heard similar arguments about the need for conciencia from the state officials that these campesinos saw as part of the problem.

This dissertation takes the idea of conciencia in relation to environmental concerns as an entry point into the diverse and contentious struggles around resource protection, exploitation, and environmental contamination in the Peruvian Andes. Within this context, campesinos and other citizens are taking on new roles monitoring resources (such as through water monitoring for pollution) and confronting both other resource users and the authority of state supervision. NGOs are also engaging in advocacy on behalf of these citizens, while promoting their own ideas of what is important about conciencia (the importance of preserving Andean culture). My dissertation research traces interactions among these groups to better understand the complex outcomes of community-based environmental governance initiatives and the broader power relationships they enable. More so, I investigate how these aspects become entangled with different ideas of culture and with gendered and indigenous identities.

In 2000, Urpi began to train select individuals in one campesino community to be environmental stewards who would test water resources for potential contamination and negotiate with nearby mines. Over the years, Urpi trained promoters in other communities

as well. With the NGO's help, these stewards, called environmental promoters (*promotores ambientales*), began forming environmental committees with the purpose of coordinating with local authorities, state agencies, other NGOs, and nearby mines to increase vigilance over the well-being of resources from a community-centered set of concerns. In 2008, Urpi-trained promoters and other similar vigilance committees from elsewhere in Ancash, Peru, formed a network organization (*La Red Regional de Comites Ambientales de Ancash,* or RRCAA) to further increase the presence of rural and resource-dependent citizens in vigilance over the environment.

The attempts to shape the governance of resources by engaging civil society and rural communities reflects a global trend towards community-based resource management of resources. Scholars who study this trend have argued that community-based programs end up being tools for shaping the will of villagers into compliance with state-sanctioned forms of environmental control, and can undermine local institutions and priorities (Agrawal 2005; Bryant 2002; Li 2007; Neumann 2001; Schroeder 2005). The various institutions that engage with stewardship committees in Peru also hope to shape the views and practices of rural residents, teaching them to be vigilant over resources in ways that match their own ideas of environmental protection. However, the interests of mines, state agencies, and NGO groups represent different agendas and do not reflect a single state-sanctioned set of ideals. And, rural participants do not easily align themselves with the priorities of these institutions due to distrust and their competing resource needs, even if they take advantage of opportunities to work with them.

Across these contexts where NGOs, villagers, state, and industry agents interact, the idea of *conciencia* is often deployed. Conciencia is a Spanish word that means 'awareness' or

'conscience' and it has a history of use in Latin America linked to social movements more broadly (see, for example, Freire 1970). While conciencia can apply to more than just concern with the environment, actors in my research use this term to express an idea of what in English could be called environmental consciousness: an awareness that nature should be protected with a personal commitment towards that end. The actors I describe in Peru agree that people in general need to have conciencia for the environment to be protected, but these actors do not agree on what conciencia for environmental protection means and tend to see each other as 'lacking' conciencia during conflicts over how resource should be used.

This dissertation describes and analyzes these contestations over environmental conciencia, adding complexity to our understandings of community-based environmental stewardship strategies and their outcomes through a nuanced view of how these processes shape people's views and actions in diverse and unpredictable ways. I describe how different discourses of the environment are deployed and put into practice by actors engaged in environmental stewardship as they assert authority over resources. In the process, they attempt to shape each other, and human-environmental relationships, in ways that they find ideologically sound and practically beneficial. At the heart of this dissertation is the role of the actors called environmental promoters—trained individuals who engage across inter-institutional contexts, as well as within their own communities, in the hopes of better protecting resources from contamination and overuse. Environmental promoters target others, and are targets themselves, for increased conciencia.

Neoliberal Environmental Governance

My case presents a context in which diverse actors (NGOs, citizen groups, mines) are drawn into new relationships where they take on regulatory roles over each other and nature while seeking to inspire their own views of environmental protection in each other. Scholars studying similar phenomena have linked these shifts in regulatory responsibility to the neoliberalization of environmental management (Castree 2007; Igoe and Brockington 2007). "Neoliberalization" in this usage refers to a bundle of policies and processes that states adopt (sometimes under pressure from international institutions) which facilitate the spread of free markets (Igoe and Brockington 2007). Among the hallmarks of neoliberalization are state deregulations of businesses, the environment, and social life, and reregulation of these same arenas in ways that enables more privatization and commoditization for capital accumulation (Castree 2007; Hayden 2003; Igoe and Brockington 2007; Mansfield 2007). These structural changes have ramifications for how environmental management is approached, and have decentralized state-led environmental regulation, increasing the privatization of environmental resource access, and leading to the proliferation of new actors, such as NGOs.

Community-based forms of environmental stewardship have become popular in this neoliberal context. Whether labeled "community-based natural resource management" (see Brosius, et al. 1998; Tsing 2005), or "integrated conservation with development" (Li 2007; West 2006), these projects generally have a localized scope, implementation strategies that encourage participation from resource users, and function with support from NGOs or conservation organizations. They often constitute an attempt to link local social justice issues with environmental protection agendas that coincide with state priorities. Community-based approaches emerged in response to popular protests against top-down state imposed

conservation, and the perceived failure of state enforcement. Community-based stewardship also gained popularity under neoliberal decentralization policies because advocates posited, sometimes erroneously, that local groups were well equipped and highly motivated to conserve—and thus made more efficient resource managers than state stewards (Brosius, et al. 1998).

From the standpoint of neoliberal policy, NGOs are argued to be more effective than state apparatus for serving society, because unlike the heavily bureaucratic and inefficient state structure, they are supposedly more innovative and responsive to grassroots efforts (Fisher 1997). However, NGOs are not straightforward replacements for state intervention, and are diverse in function. They may implement state policy, or conduct projects funded by international donors that conform to a different set of priorities. Some NGOs also challenge norms and provide advocacy through their work in ways that counter state hegemony (Keck and Sikkink 1998; Mitlin, et al. 2007). In my case, Urpi is an NGO that receives international funding to encourage community-based stewardship and, like many NGOs around the world, embraces new participatory strategies in working with villages. They wished to 'help' communities assemble their own resource management plans where authorship and responsibility would rest with the community. In the process and in the years since, stewardship[2] (like conciencia), however, became a question that had to be continuously worked on and redefined by the various actors involved.

[2] By stewardship, I refer primarily the specific acts that allow people to regulate and manage resources: the measuring, documenting, testing, monitoring, migitating and record-keeping of resources (water, forest, soil) and sanctioning and patrolling where applicable. However, in Urpichallay's formulation, other kinds of acts can be labeled stewardship: rituals, ancestral farming practices, and other land and resource use strategies that reduce human impacts or encourage the regeneration of nature, even if these are not done explicitly for this purpose. The meaning of stewardship is part of what is contested.

This dissertation argues that outcomes in community-based resource management are more complex than simply aligning communities with state agendas. When multiple diverse actors interact, they draw on competing discourses and logics in attempts to transform each other into the kind of actors each believes necessary for the success of resource management, and with varied levels of success. This dissertation answers a set of questions probing these interactions: What different rationales can be found among the various participants who agree that protecting nature is a worthwhile idea? What are the reasons for these differences, and what impact do they have on how environmental governance is negotiated?

Governmentality and Environmentality

The starting point for this inquiry is Foucault's concept of governmentality. For Foucault, government[3] entails arrangements of people, space, and relationships such that populations are controlled by sometimes subtle mechanisms that guide individual people are towards choices and behaviors (Foucault 2007). This understanding of government is distinct from the forms of state power where law and coercion are the primary mechanisms for exerting control. Foucault argues that in order to understand power and control in society, we must look at mechanisms that win the consent of citizens towards new ways of thinking and acting. This kind of government is achieved through the "right disposition of things," where the "things" are people and their relations with each other, as well as with resources and means of subsistence, territories, customs and habits, ways of thinking, and even accidents and misfortunes (Foucault 1991; Foucault 2008;

[3] In the 2008 translation of Foucault's lectures, the word "government" refers broadly to the process of governing in the theoretical and practical, and I use it as such. In the Political Ecology literature, however, "governance" is sometimes used in this sense, with "government" referring to state bureaucratic apparatus more specifically. I am government in Foucault's sense of the word.

Li 2007). 'Governmentality' is this 'art of government', and its tactics include regimes of truth and incentive structures, which may be used in conjunction with tactics associated with sovereignty, such as discipline and coercion, but which also may be much more subtle.

The concept of governmentality is closely linked with a specific understanding of power. For Foucault, power is found in the relations among humans guiding their actions (Foucault 1982). The exercise of power that Foucault highlights with governmentality is "pastoral power," which enables as much as constrains people's actions. Power is not merely prohibitive; it also produces agency in the sense that it enables roles, understandings, skills, and beliefs. Government is effective when it shapes people's identities, habits, beliefs, and ways of thinking towards compliance with the techniques and institutions which try to control them. This process of guiding people into new identities, habits, beliefs, and ways of thinking shapes them as 'subjects of power', aka, shaping their subjectivity. As people continue to interact and encounter new institutional practices, engage with knowledge, form relationships and negotiate status, their subjectivity is continuously formed and shaped.

Foucault thus interprets neoliberalism differently than other scholars: not as a bundle of policies and structural adjustments, but as an art of government: a mode of governmentality that has become prevalent in recent decades (2008). This neoliberal art of government is in many ways an intensification of classic liberalism, but with some important distinctions. Liberalism theorized the market as an entity with natural laws that, if allowed to operate unfettered, optimized as people made rationally calculated decisions in their own best interest. Neoliberalism, on the other hand, further extends the rationality of the market throughout society, more deeply entrenching "the market" as the mechanism through which life is governed

(131). Thus, the policies implemented under neoliberalism support and sustain the market while allowing even more areas of society to be governed according to a market rationality.

Foucault's concept of governmentality is important in debates about neoliberalism's effects on environmental governance because it allows neoliberalism to be theorized not just as a bundle of policies but as a particular political rationality that forms a continuum from global politics to the "soul of the citizen-subject" (Brown 2003:7; Lemke 2001). New environmental projects form part of the neoliberal art of government and have changed the world by transforming landscapes and institutions, but also by shaping people into eco-rational subjects (Brockington, et al. 2008; Igoe and Brockington 2007). Scholars have used governmentality as an analytic to identify ways that community-based stewardship entrenches control as described above, and how NGOs contribute to this process. Community-based stewardship reworks relations among people, environment, institutions, and identities. It can be seen as an effective way to "win the consent" of subjects (often rural, poor, and resource-dependent subjects) by training them and transferring some state-sanctioned responsibilities to them. This process is often construed as empowerment by proponents, but, as Cooke and Kothari (2001) point out, what people call 'empowerment' is tantamount to the Foucaultian concept of subjection to power (13). NGOs, while their relationships to the state vary, can be vehicles for the practice of government in the Foucaultian sense as well, because they do things like keep records, train people, encourage and discourage different practices, and make communities more legible and compliant (Bryant 2002). Researchers have thus found the concept of governmentality useful for shedding light on the ways that community-based stewardship empowers civil society actors and non-governmental institutions to take part in the surveillance and discipline of themselves and their peers in ways that are convenient for state control—but not necessarily in the interests of

those who are the targets of government (Agrawal 2005; Bryant 2002; Li 2007; Neumann 2001). These analyses frame community-based stewardship as a tool of (neoliberal) governmentality that entrenches the conformity of nature and people to the logics of conservation embraced by state, NGO, and international institutions.

Arun Agrawal's (2005) book *Environmentality* is an exemplar among such analyses. Agrawal describes community forestry initiatives in Kumaon, India, that successfully shaped people into subjects who cared about the environment and saw a need for human stewardship of forests in line with state priorities. Residents of Kumaon were previously opposed to state control of what they saw as 'their forests' but after becoming members of local state-sanctioned forest councils, they managed the same forests more effectively than the state possibly could. Previously defiant citizens converted to a conservationist perspective under this technology of forest governance, using participation instead of prohibition. Agrawal uses the term 'environmentality' (playing on Foucault's 'governmentality') to describe the process by which people ceased to resist state-imposed conservation and were guided into cooperative arrangements with state resource management.

Over time, new political and administrative links between states and localities on the one hand, and the realignment of institutional and social relationships within communities on the other, linked to the emergence of a more widespread environmental concern. The interrelationship of these three elements—described, respectively, as "governmentalized localities, regulatory communities, and environmental subject making" is the heart of an analysis of environmentality. Agrawal describes these three aspects of this process as follows. First, there was a redefinition of political and administrative links between state agents and localities, leading localities to become "governmentalized". Community forestry included mechanisms that

reached more intimately into the lives of people who used the forests, and transfer information back into the forestry department. This was a new regime of relationships between the state and the periphery.

The second redefinition of relationships happened within communities as they became what Agrawal calls "regulatory communities". The creation of forest councils in villages meant that residents and local leaders began to be divided and allied in new ways (7). Some villagers favored the protection of forests and voted to create councils (which can be formed after at least one third of residents vote for them), while others did not wish to cooperate. Residents themselves became more or less involved in the responsibility of managing the forest through patrolling, enforcing restrictions, and replanting or weeding. Depending on the village, responsibility was divided more evenly or made more specialized. Residents began to supervise themselves and each other.

Third, these participatory regulation strategies were effective in changing people's attitudes towards "concern for conservation that renders environmental protection a moral act" (22). Agrawal's research showed that individuals involved in community-based forest monitoring placed a greater importance on protecting forests than those not involved. His findings suggest that as people's participation in environmental protection activities increase, their belief in the importance of protecting the environment deepens. The change was especially pronounced in cases where village forest monitoring was a specialized role, similar to the environmental promoters in the sense that promoters and some Kumaon villagers took on new duties monitoring resources. This set them apart from their fellow villagers. As the villagers in Kumaon fulfilled new roles and, as a result, adopted new attitudes they became what Agrawal calls *environmental subjects*:

I use the term environmental subjects to nominate those who care about the environment. More precisely, the environment constitutes for them a conceptual category that organizes some of their thinking: it is also a domain in conscious relation to which they perform some of their actions (165).

Making people into environmental subjects was the result of inculcating new stewardship roles among the population but it also entailed shifts in relationships between states and localities.

Environmentality is an important starting point for this dissertation, but my case differs from Agrawal's because I investigated subject formation with an NGO-community relationship at the center, rather than a state-led stewardship tactic. In the cases of the community-based vigilance committees I describe, it is sometimes the case that concerned citizens are frustrated that their engagements with state officials do not lead to an effectively "governmentalized locality," (in Agrawal's words) where local lay actors extend state surveillance. Instead, the actors I describe work opportunistically with NGOs. Regulatory spaces (stewardship committees and community government) and subjects shaped are remarkably varied as a result. The idea of a 'regulatory community' is apt, but villagers adopt new environmental regulatory aspects into their community governments with mixed results. It is for these reasons that I approach environmental subjectivity differently from Agrawal, and make a distinct argument about the multifaceted nature of environmental subjectivity and why these variations and inconsistencies are important to consider.

Investigating Environmental Subjects

Agrawal doesn't provide specific methodological guidelines for classifying individuals as having environmental subjectivity or not. His definition of environmental subjectivity requires subjects that see 'the environment' as a category that "organizes some of their thinking." However, he does not claim that a "purist's version of the environment" as separate from

material concerns and everyday practices is necessary for achieving environmental subjecthood (165). This leaves open many possibilities for different rationales for its protection and, thus, environmental subjects with different content: different reasons and motivations, different conceptual categories of nature, and respect for different kinds of authorities. Agrawal does not explore these variations, however, and measures environmental subjectivity only quantitatively, by degree. Scholars building on his work have in turn emphasized different characteristics of environmental subjects, such as consent won for regulation (Birkenholtz 2009; Segi 2013) and favorable views towards the validity of scientific knowledge (Cepek 2011; Haggerty 2007; Segi 2013).

Recent research studies have highlighted two trends within efforts to transform environmental subjectivity and potential variations. The first trend notes that the cultivation of environmental subjectivity among individuals is an incomplete process (Jepson et al 2013). Even when new circumstances and opportunities lead some people to adopt some aspects of environmental subjectivity, they are not always won over entirely to new ways of thinking and set of practices, and thus they perform inconsistently as environmental subjects (Jepson et al 2013; Segi 2013). While Agrawal acknowledged that subjects could vary by degree (in fact, he measured environmental subjectivity by degree), he did not delve into the possible implications of these different degrees. These variations of environmental subject formation highlight important gray areas in the effectiveness of environmentality processes. Rather than thinking of these variations as degrees of environmental subjecthood, and thus implying that environmental subjects are sometimes partially formed, I understand subjects as complexly whole but embodying other aspects of identity that might create an ambiguous relationship to environmentalism.

This connects to the second trend, which is the insight that people's preexisting subject positions influence who becomes an environmental subject and to what extent they embrace new ideas and practices (Birkenholtz 2009; Jepson et al 2012; Snodgrass 2008). This set of research begins to depart from Agrawal's conclusions. Agrawal focuses on the relationship of subjectivity to practice, arguing that it is through techniques that draw subjects into conservationist actions (such as monitoring or patrolling) that the strongest environmental subjectivities are formed. He argued that practices, not any preexisting characteristic a person might have, make people into environmental subjects. In fact, he argues that positionalities such as gender, caste, and class, distract us from identifying factors that matter. However, subsequent scholars have further interrogated this claim and found that positionalities such as class and caste do influence who becomes an environmental subject in other cases (Birkenholtz 2009; Snodgrass 2008).

Jepson et al's (2012) study documents that the preexisting positionality of actors can lead to ambiguous expressions of environmental subjectivity. In analyzing wind power supporters in Texas, they argue that environmental subjectivity formation is an incomplete process, with support for green technologies existing in tension with other viewpoints. Some stakeholders found reasons to support wind power while remaining, at best, ambivalent towards environmentalism. For example, some felt that wind power improved the aesthetics of the landscape, or focused on the economic benefits of wind power. However, these actors eschewed what they saw as "rabid" environmentalist arguments, and thus they found no contradiction in pursuing wind energy alongside coal-fire energy. Participation in a "green" energy movement did not modify people's foundational views about the environment in this case. This study illustrates reasons why actors might appear to reflect an environmental subjectivity in some ways but make other choices that seem contradictory.

Jepson et al's study also addresses the interactions between existing views of the environment and new technologies of government that try to shape people into environmental subjects. To understand why West Texans did not become more environmentalist, it was necessary to consider their pre-existing subjectivities. They saw nature in anthropocentric terms, used individualistic rationalities for wind energy, and held negative views of 'rabid environmentalists'. Therefore, while these stakeholders were won over by the wind conservation initiatives, they did not dramatically change their stances on environmental issues more broadly.

Together, these studies emphasize cases where environmental subjectivity is partial or its processes have been incomplete, with outcomes shaped by the preexisting subjectivity of those targeted for governance. My approach re-centers the analysis on subjectivity as complexly whole, and considers how processes of environmental governance give rise to new multifaceted subjects with new content, environmental and otherwise.

Gender and Indigeneity as Processes

In Agrawal's study, individuals who were drawn into regulatory activities, such as monitoring and patrolling forests, came to embrace conservationist priorities more deeply than others, regardless of their gender or caste. Subsequently he argues that scholars should "move away from abstract, static categories of social classification...using social categories such as gender and caste to try to understand subject formation serves only to obscure the processes through which subjects are made" (Agrawal 2005: 197). This argument contrasts with a large body of scholarship in political ecology that has previously argued that important distinctions in environmental subjectivity correspond to identities such as gender (Mellor 2000; Shiva 1988) and indigenous worldview (Escobar, et al. 1999; Ingold 2000). Agrawal (2005) criticizes these

scholars for making assumptions about which categories matter most. His analysis, however, treats gender and caste as separate static characteristics in order to identify their correlations with environmental attitudes, rather than treating them as part of people's complex mutifaceted subjectivites. He fails to consider how environmental subjectivity and other aspects of subjectivity might be co-produced or otherwise interface. For example, he does not consider the gender-influenced processes which might lead more men than women (or vice versa) to develop as environmental subjects, or that might produce differently positioned environmental subjects who protect nature for different reasons.

Many political ecologists have moved away from static concepts of social difference towards more post-structural understandings of identity, including attention to the relationships among different kinds of social difference. Feminist political ecology, drawing on poststructural feminist theorists such as Butler (1989), came to approach gender though the performative, embodied, and complex power relations that give rise to identity and ideologies (Elmhirst 2011; Nightingale 2006). According to this literature, subjectivities are "produced, employed and contested" with gender being one of many "multiple and fragmented identities" (Elmhirst 2011, 130-1). In the new feminist political ecology, gender is further decentered analytically and placed in the context of power relationships that also shape subjects as racialized, ethnic, religious, sexual, and so on (Elmhirst 2011; Fraser 2004; Mollet and Faria 2013). Elmhirst articulates that this kind of approach problematizes "naturalized and undifferentiated categories of people and social relationships including men, women and relations between them, and of course between people AND the environment" (130-1). However, these insights about intersectional subjectivity have not been explicitly integrated with the growing literature on environmental subjectivity.

Subsequent studies using environmental subjectivity as an analytic have shown instead how pre-existing subject positionings lead people to respond differently to efforts to change their behaviors and views of nature (Birkenholtz 2009; Snodgrass et al 2008). Birkenholtz (2009) directly challenges the generalizability of Agrawal's claim about categories of difference with a case showing why farmers of different classes responded differently to state reforms. In Birkenholtz's case, state-led groundwater management in Rajasthan, India, used awareness campaigns and the appointment of new water authorities in an attempt to institutionalize water conservation. The state's goals included shaping the thinking and practices of farmers so they would support state regulation and conduct themselves with state goals in mind. Some farmers protested the new regulatory scheme, while other farmers supported it. Birkenholtz argues that this differential resistance was due in part from interaction among multiple social positionings, such as caste and class, as well as different ecological conditions. For example, General Caste farmers stood to gain advantage by aligning with state priorities and scripting Scheduled Caste farmers as non-conservationists. Scheduled Caste farmers were legitimately distrustful of state authority due to past experiences and feared losing their access to resources; thus, they protested.

Snodgrass et al (2008) offer a contrasting case where pre-existing subjectivities matter in a different way. They analyze why specialists with herbal healing knowledge were more committed than other villagers in India to preventing and mitigating overharvest of jungle resources. Shamans and herbal healers responded differently to state efforts to control resources, reflecting their different socioeconomic situations. Shamans historically experienced repression of their practice at the hands of the state and were therefore less disposed towards outsiders. Herbalists were poorer and more dependent on jungle resources, and had favorable relationships to state and parastate structures (eg, access to state and NGO-sponsored training) and so were

more accommodating to state resource control efforts. The authors argue that these herbalists practiced an 'environmentalism of the poor' (see Alier-Martinez) and go on to explain that "herbal healers' particular economy is intertwined with their environmental ethics in a way not characteristic of religious specialists or other tribals" (307). In this case, those of lower socioeconomic status were more accommodating of state resource control, while in Birkenholtz's case the reverse was true. While these two studies document different outcomes, both clearly show that caste, class, historical relationships, and other socioeconomic variables influence how people respond to state and parastate environmentality tactics. Caste and class are "more than social identifiers, but actually relate to structural positions with material interests and outcomes" (Birkenholtz 2009; 218).

Segi (2013) further demonstrates the importance of social positioning in cases where attempts to produce environmental subjects was only partially successful. Segi follows a marine protected area (MPA) imposed on villagers in the Philippines, showing how villagers became increasingly supportive of it as they were convinced that it was having a positive effect on fish populations, and changed some of their harvesting practices to comply with the protections. However, villagers did not fully implement penalties for violations of restrictions, and instead modified the regulations (unofficially) in ways that fit with local values regarding livelihood needs and fish importance. Segi points out that regardless of their role and level of involvement in the MPA, villagers were "clearly expressing a social identity shaped within the local political economy and accentuated in their claim for fairness" (343).

These studies illustrate that actors' existing subjectivities, which already reflect complex economic and political relationships, are pertinent to understanding why and to what extent they adopt new ideas and practices in response to environmentality tactics. In combination with the

theoretical approaches to intersectional subjectivity offered by feminist political ecology mentioned above, I therefore examine gender, indigeneity, and other intersubjective characteristics as processes deeply connected with environmental subjectivity (Birkenholtz 2009; Nightingale 2006). I posit that these identities and categories are not static, but reworked along with the roles, capacities, and knowledge people have in their environments and in relation to each other. Categories such as gender and indigeneity are thus co-produced along with environmental subjects.

In asking about the variations of environmental subjectivity, my research acknowledges that subjectivity is multifaceted and that any newly formed environmental subjects will simultaneously reflect other kinds of situated subjectivity. However, rather than reproducing 'static' categories of race, gender, and class, as Agrawal warns against, I instead look at how actors understand their own positionings, whether that is as indigenous, as campesinos, as victims of pollution, or otherwise. In capturing and analyzing differences, this dissertation adds nuance to debates about environmental subjectivity by illustrating the varied outcomes of governance strategies in the diverse ways subjects embrace ideas and reshape ideas of themselves, others and the environment as they engage in community-based stewardship efforts.

One of the advantages of unpacking the concept of environmental subjectivity qualitatively in this way rather than measuring it by degree is that it allows for a much more nuanced understanding of the workings of governance in the Foucaultian sense. Critiques of governmentality point out the tendency to lend governmental schemes a deterministic quality and underestimate the agency of people responding to them (Cepek 2011; Ghosh 2006). Some scholars have argued that Agrawal's work exemplifies this interpretive danger, for example, because Agrawal emphasizes technologies of power but ignores the complex ways subjects

exercise agency (Raffles 2005; Singh 2013). In Singh's (2013) research, residents of Odisha, India, came to their own conclusion that forests needed protection, and began patrolling of their own initiative, cultivating 'affective' environmental subjectivities in themselves. Thus, state-led tactics are not exclusively responsible for convincing people to care for nature in all cases. Villagers themselves also make their own subjectivities through interaction with their forests, rivers, and landscape. In this dissertation, subjects choose among different discourses of nature and advance different versions of conciencia depending on the context, expressing their situated differences through their agency.

Besides expressions of conciencia, I seek to understand where and how conciencia is lacking. Cepek (2011) emphasizes the failures of interventions to create environmental subjects in Ecuador. He describes the case of the Cofan of Ecuador and a community based conservation project that failed to produce them as the intended subjects, even though many of these Amazonians adopted new resource monitoring practices. The Cofan had already developed their own set of environmental prohibitions for the purpose of maintaining their rivers and forests prior to NGO and government attempts to cultivate state-aligned actors. As conservationist NGOs became interested in their work, a program (ECP) was developed to encourage Cofan people to direct their conservation efforts towards more scientifically informed resource management. The project coordinators involved residents in scientific data collection and monitoring in the hopes of refining local biodiversity preservation. Project participants had their subjectivities worked. For example, they learned techniques that forced them to navigate the forest in new ways (e.g., transect walks for data collection), and found themselves in new hierarchical relationships (with scientists and with each other). Cepek indicates that Cofan participants had to reorient their senses of self in the context of ECP relationships and practices,

suggesting that subjectivities were changed in at least some ways. However, the Cofan participants were not "won over" by scientific knowledge production and did not come to see their new activities as useful in environmental protection. Therefore, Cepek asserts, they did not become environmental subjects.

Cepek's study raises some questions about the ways that subjects are shaped that might fall outside the optics of governmentality. Cofan participants did not become the environmental subjects the ECP leaders sought, although they did consent to and actively participated in new regimes of calculation and surveillance that expanded the mechanisms of environmental governance over their forests. These decisions were motivated by other incentives (such as political-economic opportunities), revealing their agency directed towards different, but also potentially transformative ends. Cepek seems to downplay the significance of these changes, focusing instead on the failure of the ECP to win the hearts and minds of Cofan participants to scientific conservation specifically. Although the project failed to produce the kinds of subjects the ECP scientists wanted, subjectivities were still transformed in other ways through the new tasks and relationships, including their relationship to the state. If intervention did not produce the intended subjects, what kinds of subjects did it produce? Cepek does not explore this question.

This dissertation argues for an expanded approach to environmental subjectivity. If people are always already situated with respect to power relationships when they encounter technologies of government designed to shape them into environmental subjects, how does this reflect their environmental subjectivity? The subjects created are already shaped by their histories of struggles over resources and relationships with others and with power and inequalities. Further, apparent failures to create environmental subjectivity (because not

everyone becomes an environmental subject) are shaped by these histories and positionalities as well. In short, how people engage with new environmental discourses, and which ones, is guided by history, context, and pre-existing subjectivity. People are multifaceted subjects whose other identities and experiences therefore influence who becomes an environmental subject, how, and—importantly—what discourses inform that subjectivity.

In this dissertation, I focus primarily on how campesino community members and trained environmental promoters engage with three discourses of nature (which I describe in the next section) that are common in contexts of training and the multi-institutional negotiations over the care of nature in which they participate. I also pay attention to how these experiences interrelate with how gendered and indigenous subjectivities are shaped, including how opportunities to affect resource decisions are experiences by men and women. While training encourages people to engage with discourses of nature (that are perhaps new to them) trainees do not acquire a 'pure' environmental subjectivity—rather their conciencia always emerges from a standpoint, and it has limits. Likewise, environmental subjects are always connected to politics and history and how they turn conciencia into agency reveals this. Furthermore, I look at the people who do not become environmental subjects, and the factors shaping their subjectivity towards non-conservationist behaviors. These outcomes matter. Those who do not become environmental subjects are still part of the puzzle that is environmental governance arrangements.

The empirical questions driving this dissertation are: How do people targeted for improved environmental consciousness and behaviors (rural villagers, NGO training recipients, and participants in community-based environmental committees) come to see nature as something that needs to be protected? Who do they think should be protecting it, and why/for what ends? What are the different ways of seeing/protecting nature?

How do the understanding of nature and the need to protect it, as interpreted by promoters, relate to the expectations of the NGO staff, governmental officials, and mine engineers who engage with them? How are different views made to interact, compete, speak to or past each other, and what can people accomplish using these different discourses? Finally, when the targets of governance *do not* come to see nature as in need of protection, what do they see instead? What motivates them to continue participating in the projects and committees that are about protecting nature?

These questions can be better interrogated and complexly answered through a comprehensive methodological approach that pays attention to the multiple aspects of people's subjectivities, not just their environmental attitudes and behaviors. My dissertation argues that environmental subjects (citizens committed to protecting nature through stewardship) are diverse, multifaceted and, significantly, not always cooperative with state agendas. I highlight three discourses at play that explain these dynamics. These discourses bring into focus the patterned ways that environmental subjecthood is construed and challenged in combination with other fundamental forms of selfhood. However, these three discourses should not be interpreted as static, and my descriptions of actual subjects to exemplify them must be tempered with the reminder that people act within social contexts and are apt to draw on any number of discourses they find useful. In other words, no one is reducible to a single discourse.

The Different Discourses of Conciencia

During my research in Ancash, Peru, I observed how the concept of conciencia exhibits strikes parallels to the concept of environmental subjectivity, but that the two are not the same. Environmental subjectivity is a category used by researchers. Scholars who use it (including

Agrawal, Haggerty, Birkenholtz) define its meaning in their research, then identify who has it and who does not. Conciencia, on the other hand, is a folk term and is thus contested. People use conciencia to means different things, and might disagree about who has it. Further, they can express their own conciencia quite differently from each other, even if they agree on some sets of actions or priorities. Conciencia thus reveals an understudied side of environmentality: subjects have different interests, perspectives, and content of identity that motivates them to protect nature or not. At times, these differences might be concealed or downplayed, allowing alliances to be forged temporarily around a common cause or interest (or even as a result of misunderstandings, see Tsing 2005); but differences can also fuel conflicts and disagreements.

I interrogate these differences and bring them to light through an analysis of three different discourses that color the adoption, interpretation, and performance of conciencia in Peru. My analysis illuminates the different content of people's multifaceted subjectivity in relation to environmental protection. This adds nuance to the concept of environmental subjectivity by turning the question of how one identifies an environmental subject towards the subjects themselves, showing the different ways people can perform as environmental subjects, as well as the inconsistencies in these performances. (For example, in the studies cited above, adoption of scientific views of nature is understood by scholars to reflect environmental subjectivity. Below, I consider science as just one of three different ways environmental subjects can express their commitment to conservation). This broader understanding of environmental subjectivity also complements my quest to examine the interrelationships between gender, indigeneity, and environment, because it is through these variations that interrelationships come to light. By looking at how conciencia is used by on-the-ground actors who claim to have it

while others do not, I aim to contribute a more complex theory of environmental subjectivity that accounts for people's broader and multifaceted subjectivities.

Below, I describe three environmental discourses that I have labeled Technical Science, the Andean Cosmovsion, and Economic Rationality. These discourses allow people to be environmental subjects in distinct ways. Each of these is deployed in certain contexts and each posits a theory about what the environment is, why and under what conditions it should be protected, what the threats to it are, and who is best positioned to protect it and how. Each discourse relies on situated actors who promote it or identify with it. These discourses sometimes compete, are sometimes made to coincide with each other, and are sometime concealed under the more generally agreed upon idea of 'conciencia'.

My use of the term 'discourse' to describe the three sets of ideas elaborated below draws on Foucault's definition of the term, which understands discourse to be more than just language, but as a body of ideas and knowledge which themselves shape the world and people's thinking about the world, guide how the world is viewed and interpreted, and what thoughts and speech acts are made possible and made to make sense. For Foucault, discourse is connected to exercises of power and power relationships. Discourse leads to practices, including forms of social control and social possibility. As Hall (1997) describes:

> Discourse, Foucault argues, constructs the topic. It defines and produces the objects of our knowledge. It governs the way that a topic can be meaningfully talked about and reasoned about. It also influences how ideas are put into practice and used to regulate the conduct of others. (44)

Thus, in using the term 'discourses,' I highlight the fact that these identified sets of ideas are, on the one hand, ways of thinking and talking about the world, and on the other hand indicators of kinds of practices and ways of guiding subjects towards these practices. They define and

circumscribe the world in specific ways. They indicate divisions, methods, and perspectives, and they seek to group behaviors and knowledge in legible ways.

Technical Science

Scientists, engineers, many state officials, as well as a few NGO actors assert the authority of science as a specific way of knowing the environment and seek to inspire a conciencia that is in line with such a view. From this view, nature is an object that can be studied and known, and then acted upon in informed ways in order to maximize the health of ecosystems and hydraulic systems. Proponents of this view see scientific knowledge as producing universally applicable knowledge. Proponents tend to see it as impartial and objective, and want other actors to see it this way as well.

Technical science must be created and explained by experts who have had the proper training and are positioned to evaluate environmental problems from this perspective. In the contexts I describe, experts are often environmental engineers who are hired by mines, NGOs and municipalities. These technicians often have the job of explaining things about the environment to others who do not have a technical background, or conducting tests that require special knowledge to perform. As experts, they sometimes have to make subjective calls about the state of resources but also tend to present what they know as unbiased truth. In this way, technical science can be subjective in practice, because those who embody it have political alliances and agendas. In this dissertation, I describe examples where people acting as experts seemed to use strategies along with their assertions of expertise, such as when mine engineers use scientific uncertainty to buy time before taking action or admitting responsibility. I also show

how the claim to universal knowledge and expertise attached to this discourse is challenged by non-experts, including environmental promoters and untrained campesinos.

Using the discourse of technical science, actors construct others and themselves as having conciencia or not in specific ways. People who have conciencia are construed as those who recognize and trust the authority of science within the contexts of environmental planning, resource use, and identifying contamination and mitigation. Those who distrust the 'facts' produced by science or act against the recommendations of engineers, or who attempt to redefine technical terms (like contamination) according to their own views are construed as lacking conciencia because of their rejection of the authority of science. As I will discuss, it is often campesinos who are targeted with technical science via training and dialog with mines, in hopes that they will adopt and wield this view of conciencia that is embraced at the state level.

The Andean Cosmovision

The NGO Urpichallay advocates conservation from the standpoint of what they call *La Cosmovision Andina*, or the Andean Cosmovision, which they use to characterize an Andean cultural view of nature. In their descriptions, the earth is a physical reality as well as a deity and a gendered entity (*pachamama,* or earth mother). Other elements of nature such as mountains, the sun, the moon, and water are conceptualized in the same way. All elements are alive, including resources such as water, and have characteristics of living beings. People of the Andes, Urpi staff explain, see the natural world as part of and integrated with a world of human relationships as well as spiritual and divine, thus people interact with natural resources in ways that reflect these relationships.

Key to this cultural worldview is the idea that nature must be treated with respect and egalitarianism. People converse with nature through signs, rituals, and dreams, and see themselves as caretakers of nature while also acknowledging that nature (as pachamama, for example) takes care of them. According to the NGO, respect includes practices like making ritual offerings to pachamama and not throwing trash in rivers. Therefore, the Andean Cosmovision leads to a conciencia of a particular type—one based on an indigenous worldview in which nature is alive and anthropomorphized and protected by people via co-nurturing. In this version of conciencia, indigenous practices and practices in line with conservationism are understood to stem from an indigenous philosophical understanding of nature.

The Andean Cosmovision is a discourse that narrates conciencia and a lack of conciencia. Indigenous Andean people who embrace their ancestral culture have conciencia because they have fundamental philosophical beliefs about nature that dictate that it should be protected and ancestral practices that preserve resources. The NGO contrasts the Andean Cosmovision with a Western or Modern Cosmovision, arguing that the West views nature as a dead object that can be exploited without reverence, and that this has led to massive environmental destruction worldwide. While the NGO's staff agrees that useful conservation knowledge and practices can also come from Western culture, they do not see the philosophical underpinnings of the Western Cosmovision as intrinsically conservationist in the same way as that of the Andean Cosmovision. Western culture is held responsible for a lack of conciencia and the overexploitation of resources.

Urpi engages a variety of people with this particular view of conciencia. They encourage campesino farmers to revitalize their ancestral practices, as well to take part in conservation efforts that stem from a Western perspective (such as recycling) but recontextualize them as in

line with the Andean Cosmovision. Campesino populations are seen as both a source for the Cosmovision and as needing intervention to fully embrace it. Urpi also engages members of other institutions, mines, and state organizations, hoping to convince them that campesino farmers can make valuable contributions to conservation efforts from this culturally different standpoint.

Economic Rationalism

The idea that people are motivated towards certain behaviors due to calculation of the risks and benefits to themselves shapes both how people engage in environmental protection and how their actions are interpreted. Economic-rationalism positions nature as resources that have value, or potential value, in a market economy. These can be exploited or protected and decisions to do either reflect decision-making calculations and cost-benefit analysis. The actors that embrace this view, including many in NGOs and the National Park office, do not see economic rationalism as automatically producing conciencia, but as useful for helping people 'realize' nature's true worth. If the conditions are set up such that people see nature's protection as in their best interests economic rationalism will enable conservationist behaviors. Those who have conciencia are thus those who recognize that nature is "worth" more when left pristine, or when exploitation is managed so that it is sustainable over long periods of time without destroying the ecosystem. People who act in their short-term interests and exploit resources for personal gain lack conciencia because they have calculated poorly.

State organizations and NGOs are invested in this discourse, and use various tactics and incentives to attempt to shape the economic calculations of campesinos. The National Park office in particular is invested in getting people to see that personal benefits come from following the

rules and restrictions they attempt to enforce. Within this discourse, campesinos are understood to be economically calculating but experience contexts and incentives beyond what the institutions targeting them with rationalism can control.

It bears clarifying that economic rationalism is different from the other two discourses of nature described above. It is not, itself, a form of environmental conciencia. Rather, it could be seen as a different kind of conciencia—one where personal rational decision-making in one's own best interest is normalized and seen as morally sound. Only when the conditions are 'set' properly will people 'see' that economically, it is in their best interest to protect nature. The idea of economic rationalism is more hegemonic. It is how a wide range of actors perceive that decision-making works, and it is also how they have been led to behave. Economic rationalism is conciencia in the sense that it justifies legitimate ways of doing things, and it justifies Vicosinos acting a certain way with their resources. It is not 'taught' the way the Andean Cosmovision and technical science are, however. It is assumed to be already and always at work.

Scholars studying neoliberal subjectivities have linked practices of government to the cultivation of subjects who act with neoliberal rationality, making self-interested and calculative decisions in their life choices (Elyacher 2005; Hayden 2003). Economic Rational subjects do not 'just exist', but must be shaped towards specific forms of rationality. New relationships among citizens, state, institutions, and regulatory frameworks require these newer subjectivities but also connect to past market-centric approaches and liberal ideologies. I discuss this more in Chapter 6, but here I wish to emphasize that economic rationality, while it is another way of talking about the subject called *homo economicus* under neoliberalism, is not new to the Andes and campesinos have long responded to economic incentives and disincentives in environmental decision-making. The conditions under which people make their calculations, and the kinds of

information they are expected to use to calculate, however, has changed, in part due to stewardship projects and in part due to other kinds of shifts in power and incentive structures.

Each of these three discourses is a product of the imagination, but has empirical grit. Andean culture is not an invention of Urpichallay. People native to the Andes do exhibit characteristics such as a spiritual reverence for mother earth and for natural processes, and understanding these differences as cultural makes sense in many contexts. Economic rationalism captures aspects of how people really do make decisions and think about resources. Technical science is a method of producing knowledge about nature that has widely applicable and effective uses. In analyzing each of these as a discourse, I do not deny their empirical traction, but I wish to highlight how people engage with them as they situate and form themselves as subjects. This perspective considers the ways in which conceptualizations of nature, culture, human nature and knowledge become part of the political toolkits people use to shape each other's subjectivities.

Any of these three discourses can be applied to define and evaluate who does and who does not have conciencia by on-the-ground actors. Anyone can be perpetuated or promoted via technologies of government, and each can be analyzed using the analytic of governmentality. The possibilities opened by these discourses contrasts with narratives of community based stewardship, where technologies of power lead to a more deeply won consent to a singular logic. Instead, my dissertation demonstrates that there are multiple discourses that people can 'consent' to at various points in time. My discussions of these different views reveal how messy attempts at environmentality really are in practice.

Further, because I focus on the way my informants see each other, and the fact that they use different criteria to evaluate each other's subjectivity, my research thus highlights the

contested aspects of being an environmental subject. Environmental subjectivity has been treated in the literature as a characteristic people either occupy or do not, but "conciencia" has an inherent malleability. Because of this malleability, people can use more than one version of conciencia, mix or conflate them, and switch between them at different moments. Whereas a few people may represent a particular type of conciencia well (for example, mining engineers were often committed to technical science as the most authoritative discourse), many people I encountered did not neatly and consistently exemplify a single type. Different types of conciencia—or, different environmental discourses—are in circulation and available to be deployed. This ethnography focuses on moments when people enact their agency by deploying version one or another within a specific context, often for specific ends. For example, campesinos from the community of Vicos (Vicosinos) position themselves as victims of mining contamination within the context of environmental training workshops. However, when negotiating with mines directly, they use economic rationality to demand payments. Because conciencia is performed in contexts, sometimes people behave in contradictory ways, and appear to lack conciencia. While these contradictions can be seen as failures to create environmental subjects, I am able to explain the multiple and competing ideas that produce them.

This dissertation argues that environmental subjects are also multifaceted subjects with different interests and identities that they live out in daily life. When people become newly indoctrinated with new roles, responsibilities, or training, they do so as subjects that are already and previously situated in other meaningful ways. At the same time, however, rural participants I describe re-situate themselves with respect to gender relations and indigeneity when they engage with environmental discourses and stewardship training, and concepts like Andean indigieneity are themselves transformed when they are engaged in environmental stewardship technologies of

government. My work draws on feminist and intersectional theory to understand these multi-directional transformations. Social positioning matters, context and content matter. People come to express conciencia in different ways and from different positions.

Overview of the Dissertation

In the next chapter, Chapter 2, I provide a comprehensive overview of the sites where I conducted research in Andean Peru and the methods I used to conduct this research. I provide background and context on the political economy and ecology of Ancash and the role of mining, and the context within which training promoters to be environmental stewards came to be seen as a good idea. I describe the NGO Urpichallay's role, and Vicos, the campesino community where I spent 12 months living and observing environmental stewardship efforts and interviewing Vicosinos about their thoughts on the environment. That chapter situates my own identity as a North American researcher and how the personal connections I made with Vicosinos shaped my data while also making the research possible. I also describe my relationship with Urpi and the various other institutions I had contact with and the reasoning behind the focus on these particular institutions for addressing my research questions, as well as what these connections enabled.

In Chapter 3, I provide background on community-based environmental committees and describe what "promoters" are and why Urpichallay seeks to train promoters and help them form environmental committees. This chapter is also an ethnographic examination of Urpi's training workshops where promoters learn about the environment and its governance. I focus on how the management of the environment is taught during these workshops, and how trainers and participants interact through participatory structures. I show how the environment is constructed

as a technical object, and how idealized relationships between promoters and state governance are conveyed. Trainers use them to attempt to establish coherent truths about nature (and civilian roles in protecting nature). Drawing on fieldnotes taken during workshops and archives of workshop materials, I analyze activities that direct participants to think about nature, resources, and approaches to protecting these that in many cases are different from what they are used to. Trainees are encouraged to accept the authority of science and rational governance (although not the Peruvian governance agencies themselves) and also understand nature as something that can be viewed through different 'cultural' lenses. Trainees also learn new ways to frame the environmental problems they perceive. This sometimes entails leaving out facts that complicate the situation and provide a legible narrative within the discursive tropes available, or adhere to a more strictly 'technical' narrative of problems. Promoters grapple with these ideas during workshops and sometimes have trouble reconciling them with their community situations. I argue that workshops exemplify a technology of governance in the Foucaultian sense, but they only partially indoctrinate the participants into new ways of thinking about nature.

In Chapter 4, I describe Urpichallay's conceptualization of the Andean Cosmovision and how this construct matters in the work that they do. Urpi teaches promoters that the environment is an inherently cultural topic, and that differences in how people view nature are linked to cultural differences. Urpi's characterization of the Andean Cosmovision places it in contrast to western culture (which is associated with science). I delve into what ways Urpi's view resonates with actual campesinos they work with, and in what ways and to what extent it does not. Using the example of Vicos, a community with which Urpi has conducted projects for over 10 years, I describe how some individuals reflect Urpi's descriptions of their culture while, overall, many in the community do not clearly reflect what Urpi describes about their cosmovision. Individuals in

Vicos also interpret these cultural concepts differently than in Urpichallay. The Andean Cosmovision impacts how people conceptualize conciencia and approach resource conservation. Because of the differences in how Andean culture is portrayed by Urpi, the way Vicosinos express their own idea of their culture, and the way others (State/NGO members) interpret this, there are some negative repercussions for Vicos. Vicosinos are seen by some as having both a degraded culture AND a degraded environment (for which they are also blamed). This is an unforeseen effect of what is intended to be a discourse of conciencia that is empowering for rural Andean people.

While Chapter 4 focuses on the Andean Cosmovision, Chapter 5 places technical science at center stage. I describe interactions among trained promoters, their vigilance committees, villagers and municipalities, mines and state agencies. State agencies, most NGOs, and mines draw on science to document and explain environmental problems and guide solutions. Science is also wielded as an authoritative discourse by mine engineers who are able to use it for the political protection of the mine while also claiming to care about the environment. Many campesinos desire to understand the science better, but at the same time are distrustful of scientific explanations based on who is offering them. Promoters try to bridge this gap, but also assert the importance of experiential ways of evaluating nature as a separate kind of authoritative claim. These conflicts center on the idea of contamination, which those who wield scientific authority position themselves as able to define. Many campesinos use the word contamination synonymously with ‘impacts’ as a way to assert their own dissatisfaction with the state of their environments. However, their views can be dismissed as mere ‘perceptions’.

In Chapter 6, I place the third discourse, economic rationalism, at center. I explore how economic incentives influenced environmental decision-making in Vicos and also how the idea

of incentives shapes interpretations and strategies of those who target Vicos for improved conciencia. I trace the history of environmental stewardship and NGO interventions in Vicos, and how Vicos promoters, Urpi, and the community government interacted over time as these relationships evolved. I also consider how the Vicos community government has interacted with mines over the years, responding to powerful economic incentives. In some ways, the negotiations between Vicos and mines evolved in such a way as to defy one of the main goals the NGOs had when they helped initiate stewardship and dialog with mines, which was to increase Vicosinos efforts to protect their environment. Vicosinos use accusations of environmental damage when negotiating with mines but are focused on community development and cash payments as outcomes of these negotiations—and have also found ways to profit off of illegal mining. This complicity is overwhelmingly seen by would-be allies as 'lack of conciencia', but in other ways Vicos has adopted regulatory strategies over resources that did not exist in the recent past. Vicosinos are not environmental subjects in a straightfoward way but their resource governance strategies reflect some internalization of some aspects of environmental subjectivity, for example the need to use institutional arrangements to protect nature as resources. In this way, Vicosinos do not just respond to incentives around resource exploitation and protection, they also create them, and in doing so they shape each other's subjectivities towards a conciencia that is sometimes conservationist, but also community-oriented.

The quote from Urpichallay's publication that opens this chapter paints conciencia as a unifying responsibility spread across different sectors of society. Individuals must act responsibly with their own trash, companies with their waste, and authorities must commit to protecting the environment. The law, in turn, must guide actors at each level. It is a smooth coordination dreamed of in this text, and the different interests among these actors are

momentarily set aside for the common goal of protecting nature. However, hints of complexity are still smuggled in. Companies must follow the law *and* fulfill their obligations to communities. Authorities must recognize the value of nature *but first* they must comply with their functions. This dissertation probes the fissures among these concerns that get glossed as conciencia.

Chapter 2:
Place, Context, and Methodology

At about six in the morning, a grey light illuminates central Vicos. I walk down the dirt road past adobe houses where smoke curls up from the corners of tile roofs and dogs hunch over in doorways. A few shop doors are already open, and cars rumble up the dirt road. Most of these are white hatchback *colectivos* (collective taxis) shining their headlights on the road ahead of them looking for passengers wanting to go to the town of Marcará. I wish I could sleep in and conduct interviews at a more leisurely hour, but I know that by seven, many men will have left their houses for the day to work in their fields or to conduct business in a nearby town, and they won't be home again until after dark. I am interviewing both men and women, but separately, and starting early seems to be a good tactic for catching the men at home before their busy day begins. Already I see some men leaving their houses for the fields, pickaxes slung over their shoulders, and I hurry. I will return to interview the women a few hours later, after children have been sent off to school but before they take their animals to pasture. Yet women are always busy, presenting a different set of challenges for interviews.

Danila[4], my research assistant, walks quickly with me as we comment on the cold. I wear a down coat, and Danila wears her everyday clothes, characteristic of the young women in Vicos: two brightly colored sweaters with layered wool skirts, knit leggings, and a wool fedora a top her head, decorated with ribbon. On her feet, she wears rubber sandals common in rural communities and I don't envy her exposed toes. She also carries what women here call a *manta* or *lliklla,* a large square of woven cloth women use for covering or to carry bundles on their backs. This morning, she wraps it around herself for added warmth. We both also wear

[4] Name changed

embroidered wool shawls over our shoulders that are common in Vicos. In a few hours, we will be conducting interviews in the hot sun and will place our shawls over our hats to shade us.

Danila and I take a path behind the school and start hiking up a section of dirt road that leads to sector Vicospachan, one of ten sectors in this large community. After a few switchbacks up the hillside, we rest, mostly for my benefit. Sector Vicospachan occupies the slope directly above the plaza, and gazing down, we have a bird's eye view of central Vicos. Now, Danila and I begin to identify recognizable features in the growing light of morning. There is the plaza with the church on the east side, and next to it the elementary school named for Mario Vázquez (a Peruvian scholar who was pivotal during Cornell University's applied project in Vicos during the 1950s and 60s). On the other side are the office buildings and courtyard of the community where plans are in the works to build an auditorium. I can't help but notice how much Vicos has changed in the six years since my first visit in 2004, when I conducted Master's research on a recently formed tourism cooperative. There is now a market building made of cement with covered stalls and a soccer stadium surrounded by chain-link fence. Paved sidewalks run along the dirt road up to the plaza, although the paved roads that have been promised by the Ancash regional government are still forthcoming. A sewer system has also been installed in this area, although some residents have yet to be connected.

In Peru, campesino communities are state-recognized agricultural lands communally held by rural farmers called campesinos. The registered landholders in each family are called *comuneros*, and Vicos had 743 registered comuneros in 2010. Vicos land is divided into 10 sectors, 5 of which are also townships (*caserios*), but all ten sectors are treated as equal entities within the campesino community governing structure. Comuneros have the right to build a house in Central Vicos, and as more people are building a house near the plaza, Vicos is starting to feel

more like a town. Many families have at least two houses—one near their fields and one in Central Vicos. Vicosinos describe this process as urbanization (*urbanización*), and it is something that comuneros have been trying to achieve along with the increase in services and infrastructure they see as necessary for Vicos and for, they hope, eventually being re-designated as a district.[5]

Another change since 2004 is the increase in two-story cement houses, some with balconies and tiled exteriors, interspersed among the adobe ones. Danila points out a particularly large two-story red brick house near the Vicos river. By far the most extravagant residence in Vicos, the house sits empty because the entire family moved to the United States. Danila tells me that they wanted their house in Vicos to be built in a true "North American" style, and wants to know if that is what houses in the United States look like. Some do, I say. While some Vicosinos have migrated permanently to Lima or to the United States, others travel temporarily for labor and engage in trade. Some pursue professional training and start their own businesses. More recently, opportunities presented by nearby mining operations allow Vicosinos to engage in wage labor while remaining nearby. Mining companies have enabled some of the new structures in the community that I now admire, such as renovation of the nearby hotsprings and a new community hall where comuneros can gather. Other benefits from mining, including rents paid in the community, have expanded economic options, although not equally for everyone.

Many families engage with the internationally-funded projects of NGOs such as World Vision, The Mountain Institute (TMI), and *Asociación Urpichallay* which also seek to shape hearts and minds while offering new mechanisms for Vicosinos to improve or transform their

[5] Vicos is currently designated as a Centro Poblado within Peru's geopolitical classification system, in addition to being a Campesino Community. Upgrading to a District would improve their positioning for governmental services and would allow them to received regional funding more directly.

lives and livelihoods. As a result of one such project, some Vicos families host tourists from Europe and North America, and have learned to share certain aspects of their "culture" while learning about and shaping this culture actively themselves in the process and forging new transnational social connections (Babb 2011; Kalman 2005).

I understand Vicos as what Tsing (1993) calls an out-of-the-way place that is in fact deeply engaged in what has been called globalization. The "North American" style house hints at transnational connections that permeate and influence the lives of Vicosinos in a myriad of ways, inciting desires and influencing transformations in both population and landscape. And Vicos is a rapidly changing physical and social landscape. Community leaders, backed by the general assembly of comuneros, work to bring infrastructure and to manage the often contentious relationships with nearby mines. The accomplishments are sometimes uneven—evident in the paved sidewalks without a paved road, or the fact that not all residents are connected to the sewer system. As new buildings spring up, new forms of social inequality are now visible among neighbors in the forms of their houses.

This dissertation focuses on engagements with environmental protection and contamination across different institutional power structures and social realities, and the corresponding subjectivity shifts indexed by 'conciencia'. Vicos is one site of this research, where different actors, particularly via NGOs, are attempting to improve environmental conciencia, while the residents of Vicos are also imagining and shaping their individual and collective futures through the opportunities they encounter. In this chapter, I introduce the ecology and geography of my larger research site, Ancash, then given an overview of the specific economic history of Peru that has led to the current context of mining and decentralized environmental management strategies. Then, I introduce the specific sites of my research: Vicos,

Urpichallay, and *the Red Regional de Comités Ambientales de Ancash* (RRCAA), a regional network of community-based stewards who have established environmental vigilance committees in order to protect their home communities from contamination, usually from nearby mines. These three institutions and the actors engaged with them were the main focus of my fieldwork in Peru. In describing the role of each, I also situate my own involvement with them as a researcher, North American visitor, and "gringa" in Peru. I end with an explanation of my specific methodology and data analysis for this dissertation.

Ecology and Geography of Ancash

Ancash is a region[6] of Peru directly north of Lima, bordered on the west by the Pacific Ocean and the South by the region of Lima (Figure 1). The Andes mountains and high altitude plateaus fill the eastern side of Ancash. A prominent long valley called the Huaylas Valley (*Callejon de Huaylas*) is located at center, separating a ridge of high altitude glacier covered peaks on the northeastern side (the Cordillera Blanca, or the White Mountains) and darker brown peaks on the southwestern side (the Cordillera Negra, or the Black Mountains). Running through the center of the Huaylas Valley is the Santa River, from its headwaters at Lake Conococha to the ocean near the town of Chimbote. The Huascarán National Park (PNH) encompasses the White Mountains and contains many tributary valleys to the Santa River where campesino communities are located. On the other side of the White Mountains is another great valley, Conchucos, on the eastern side of Ancash. On the western side of the Black Mountains, altitudes drop rapidly and smaller valleys open up towards the coast.

[6] A region is the political-geographic equivalent of a state in the U.S. I use both the term region and department refer to Ancash because regional designation was relatively recent "department" was commonly used.

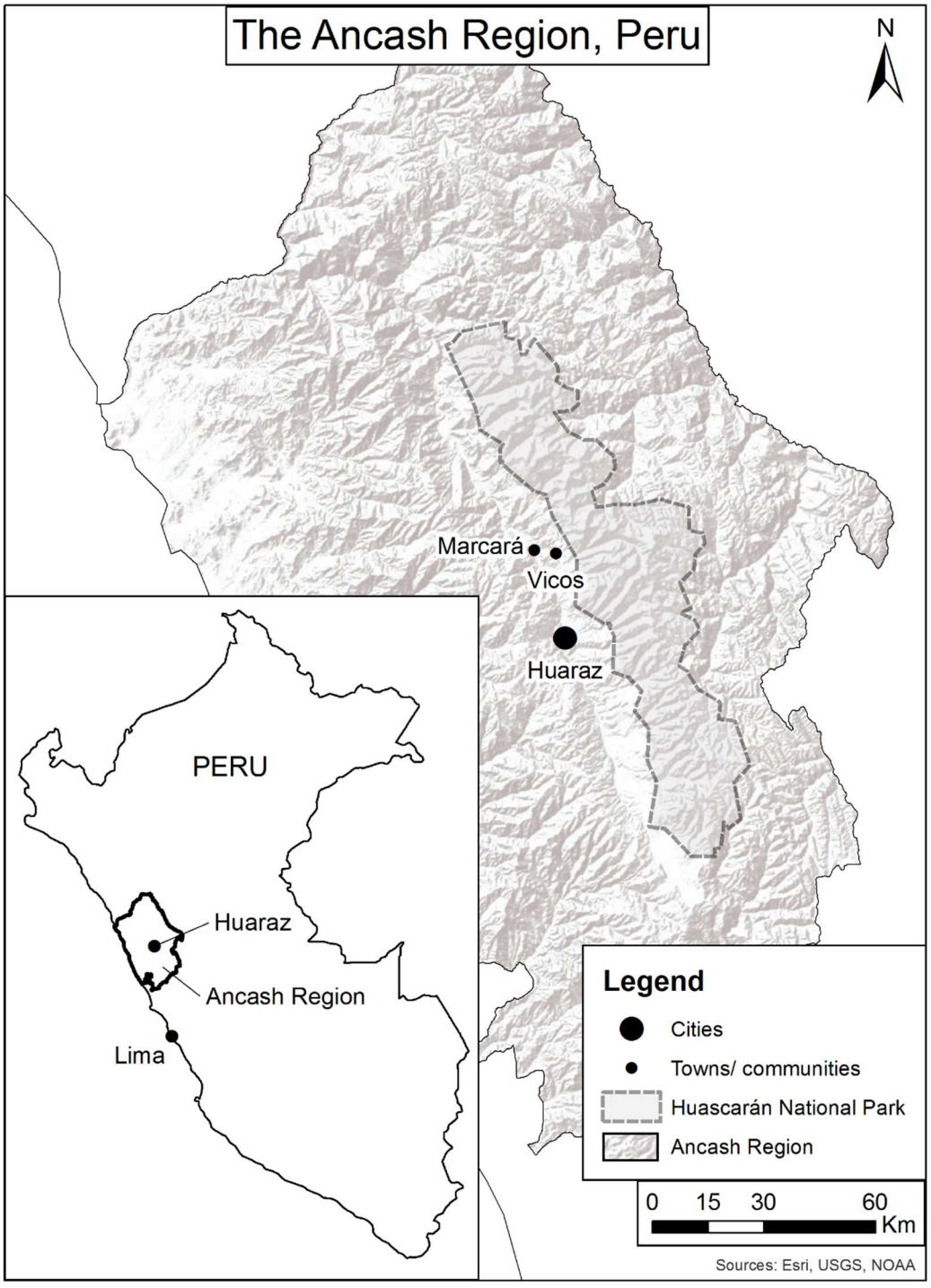

Figure 1: The Ancash Region

Running through the center of the Huaylas Valley is the Santa River, from its headwaters at Lake Conococha to the ocean near the town of Chimbote. The Huascarán National Park (PNH) encompasses the White Mountains and contains many tributary valleys to the Santa River where campesino communities are located. On the other side of the White Mountains is another great valley, Conchucos, on the eastern side of Ancash. On the western side of the Black Mountains, altitudes drop rapidly and smaller valleys open up towards the coast.

The coast itself is primarily desert, but cities and small towns sit at the various river deltas. In the lower valleys and in irrigated fields along the coast, crops such as rice, soybean, sugar, cotton, and vegetables are grown for export. Cultivation in the high altitudes is conducted at a smaller scale and includes crops such as potatoes and other native tubers, maize, grains, legumes, with some vegetables and fruits, often for subsistence as well as for commercial purposes. Cows, pigs, sheep and other livestock are kept by household farms and communally by campesino communities.

In Peru, the year is divided into dry and wet seasons, with the dry season being May through October and a wet season from November to April. Rains in the wet season turn the Black Mountains a verdant green, and campesinos living there grow crops fed by rain and water springs. Along the White Mountains, irrigation systems channel melting glacier water to many fields year-round, but rain is still important for agricultural productivity. Harvests for staple crops occurs in the dry season with potatoes (June), maize (July) and wheat (August). Besides small-scale agriculture, which is important as a subsistence practice as well as an economic industry in the area, the Callejon de Huaylas attracts tourists, both domestic and international. Many tourists frequent the PNH's more easily accessible attractions, such as Pastoruri (a former glacier that was open to public recreation until recent years), and Llanganuco (picturesque alpine

lakes). The majestic snowcapped peaks of the White Mountains, including Huascarán (the highest peak, for which the park is named) also attract trekkers and mountain climbers from around the world, and during the dry season a small community of climbers establishes itself in the hostels, restaurants, and nightclubs in Huaraz.

Most of my research took place in the Huaylas Valley, particularly in Huaraz, Marcará, and Vicos. The capital of Ancash is Huaraz, which is located at the higher altitude end of the Huaylas Valley. Huaraz is home to the regional government offices such as the local energy and mining office (DREM), the environmental health office (DESA), and the natural resources offices of the region (e.g., GRNYGMA). The office for Huascarán National Park is also in Huaraz. Heading northwest down the road from Huaraz and along the Santa River one reaches Marcará, a smaller town that is home to Uprichallay's headquarters just 26 km from the capital. Turn northeast on a smaller road and one soon passes Chancos, a commercial hot springs run by the community of Vicos. Continuing on, one quickly runs out of pavement and arrives at the Vicos plaza, about 7 km from Marcará

Continuing further up into the hills from the Vicos plaza, one encounters a series of switchbacks and eventually the gated entrance to the Honda Valley (*Quebrada Honda*), a narrow ravine that extends deep into the White Mountains (Figure 2). The Honda Valley is where Vicosinos pasture large animals, such as horses and cows. Small, polymetallic mines operate as well, and their trucks rumble in and out on the long dirt road that passes through Vicos. There are a few crops planted in higher altitudes, and Vicosinos occasionally harvest native plants for medicinal uses and, much less frequently, hunt. High altitude glacial lakes feed into the Honda Valley River along the valley floor, beginning with lake Winoyo at the far end of the valley. The

river becomes Vicos River as it descends to the community and then passes Chancos, joining another river to become Marcará River, which flows into the Santa River.

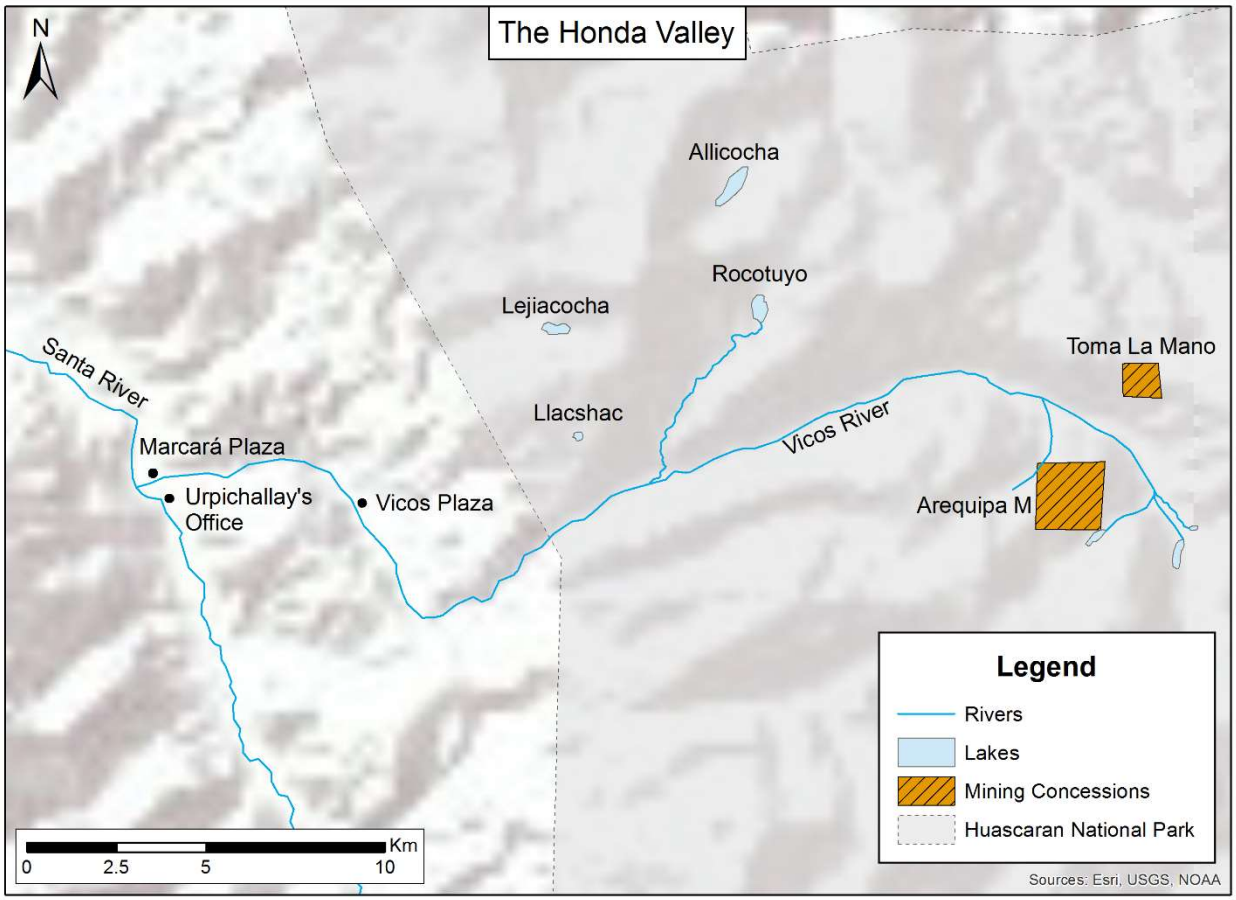

Figure 2: The Honda Valley

Entrance to the Honda Valley is gated, and controlled by a Vicosino who has been appointed to stand guard by the community. The Vicos government seeks to keep track of the mining trucks going in and out, and will stop traffic completely should relations between a mine and the community turn sour. There is also interest in keeping PNH officials out of the Honda Valley. which is long and narrow and difficult to access any other way. The community has tense relationships with the PNH officials, whom they see as a threat to their autonomous control over

their lands. The Vicos plaza and urban area of the community is only in the buffer zone of the park, but the Honda Valley—which belongs to Vicos—extends deep into park territory.

Environmental Concerns in Ancash

Mining is a key industry in Ancash. Large open pit mines as well as smaller artisanal mines exist throughout the highland areas, extracting a variety of metals and substances, including silver, copper, and zinc. In 2010, there were 31 legal mines in operation and 55 more in exploration in Ancash (Ministry of Energy and Mining 2010). In the Huaylas Valley, concerns about pollution from mining encompasses a broad spectrum of different kinds of impacts. Problems include the degradation of water sources, impacts on flora and fauna, noise, air quality, and accidents such as spills. Because of the long history of mining in the area, abandoned mine sites also mark the landscape in the rocky altitudes with still-open shafts and piles of exposed tailings. Rust-colored water flows from some of these like oozing wounds. Old mines operated when state control was minimal and often unenforced, and no environmental controls were used. Contemporary mining often occurs near these sites, so the impacts from active mines are difficult to distinguish from those of nearby abandoned mines which were never subject to environmental control laws. There are indirect causes of pollution from mining as well. Trucks on dirt roads kick up large amounts of dust, choking both people and crops. Human waste and refuse are a problem due to lack of facilities at small, informal mines.

Mines vary not only by size and exploitation technique but also degree of legality. The Peruvian State's minimum requirements for legal mining are: 1) possession of a concession title, 2) payment of an annual validation fee (*derecho de vigencia*), and 3) completion of an annual tax return (*declaración annual*). Legality is thus a status that begins with a formal mineral

concession and is maintained through the payments to the state on a yearly basis. Any mining operation that does not meet this minimum requirement is “illegal” and seen as adversarial to the state (Ministry of the Environment 2013).

When the PNH was established in 1975, pre-existing land rights were grandfathered in. These include campesino land rights and mine concessions. Thus, there are legal mines operating inside the Park that are subject to additional checks for environmental impacts by Park officials. However, there are also mine sites within the park that were never formally registered with the state, and these have in some cases been reopened as informal mines.

Illegal mining is a problem in Ancash, and government officials at the PNH office and elsewhere often explained that legal mining is beneficial to the region while illegal mining is a bane to be eradicated. Legal mines pay state taxes and control their environmental impacts through Environmental Impacts Studies (EIAs) that the law requires them to file. Illegal mines flout both economic and ecological responsibilities to Peruvian society. However, it is sometimes the case that a mine company goes through some, but not all steps to establish their mine with the state and then languish in a “formalization” process. Many legal mines have not completed the required permissions for environmental certification or water use (Ministry of the Environment 2013). Further, some mine operators have an EIA on file with the state, but it is unclear whether they are implementing it. There are thus “legal” mines that meet some, but not all, requirements of the law.

Mining is not the sole source of pollution in Ancash. Pesticides are widely used in farming and are sometimes applied excessively. Waste disposal is a common issue in rural areas and in the highlands I saw farmers burn refuse or dump it in a nearby rivers. On the winter solstice, especially, people throughout the Valley would burn trash, yard waste, and entire fields

of dried grasses, filling the air with a haze of noxious smoke. The reasons for this annual burning were multilayered. It had roots in a ritual practice among campesinos who would burn organic wastes to ensure future productivity. But the practice had come to include burning large amounts of trash, including plastics, and city dwellers were taking part, too. A campaign by CONAM (Consejo Nacional del Medio Ambiente) was eventually successful and during the solstice of 2010, the air was clear. The burning tradition continued to be practiced in the highlands, but with small fires in household fields.

Besides pollution, climate change and water scarcity are two interrelated issues that also connect to water quality. While the visibly receding glaciers on the White Mountains generate anxiety, the meltwaters are still plentiful in volume during the dry season. Due to growing population and industry demand for water, sufficient water for irrigation and drinking were problems in many places, however. By 2010 the community of Vicos had just established a turn system for irrigation to address growing conflicts among comuneros over water. There were also shortages of potable water[7] in central Vicos, which also came from highland water sources, and Vicos authorities were investigating ways to increase both irrigation and potable water volume.

In the Black Mountains, glacier meltwaters are absent so people rely on lakes and rivers, water springs, and rains. Climate change affects all of these, but in ways that are not yet fully predictable. In the context of mining, it is difficult to determine the exact cause of specific cases of environmental degradation. Springs may change chemical composition because of nearby mining activity, but they might also show increasing mineral content as a result of geologic

[7] The designation 'potable' in this case is somewhat lenient, since these types of catchments were usually groundwater that was run to individual houses or schools in pipes. Some systems had treatment reservoirs and some did not. Rather than being tested and treated regularly, Vicos authorities followed generic instructions from health workers to intermittently 'shock' the water with chlorine to kill bacteria.

changes that are unrelated. In the White Mountains, the receding glaciers expose mineral rock to wind, rain, and running water. This increases minerals leaching into rivers and groundwater independent of mining.

Mining impacts and other kinds of pollution thus overlap and blur together into problems that are far more widespread and larger in scale, such as lack of infrastructure for waste water and solid waste disposal, and climate change. It should be clear, given this context, that "conciencia" can mean many things. Campesinos who throw trash into rivers instead of collecting it for trash management trucks are seen as lacking conciencia by those who live downriver. City dwellers who practicing burning traditions in urban contexts are seen as lacking conciencia for polluting the air in the valley. And while mines of all sizes are frequently accused of lacking conciencia for many reasons, state officials see some of the largest mines as examples of good conciencia while smaller illegal mines lack it.

A variety of actors in state and private institutions, as well as nearby urban citizens, construct campesino populations as lacking conciencia, especially when damage to the National Park and pristine high-altitude water sources such as lakes, glaciers, and springs are attributable to them. Rural villagers degrade the environment through the improper disposal of waste, the over-use of toxic agricultural inputs, participation in illegal mining, and infringement on protected areas for grazing and cultivation. Rural areas are thus targeted by a range of actors—both state and NGO—attempting to address a wide range of environmental problems there by getting villagers to behave differently in relation to nature. This forms an important part of the context within which idea of training environmental promoters in campesino communities gained traction in Ancash. Trained promoters could encourage their fellow villagers to be better environmental citizens. Environmental committees would also increase vigilance over nearby

mines in ways that made sense from a state regulatory standpoint: they could report spills and illegal activity, testing water using scientific techniques. Trainees, however, had their own reasons for getting involved and did not come to reflect these priorities in a straightforward way. Further, there was another important aspect of this context which focused specifically on the governance of mines.

Economic Neoliberalization in Peru and Resource Extraction

From the 1960s through the 1990s, Peru's political context was one of economic and social upheaval. President Juan Velasco's military government (1968-1975) created a new social order by nationalizing industries, undertaking widespread land reform, and implementing new social programs. By the early 1980s, a series of economic crises threatened the country with collapse, and then-President Alan Garcia (1985-1990) implemented a new set of macroeconomic reforms to restore the social order, which included nationalizing banking and defaulting on international debts. This, in turn, triggered out-of-control inflation rates. By the 1990s, the economic state of the country was further embroiled in crisis due to insurgency violence by the Shining Path *(Sendero Luminoso*) communist uprising (Bury 2005)

Alberto Fujimori's semi-authoritarian administration (1990-2000) was a turning point for Peru in several ways. First Fujimori's drastic structural adjustment policies transformed Peru's economy again, this time in line with the economic principals of neoliberalization. Fujimori's efforts to liberalize the economy were intended to to stabilize the country and control inflation, and they reduced state costs while increasing privatization affecting over 200 state-owned companies (Ioris 2012). To entice international investments, Fujimori set low mining tax regimes in 1993, exempting companies from royalty payments and delaying any tax on profits (30%)

until initial investments were recuperated; he also signed a fiscal stability agreement that prevented future changes to these policies without company consent (Arellano-Yanguas 2011). This, combined with his success in suppressing the Shining Path insurgents, made the country attractive to foreign investors. Mining industries expanded rapidly in Ancash and throughout Peru over the next two decades.

Following Fujimori's regime, national parties pursued decentralization as part of a reform process while at the same time, democratic leaders tended to follow the economic austerity patterns that Fujimori began, continuing, for example, with fiscal policies and liberalized trade to promote investment and economic growth. In 2002, under President Alejandro Toledo (2001-2006), Peru passed a law to decentralize decision-making by creating "regions" as a new tier of elected government coinciding with Peru's departments (administrative centers throughout the countryside) (Arellano-Yanguas 2011, 621). These subnational governments would become direct recipients of mining rents. In 2006, President Alan Garcia (2006-2011) negotiated an agreement with mining companies that involved voluntary contributions through private trusts to be spent in the regions where mines operated.

By 2010, Peru was ranked first supplier of silver and second of zinc on a global scale, while Ancash was the top national supplier of copper and zinc, and second top supplier of silver in Peru (Ministry of Energy and Mining 2010). As mining investments increased, mining became an increasingly hegemonic mode of pursuing "development" for Peru—both in terms of its economic performance nationally and for its marginal populations. The austerity measures began when Fujimori led to improved economic performance by international measures, but poverty and inequality in the country had increased (Arrellano-Yanguas 2010). Himley (2014) argues that mining industry proponents deployed the country's long history of mining to frame

extraction as an "ancestral" activity that is also central to current national identity and development (179). These narratives framed critiques of mining as anti-development and unpatriotic.[8] Further, the new rhetoric of 'modern' mining in Peru promised to contributions to local communities as well as to protect the environment, unlike the damaging, irreverent mining practices of "the past" (Himley 2014; Li 2015).

Although mining has a long history in the Andes of Peru, until recently there was little environmental oversight or legislation of mines. In 2003, new mine closure requirements were adopted obligating companies to include plans of ecological mitigation to rehabilitate the land after mining ceased. Further, Environmental Impacts Studies (*Estudio de Impacto Ambiental*, or EIA) were required to be presented locally, not just in Lima. The increases in participatory approaches incorporated into the new laws affected the environmental regulation of mines. Li (2015) argues that the participatory processes of the EIA created collaborative relationships among state agents, corporations, NGOs and communities that strengthen the legitimacy of mine's version of environmental protection and circumscribe the spaces for opposition to a proposed project.

Other forms of administrative restructuring changed the way the environment was governed as a resource at both central and regional levels. In May of 2008, Garcia created the Ministry of the Environment (*Ministerio del Medio Ambiente*) through an executive order to be the new national institution in charge of supervising environmental governance and conservation in Peru. The regional counterpart to MAM was the "Natural Resources and Environmental

[8] See Alan Garcia's essay "El síndrome del perro del hortelano" (Garcia 2007) in Peru's newspaper El Comercio. The essay refers to the fable of the 'dog in the manger': the dog does not allow others to eat, yet does not partake of the garden himself. The essay positions Peruvians (indigenous people as well as environmentalists) who block resource extraction as standing in the way of progress, and argues for changing land restriction laws to capitalize on resources such as minerals, timber, commercial agriculture.

Management" office (*Gerencia de Recursos Naturales y Gestion del Medio Ambiente*, or GRNYGMA), in charge of implementing the legal norms and policies which MAM developed. The National Park system (The National Service of Natural Protected Areas, or SERNANP) was also subsumed under the new responsibilities of MAM. Both GRNYGMA and SERNANP offices in Huaraz implemented norms of MINAM, but with separate areas of authority.

In 2009, a new water law brought a National Water Authority in to being, with the mission to conserve, protect, and utilize water resources in a sustainable manner. A regional office, the Local Water Authority, was established in Huaraz and began the process of supervising water uses in rural areas. In 2010, responsibility for supervising small to medium sized mines had recently devolved to the Regional Direction of Energy and Mining (DREM), the regional unit belonging to the Ministry of Mining and Energy. When I interviewed the officials at these various agencies in Huaraz, they emphasized that decentralization was a process and their coordination among each other was sometimes less than perfect. The context of state-level supervision of mines, water, and the environment itself were in flux as responsibilities were transferred to the region, and policies were not consistently put into action.

Canon Minero (Mining Rent Distributions)

In the few years prior to my long-term fieldwork, the region of Ancash began to collect an impressive amount of capital through *canon minero*, or the transfer of mining rents to the territories where mines operate for the purpose of encouraging livelihood improvements and infrastructure development. In 1992, 20% of income tax paid by mines was directed to the territories where the profits were generated. In 2001, this amount was raised to 50%, and then in 2004, new legislation increased financial transfers even more. Mineral prices also surged in the

late aughts, and because mining rent amounts were contingent on mineral prices the transfers to regions increased dramatically: 13-fold over a period of three years, between 2004 and 2008 (Arellano-Yanguas 2011, 623).

In 2010, canon minero transfers to Ancash totaled S/. 853,496, 523.01 (over 260 million USD). This amount was less than in previous years, for example S/. 1,305,360,044.51 (398 million USD) and 926,526,393.35 (282.5 million USD) in 2008 and 2009 respectively. Further, these amounts do not include additional contributions some mining companies voluntarily make. Ancash's *Regalia Minera* (gifts from mining) in 2010 alone totaled S/. 3,554,354.04 (over 1 million USD) (Ministry of Energy and Mining 2010). Transferring rents directly to regions and municipalities was intended to help create development opportunities in the regions and territories where mines worked. Mine companies, who in a large part supported these new transfer arrangements, also hoped that it would quell unrest from local people and reduce criticisms of the mines. However, these large transfers did not bring the desired effects. Arellano-Yanguas (2010) argues that canon minero funds were used inefficiently by regional governments and conflicts surged. After analyzing all the conflicts between 2004 and 2008 registered in the *Defensoría del Pueblo* of Peru (Peru's Ombudsmen Office), he found that conflict was more common in mining localities following the commodity boom as canon minero transfers increased rapidly to mining localities. Between February 2004 and September of 2008, conflicts directly related to mining increased threefold, and over time, new conflicts were added and old ones unresolved (Arellano-Yanguas 2011). By 2009 social-environmental conflicts constituted 42% of all nationally registered conflicts (Preciado Jerónimo 2011, 181).

These new mining extraction relationships had thus increased conflicts while entrenching localities in a mining hegemony that was hard to resist. Through canon minero managed by

subnational governments, mines funded public works projects throughout Ancash and paid for salaries of some municipal employees. Elected officials in regions and municipalities allocated large sums of money to projects and had new incentives to work cooperatively with mining. Many large mines also "voluntarily"[9] funded new buildings, infrastructure, job training and even some kinds of conservation initiatives in the areas they impacted.

In Ancash, the largest and arguably most influential mine is Antamina, an open-pit poly-metallic mine that produces copper, zinc, molybdenum, silver, and lead. Compañía Minera Antamina is one of the largest and most productive mines in the world.[10] The company is organized under Peruvian law with shareholders spread across the four global mining industry leaders.[11] Antamina entered production in 2001 and is located 200 km from Huaraz in the Huari province of Ancash. Although Antamina operates in the Conchucos valley, (with a shipping port in Huarmey, a coastal town) its influence is felt across Ancash, not only because of its contributions to canon minero but because of its elaborate Corporate Social Responsibility (CSR) program. Antamina operates its own NGO located in Huaraz, Association Ancash, dedicated to resource conservation, tourism, and culture. Social and cultural events in Huaraz carry its logo. The mine also funds conservation projects led by other NGOs and distributes gifts to campesino communities, even those outside of its area of influence. Antamina's programs affect a large number of people, but at the same time there are ongoing conflicts and criticisms of the company by those negatively impacted.

[9] "Voluntarily" means they are not required to do so by Peruvian law. However, they were likely under pressure to do so for political reasons or as community relations strategies.
[10] According the company's website, with current investments from expansion it represents an investment of 3.6 billion and continues to be one of the ten largest producers by volume in the world. The company also claims to be the third largest mine in the world and the fifth most profitable (Arellano-Yanguas 2010, 42)
[11] BHP Billiton (33.75%), Glencore (33.75%), Teck (22.5%), Mitsubishi Corporation (10%) (Antamina 2017).

Growth of the mining industry, the boom in mineral value, canon minero, and CSR are the conditions creating a context where mines are more deeply involved in both governance and development work in dramatic new ways. This new era of mining has transformed what is possible and what is imaginable. Residents also understand that mines do not last forever. Mines eventually run out of minerals and close. Or, mineral prices might drop, causing canon minero projects to halt. Amid the uncertainty of what their lives will be like when nearby mines have closed, residents and politicians seek to take advantage of the opportunities they present in the moment.

The Rise of Environmental Committees

Increases in mining have also created the impetus for new kinds of civil society groups to form. Vigilance committees proliferated across Peru in the past few decades. In 2008 there were 37 environmental vigilance committees (*comites de monitoreo y vigilancia*) in Peru, and 17 of them were located in Ancash, more so than in any other single region (Lopez Follegati 2010). Ancash was also the only region to have organized a network organization (RRCAA) of committees that participants used to share their experiences and collectively seek resources to offer training and encourage more participation in vigilance committees.

Lauded by industry proponents for increasing transparency and actively incorporating civil society, these committees vary widely regarding who participates, who funds their activities, and how technically involved they are in environmental monitoring. Some committees were created through an NGO initiative with funding from international donors, while other committees worked more directly with mines and relied on mines for funding. The availability of funding for conservation-related projects from mines shapes these opportunities, as well as the

incentives for participating. Some committees send local citizens and civil authorities to accompany mines during environmental testing and oversee the dissemination of test results.[12] This "participatory monitoring" is embraced by mining companies that seek good community relation and transparency in environmental practices. Other committees conduct parallel testing by taking their own samples and sending them to different labs, paying for these additional tests with money provided by mines. These efforts further reflect moves away from the "top down" approaches in environmental governance, towards more citizen participation and decentralization.

During a national encounter of Peru's environmental committees in 2008, further steps were taken to define the role for environmental committees. A set of recommendations was published following the meeting recognizing the diverse origins of committees (some began as an initiative by a mine company, others by a community, or as an outcome of a conflict resolution agreement). Despite their different potential origins, the recommendations emphasized the function of committees as "helping" state authorities and "verifying" environmental impacts of industry through technical means (Lopez Follegati 2010, 10). Different forms of public monitoring have thus been embraced by the industry and non-industry actors alike as a way to extend the regulatory gaze of the state and avoid misunderstandings and false accusations of contamination. The hope is often that vigilance committees will help solve environmental conflicts (Himley 2014; Recharte et al 2002). However, this hope is based on an assumption that

[12] Mines are not required by law to share results of their own environmental testing and monitoring with surrounding communities. They must file this information with the corresponding state offices, and anyone can access it due to transparency laws. However, there are barriers to accessing this information for people from rural areas, including mobility issues, time, language barriers in some cases, and bureaucratic savvy in navigating state offices. Although campesinos do successfully access this information, they must sometimes seek further technical interpretation in order to understand the testing results. In some cases, mines voluntarily share the results of their testing with the public and assist in interpretation.

sharing scientifically credible information more broadly will sufficiently bring diverse actors into mutual understanding. Instead, research reveals that the nature of knowledge is part of what is contested in socio-environmental conflicts (Himley 2014, Li 2015). Groups sometimes engage in networks based on different underlying conceptual understandings (Kirsch 2006).

Sites of Environmental Promotion

In 1999, the president of the campesino community of Vicos knocked on the door of Urpichallay and asked for help with suspected water pollution caused by small polymetalic mines in the Honda Valley. A worrisome indicator was the death of the trout in the Vicos river. Urpi and TMI both responded to the community's concerns. The resulting project was Agua Para Siempre (Water Forever, or APS), funded by USAID, which assessed the water quality in the Honda Valley, trained Vicisinos, and opened up dialog between nearby mining operations and the community. At that point, few community members were working in the mines and there was no contract between the mines and the community. With the facilitation of the NGOs, a new form of environmental stewardship began in Vicos, one that centered on dialog with mines, low-tech testing and mitigation, and the empowerment of a community through a subset of individuals who were trained to be environmentally knowledgeable leaders—the environmental promoters. Environmental promoters created one of the first environmental committees in Ancash in 2001. The community began negotiating superficial land use contracts with the mines, offering land use rights to the mines in exchange for a benefits package.

The Honda valley has 23 old mining sites, some of which date at least to the colonial period (Montes Mallqui 2002). Eleven concessions were registered in for mining, and at the time of APS, three of these were being exploited (Recharte et al 2002). These were Toma la Mano 2,

Arequipa-M, and Garrosa. Because these concessions predated the creation of PNH, they were legally allowed to operate within park boundaries. The mines operate by removing rock and transporting by truck it to processing plants located elsewhere. At the time of APS (2001), Toma La Mano 2 was producing 60 tons of mineral daily and Arequipa-M 40 tons. Both operators had EIAs and Arequipa-M was undergoing expansions (Recharte et al 2002, 37). Garrosa operated at a much smaller level, extracting 10-15 tons daily.

In subsequent years Urpi went on to train more environmental promoters, including more Vicosinos as well as individuals from communities, funded by Canadian Lutheran World Relief (CLWR). When I refer to "environmental promoters," I speak of these individuals trained in environmental vigilance techniques during APS or through the subsequent projects led by Urpi. I go into more detail about the nature of training in the next chapter, but in general environmental promoters acquired skills testing and interpreting water quality using field kits as well as other low-tech methods of environmental assessment, such as bio-indicators. Through training, promoters learned scientific concepts and techniques while also applying local knowledge and analyzing relevant social issues related to environmental well-being.

In June of 2010, I began living in Vicos for my dissertation research. At that time, Urpi had just finished training 12 promoters from a variety of communities in a multi-week training course and was about to begin another series of eight all-day workshops offered in their auditorium.[13] Vicos' relationships with the two larger mine companies were complicated and dynamic, and reliance on mines for employment and community funding had increased. Toma la Mano 2 and Arequipa-M were both operating as "small" sized mines (up to 350 tonnes of material excavated per day, and 2,000 hectares of area), which meant that they were supervised

[13] According to Urpichallay's 2009-2010 annual report for Agua Viva, 12 promoters completed the training course. Attendance at individual training events varied from 11 to 23 individuals.

by regional authorities rather than the Ministry of Energy and Mining in Lima. Toma la Mano 2 was operated by the company Toma La Mano, the same company that operated during APS, and Arequipa-M by the company Caudalosa, which had assumed operations in 2005. There were also other smaller mines excavating in the valley, and most of them were illegal.[14] Relationships with these were managed on smaller scales with subgroups of Vicosinos.

Vicosino relationships with mining reflects some aspects of everything I described above about Ancash regarding the new relationships between mining, development, and governance. Vicosinos looked to mines to help with community development projects, and those seeking wage labor in Vicos increasingly found employment in the mines. They also accused mines of contaminating them, and conflicts with mines were frequent. The elected CC leaders in Vicos focused on managing relations and agreements with these mines via the general assembly of the community where the most authoritative decisions over resource use are made.

The importance of the environmental promoters and the Vicos environmental committee changed over the years as relationships with mines have changed. I found that most promoters considered themselves 'retired' and others experienced chronic frustration when trying hold meetings to perform basic bureaucratic functions like electing officers. The promoters were no longer regularly testing the water in the Honda Valley or reporting the results in the community assembly. Shifts in the campesino community government operations and relationships with mines over the years created new opportunities which eroded the support of the promoters in Vicos. I describe this situation more at length in Chapter 6.

[14] At the time of my research, all informal mines operating in the National Park were considered illegal, and their closure was imminent. However, new legislation passed in 2012 and 2013 which distinguished between informal and illegal mines, with the former being mines that could be formalized by the state if the correct steps were taken. This may have changed the approach for addressing some of the informal mining in the Honda Valley.

Urpi had encouraged promoters from elsewhere to form "environmental committees" within their own localities, and many of them did. Committees were intended to institutionalize the newly-created roles and expertise of promoters, and create a formal basis through which promoters could, on behalf of their communities, engage with mines, government offices and authorities, and their own fellow villagers in ways that would improve environmental protection and accountability and ultimately protect nature. The environmental committees that emerged were widely varied groups of citizens (sometimes with the participation of other institutions, mine operators, and local authorities, but sometimes not) who came together for the intended purpose of protecting nature in some way within their locality. Although vigilance over mining was a major motivation for creating an environmental committee, committees engaged other issues such as solid waste disposal. By 2010, Urpi was working with 10 environmental committees and attempting to form three more in localities where they were training promoters.[15]

Vigilance committees that formed elsewhere through other local initiatives, NGO efforts, or as outcomes of conflicts with mines were also increasing. When committees from all over Peru met in 2008, they formed a nationwide network. In Ancash, committees that worked with Urpi and some that did not, also came together in 2008 to form The Regional Network of Environmental Committees of Ancash (*Red Regional de Comités Ambientales de Ancash,*) otherwise known as RRCAA. Urpi supported RRCAA by offering their meeting hall for monthly meetings, covering costs for those who traveled from out of town, and providing technical assistance. I observed the formation of RRCAA in 2008 and accompanied their activities during 2010 and 2011. This third site of my research was a place where diverse levels of training and

[15] The 2009-2010 annual report on Agua Viva lists environmental committees of Shilla, Tumpa, Aquia, Aija, Huarmey, Jangas, Vicos, Huallanca, Huashao, and Tinyash, noting that Shilla, Tinyash, and Huashao were "in progress."

different ‘local’ experiences came together to define a common agenda. When I refer to “RRCAA members,” I mean individuals who attended RRCAA meetings as representatives of their local environmental committees. RRCAA members included both campesino community members and urban dwellers, professionals (such lawyers and engineers) and farmers. While not all RRCAA members were trained by Urpi as promoters, they all came to have a relationship with Urpi through RRCAA, and in turn Urpi influenced RRCAA activities.

Methods for Identifying Environmental Subjects

Environmental subjectivity presents a methodological problem to be solved. How does one identify who is, and who is not, an environmental subject? Subjectivity is difficult to measure, and the effects of different subject making efforts are hard to assess, even over time, because these do not occur in controlled environments but in the context of competing discourses and incentives (Postero 2007, 184). People’s inner sense of themselves is ultimately unknowable and we rely instead on interpreting the things they do and say (Jackson 2005). Scholarship on environmental subjectivity has addressed this problem through both quantitative and qualitative methods. In some case studies, interviews or surveys quantified degrees of agreement with environmentalist positions or amounts of knowledge (e.g., Agrawal 2005; Jepson et al 2012; Snodgrass et al 2008). Agrawal’s approach exemplifies this, as he used questionnaires which used a likert scale to assess villager attitudes towards environmental protection efforts, and compared trends across different village resource protection arrangements. While this approach allows the consideration of large amounts of individuals and quantifies their subjectivity in an insightful way, it also relies on self-reported attitudes without really probing the surface of why the subjects themselves feel the way they feel, and without considering whether expressions of these attitudes might be shown to differ via other methods.

Another method is through long-term ethnographic engagement which allows the research to make more nuanced interpretations of environmental subjectivity after observing behavior and expressions of knowledge and opinion across different settings (e.g. Cepek 2011; Singh 2013). I agree with Cepek, who argues that "only concrete studies of 'interrelations among written plans, official pronouncements, off-the-record comments, and observed social practice' (quoting Kipnis 2008, 285) can determine the degree to which governmental programs alter local subjectivities" (505). My methods employ a similar ethnographic strategy in which I used multiple methods to assess the extent and ways in which people were expressed an environmental subjectivity. However, I found that there was sometimes inconsistency between word and action, or a tendency to behave or speak about things differently based on the context. For this reason, I began identifying the more specific discourses people linked to their claims about 'conciencia', to show the complexity of subjectivity and reasons why environmental subjects appeared to be so inconsistent and partial.

The three sites of Vicos, Urpi, and RRCAA, formed the core of my ethnographic research. Their entanglements illustrate both the divisions and blurred boundaries that occur when 'civil society' members work together on environmental protectionist and resource vigilance efforts. They presented an opportunity to examine otherwise concealed differences across people's interests and motivations in protecting nature. In the following sections I go into more detail about nature of the different sites of this research, and the methods I used to capture the different ways people claimed and embodied conciencia. This dissertation provides examples of interactions and actors across these sites, tracing how specific environmental discourses are deployed and reinterpreted within them and between them and the other institutions with which they interacted.

The NGO Urpichallay

Asociación Urpichallay plays an important advocacy role for diverse citizens, but especially for campesinos. Founded in 1991 by Fermina Rojas, a sociologist from Cajamarca, this NGO began working in the greater Marcará area in 1995, focusing on agriculture, environment, health, and education. Shortly after, Urpi began working with Vicos, the campesino community just up the road from Marcará. I first visited the NGO's office in 2004 because, while conducting Master's research on tourism in Vicos, Vicosinos had shown me photographs of their participation with Urpi during my interviews with them (Kalman 2005). At that point I spoke to Fermina, who explained that while the NGO's projects are diverse in nature (including midwifery, organic farming, biodiversity, education, and of course water monitoring) the basis of all projects is the affirmation of Andean Culture and campesino views of the world.

During North American summers in 2007, 2008, and 2009, I conducted pre-dissertation research in Ancash on the relationships among NGOs, state organizations, and campesino populations in issues of environmental conservation. Agua Para Siempre was well-known at this time around Huaraz and was perceived positively by those interested in environmentalist development. Both Urpi and TMI initiated Agua Para Siempre, but TMI was focused elsewhere while Urpi remained strongly involved in environmental promotion. Urpi continued to work in ways modeled on Agua Para Siempre by creating environmental promoter committees elsewhere in Ancash. Vicos promoters were also involved as an example for these other communities, and Urpi organized encounters where environmental committees from different places could share with and learn from Vicos. It was also clear that an idea of "culture" was influencing how NGO and State workers understood campesino resource use, and Urpi's institutional focus tackled this issue head-on by making the cultural differences of campesinos explicit in their work (Kalman

2011). The questions driving this dissertation evolved from my original interest in these dynamics, regarding how NGO projects shape ideas of indigenous culture in relation to the environment and its protection.

My ethnographic research focused most broadly on Urpi's activities for four months in 2008 (May through August) while I was simultaneously studying Quechua in the area, with employee interviews in 2007 and participant observation during workshops in 2010-2011. During 2008, I conducted participant observation at various Urpi activities and interviewed most employees. At that time there were ten staff, plus the leadership, which included Hugo (Director) and Camila (gender and education specialist) and Fermina I interviewed the seven technical field staff, including specialists who trained campesinos during projects and field technicians who performed the labor of collecting data, coordinating and setting up meetings, and accompanying promoters in project related activities.[16] My Quechua instructor, Martin, was hired full time by Urpi in 2008, and I interviewed him as well. I did not interview Fermina, who was not acting as director at that time and did not participate in my research throughout.[17]

Ethnographic Research during Agua Viva

When I began my 18 consecutive months of research in 2010, two main projects were underway at the NGO. One focused on agro-biodiversity and food security, and the other on environmental protection. This second project, titled "Living Water: Strengthening capacities

[16] I did not interview the two secretarial employees or the accountant.
[17] Fermina was still actively involved in Urpichallay's activities in Agro-biodiversity support, but she declined to participate in my research. The NGO also had a board of directors, with Fermina being one of them, with which I had no formal contact.

and the participation in local organization for environmental oversight and climate change[18]" or *Agua Viva* (Living Water) for short, was the most recent in a series of projects funded by Canadian Lutheran World Relief (CLWR) that built on the work begun with Agua Para Siempre.

The project had a large educational component, working with schools and teachers to support curriculum development and class activities, such as recycling and composting. The project also worked with families and barrios directly on interventions such as tree planting or water spring restoration. Finally, the project included promoter training and the creation and strengthening of environmental committees. During 2010 and 2011, I focused on the promoter-related aspects of Agua Viva. I attended staff meetings, when invited, the training workshops for promoters and accompanied staff on visits to communities. The technicians in team Agua Viva included Vicente, who was himself a Vicosino comunero and original promoter from Agua Para Siempre, and Nestor, who lived in Marcará. Both spoke fluent Quechua with villagers and participants. Hugo led team Agua Viva, overseeing the administrative aspects and providing training and advocacy to committees. Camila and Martin formed the educational team, working with the schools and participating students, parents, and teachers.[19]

The promoter training course I observed consisted of capacity-building workshops held on weekends, and I became a regular participant at these meetings, taking notes while engaging in the activities with the promoters. I attended a total of ten: all three offered in 2010 and seven in 2011.[20] These workshops were structured such that participants (which included campesinos,

[18] Full title: "*Agua Viva (Yacunzaqkawanmi): Fortaleciendo Capacidades y la Participación en la Organización Local para la Vigilancia Ambiental y el Cambio Climático*." It was funded for 2008-2013 with 220,000 USD from Canadian Lutheran World Relief.
[19] I did not focus participant observation or interviews on the education aspect of Agua Viva, which was conducting in schools with teachers and schoolchildren. I did visit some schools in the company of NGO staff, and reviewed NGO records of this aspects of the program.
[20] I left the field before this course ended in 2011

university students, and teachers) shared their own experiences and ideas with each other throughout, and since many of the workshop participants were also members of environmental committees, I learned more about the activities of these committees during this course. My ethnographic research with promoters extended beyond these workshops as well. Promoters were curious about me and happy to engage in conversations, and I sometimes accompanied them on outings or to projects they conducted in their home communities. Each participant presented a final project they conducted outside the classroom. Similarly, my last 'class' before I left the field included a presentation of my own preliminary research results. In that moment I felt that I, too, became one of the promoters' trainers.

My relationship with Urpi's staff was more complex, because although I was present along with staff at many events, I was not an employee and staff members recognized that I set my own agenda. Many of the staff became my friends because of our mutual interests in environmental issues and our common critical views of development. We socialized and discussed national and local politics during downtime while sitting on the couch on the porch. Staff called my cell phone to invite me to events they thought would interest me. They invited me to their birthday celebrations and I invited them to mine. These friendships extended beyond the purposes of research, even if research was the original reason for our acquaintance. Staff also occasionally questioned me about my motivations or what I might do with the information I collected. Although this was done in a playful way, and I responded with openness about my plans, it was clear they were critical of the broader pattern of information extraction from so-called developed countries, and that they saw me as a part of that pattern. Hugo was more formal in his interactions with me and always very supportive of my presence. He wrote my affiliation

letter and vouched for me when introducing me to other organizations. Additionally, he shared institutional records with me when I requested them.

Towards the end of my fieldwork, Urpi's board of directors came to the decision to dramatically change the direction of the institution towards education and, therefore, to phase out development-oriented projects such as Agua Viva. Hugo stepped down as director as a result of this change. The new institutional focus would be to provide technical training to campesinos in different career-oriented areas, including environmental careers, but also in other technical careers such as culinary arts. Thus, when Agua Viva ended in 2013 (after I had left the field) most of the employees I knew at Urpi sought employment elsewhere.

The Regional Network of Environmental Committees of Ancash

My association with The Regional Network of Environmental Committees of Ancash (RRCAA) was formalized in 2010 although I attended the original meetings where the organization took shape in 2008. I had history with some RRCAA participants, including Elena and Alan, whom I later describe, each of whom were presidents of committees in other localities, and the Vicos promoters due to a previous network called RROLVA that I met in 2007 via Urpi.[21] Hugo assisted tremendously with my acceptance by RRCAA as well, as he introduced me formally during a RRCAA meeting and spoke favorably of my research, pointing out some ways it could be useful to RRCAA members. I presented my proposal formally at a RRCAA meeting in early 2010 and requested permission to work with them, conducting participant

[21] RROLVA was also a coalition of environmental committees, but disbanded because of conflicts with the leadership. A leader was apparently using the organization to pursue a personal agenda.

observation during meetings and events and interviewing members. I was accepted, but my relationship with RRCAA grew quite differently than did my relationship with Urpi.

RRCAA incorporated me more actively and gave me roles, both formally and functionally. RRCAA named me as an "honorary member" with "voice, but no vote." I was also called upon to record, photograph, and make short films of RRCAA events, such as workshops. They quickly assigned me to be the one responsible for composing the *Acta* (minutes) for each meeting. I found it challenging, sometimes, to balance my duties during RRCAA meetings with my research tasks. It was difficult to take notes on the meeting and also compose the Acta, since the both needed to contain specific but different kinds of information. The Acta had to be written with clear and formal language and included things like decisions made and commitments given. I was instructed to omit the details of debate and discussion, which were the most interesting parts from a research perspective.

The actual format of RRCAA's meetings were conversational and usually included roundtable-style discussions about agenda items. Members also spent a good portion of each meeting updating each other on recent events in their hometowns regarding their committees, mining activities, and problems they were having. Other members would ask questions and give advice. Thus, even when RRCAA's plans were obscure and a meeting did not produce a clear course of action, the group functioned as a peer support group for environmental committees. My participant observation focused on the statements, points, and ideas generated by members. The avenues of action that were explored but decided against were also important to document. Partway through my fieldwork I began making audio recordings of meetings in order to capture what I was unable to write down in notes during the meetings.

Since RRCAA attendance fluctuated, I developed closer relationships to some members than others. I visited several member communities over the course of my research, sometimes with other RRCAA members or with Urpi as the opportunities presented themselves. In some cases, I traveled by myself and independently spoke to community members. This was helpful for gaining a more balanced view of the dynamics of different environmental committees. I had learned from Vicos that the impression one gets from talking to promoters can be misleading, since promoters are not always representative of the views of their fellow villagers. The situations of RRCAA's committees were diverse, as is their role and functions, resources available to them, origins, actual activities and their ability to accomplish what their members wish.

Later in my fieldwork, RRCAA began to conduct workshops and events more frequently. I attended the majority. Furthermore, I conducted interviews with most RRCAA members (n=11). These explored the history of the individual committees in their home locations, their relationship (personally and institutionally) with Urpi, and their hopes for RRCAA, their visions of its potential, what they imagined the role of RRCAA to be. I also collected past Actas, as well as other documents related to RRCAA, including proposals for projects and Urpi's documentation of RRCAA activities.

The ties between Urpi and RRCAA were complex as RRCAA depended on a great degree of support from Urpi. Urpi also counted RRCAA as part of Agua Viva: they listed RRCAA as one of several environmentally-oriented network organizations that they were strengthening with workshops. The RRCAA activities they supported were also reported to CLWR funders as Agua Viva activities. Vicente's role was particularly complicated because he was as a representative of the Vicos promoter committee in RRCAA and became an elected

officer within RRCAA's leadership structure. Yet at the same time, RRCAA members saw him as an Urpi employee and called him when they wanted to coordinate with Urpi. At one point, other members tried to elect him as president of RRCAA, and Hugo told him to decline since this would undermine RRCAA's independence from Urpi in the eyes of many. From the NGO's institutional perspective, RRCAA was a grassroots organization that Urpi empowered, so RRCAA needed to be kept sufficiently independent so it did not appear that RRCAA was merely a vessel for Urpi's agenda. RRCAA members were less concerned about these distinctions.

Many RRCAA meetings were held at Urpi's office, and Hugo sometimes attended and gave advice. Members valued his views highly. At one meeting, a direction for action had already been decided upon by the RRCAA members, but after hearing their plan, Hugo recommended against it. This effectively ended the entire course of action without further discussion. I do not believe Hugo ever intended his advice to be autocratic, but RRCAA members respected the authority of his knowledge tremendously. Urpi was also their most reliable supporter, both financially and technically. Eventually RRCAA developed an agenda (spearheaded by the 2010-2011 president, Renata) that modeled their own pursuits after Urpi's: to train promoters and form new committees, and gain funding directly from CLWR and other sources to support these endeavors. My participant observation and interviews with both RRCAA and Urpi allowed me to trace the meaning of this relationship from many different perspectives, including how different discourses of conciencia shaped what actors hoped to achieve and how these were communicated across institutional lines.

The Campesino Community of Vicos

Vicos was central for Urpi's work with environmental committees because of the ten-year long relationship between the community and the NGO. Due to Urpi's focus on cultural affirmation, Urpi had been collecting information about Vicos traditions, rituals, environmental knowledge, and beliefs for years, both for affirmation (encouraging Vicosinos to continue them) and to share them across their networks with other NGOs, promoters they trained elsewhere—private and state institutions, funders, and public forums, both locally and internationally. The relationship between Vicos and Urpi was an opportunity to consider how stewardship, understanding of environmental consciousness, and Andean culture had evolved after all this time, affecting the viewpoints of different people involved. The fact that Agua Para Siempre was the basis for much of Urpi's current work, with Vicos as a model of a successful environmental committee, made this choice even more advantageous.

Vicos has a complicated positioning for questions of indigenous culture, which is central to Urpi's mission and to my questions about the content of subjectivity. People I met from other communities, NGOs, and state offices described Vicos as a place of resilience, with a "strong identity" where people still dress traditionally and speak Quechua. Others lamented that Vicos was a place that had been corrupted by "Western" ideals and had lost its Andeanness. Vicos was being marketed to tourists as a place full of traditions and culture, but without much acknowledgment of the ways that Vicosinos, as modern actors, were responding to rapid changes and engaging with national and international ideas about their culture. The different interpretations of Vicos and Andean Culture, which I discuss more in Chapter 4, point to conflicts around what counts as Indigenous (Andean), what is valuable about that identity, and who can represent and interpret it. Vicos is a place where culture is "worked on" (as when Urpi

encourages Vicosinos to maintain traditional practices) and an imagined community that people reference in their abstract understandings of indigeneity within the social landscape of Peru.

Vicos was profoundly shaped by an applied anthropology project in the 1950s and 60s. The Cornell Peru Project (CPP) transformed agriculture, expanded western-style education, allowed the community to purchase their lands, and established the basic community government structure that the campesino community still uses as well as contributing to ideological social changes more broadly (Dobyns et al 1971, Greaves et al 2011; Stein 2003; Vicos 2005). I discuss the CPP more in Chapter 6, but here I wish to note that this unique history complicates facile representations of Vicos as a "typical" Andean community. For example, what Vicosinos value about their community's traditions include practices that are more recent in formation.[22] Some Peruvians I met critiqued my choice of Vicos as a case study, arguing that this unique history meant that Vicos was not comparable to any other community. I agree that Vicos cannot be made to stand for Andean communities in general, but I am not interested in making such a broad and, in many ways, misleading claim. All campesino communities will have unique, if connected, histories. Instead, I argue that it is the specific and unique experiences of individuals like the Vicosinos I describe who, through their histories, engagements with Urpi, and their own views of their culture and environmental possibilities, challenge simplistic views of environmental subjectivity.

There were clear logistical advantages to focusing on community-based stewardship in Vicos as a case study. Vicos is near Urpi's office, which allowed me to travel easily between the two places. Vicos also had personal advantages for me because I conducted Master's research on tourism there in 2004. I was familiar with the landscape and I already knew several families.

[22] For example, the largest festival in Vicos focuses on the community's anniversary: the day they purchased their lands following the Cornell Project in 1962.

These connections helped me gain acceptance and likely impacted the willingness of others who participated in my research.

My primary connection was to a family I had met through the *Cuyaquihuayi* tourism cooperative in 2004. At that time, I became a godmother to the grandchild of Jose Avito Meza and Margarita Sanchez. During my long-term fieldwork in 2010-2011, I lived in their house and they and their extended family were incredibly helpful with things like learning how to properly solicit support from the community government, who might be a good research assistant, and navigating my way around the ten sectors. Avito was also knowledgeable about the community's history of working with Urpi, because he had been the president of the community during Agua Para Siempre. He was well known and respected among the comuneros. At the same time, not everyone in Vicos was in agreement with Avito's leadership style and no doubt some people were less likely to cooperate with me due to our association. It is difficult to fully know the extent of these impacts.

I could not help being associated with Urpi while living in Vicos. Even before I my formal affiliation with Urpi, Vicosinos sometimes asked me if I worked for them. I knew all the employees and attended Urpi organized events, and asked questions about Urpi during interviews. When I solicited the Vicos government for permission to conduct my research, I presented my affiliation letter from Hugo in addition to my other documentation. I was careful to emphasize that while I was a "friend" of Urpi's, the research that I was doing was separate from Urpi's work.

In 2010, I sought formal approval for my research from the Vicos government. Following advice from Vicente, Avito, and Pablo (another tourism leader), I wrote a letter in Spanish to the President of Vicos requesting permission to conduct my research there, and in the letter

explained that I wished to live in Vicos, solicit interviews and participants for other kinds of methods such as workshops, and that no individual person would be obligated to participate. I presented the letter the Vicos secretary, who informed me that I should appear the following Saturday at 8 am at the community locale.

I showed up as instructed and sat in a wooden chair in the back of the meeting room. The Vicos leaders, which included the *Junta Directiva* (Directorial Board), delegates from the ten sectors, and specialized committees, conducted business there every 15 days and anyone who wished to formally communicate with Vicos went through a similar process. My letter was one of many they were to address that day, and I waited for several hours before they got to me on their agenda. When it was my turn, the Secretary read my letter out loud, and then invited me to speak. I stood up nervously and quickly imitated the formal style I had just observed from the previous speakers that day. I greeted everyone in Quechua, thanking them for the opportunity. I then explained my research plan (in Spanish), and what I hoped to do in Vicos, and why. After speaking, there was a moment for discussion and questions, which took place both in Spanish and Quechua. After a few questions one of the delegates pointed out that since people were only being asked to participate voluntarily at their own discretion, there was no problem with what I proposed. They approved me.

Later, I learned that my letter was not deemed controversial or important enough to be brought before the general assembly of comuneros. If I had been required to present my case at the general assembly and get approval through a community vote, it would have legitimized my study and my presence in the community more profoundly. It would have also given all the comuneros a good introduction to who I was, so when they saw me later at meetings and events or approaching their house, they would know that I was in the community with transparent

intentions. On the other hand, going before the general assembly would have also been an opportunity to reject my presence entirely, which was certainly a possibility. As it happened, the Junta Directiva and Delegates approved my presence, and the delegates informed their sectors in sector meetings that I was going to be visiting each sector to ask questions, and people could participate if they wished.

"Rosita"

As months passed, people in Vicos came to recognize me not because of the letter I wrote or the approval given by the Junta Directiva, but because I moved through the community constantly and attended public events. I attended soccer games on Sunday, showed up at different fiestas and events, and, when I was given permission by the leaders, I attended assemblies. After being invited to a wedding on my compadres' side of the family, and taking picture which I later delivered—framed—to the bride and groom, I was invited to a lot more weddings. I showed up at the community anniversary in full *ropa tipica* (typical clothes, associated with the grandparent's generation) loaned to me by Margarita, and danced to the band music. Overall, people were curious and sort of amused by me, teasing me, asking where my *pollera* (traditional skirt) was, and making innuendos (such women inviting me to marry their teenage sons, or prompting me to say suggestive things in Quechua to men). By the time I was conducting interviews, I would find that people often already knew me by the time I knocked on their door.

People in Vicos called me Rosita. I acquired the nickname in 2004, after I learned that my given name was difficult to pronounce for Peruvians. A healthcare worker I knew at that time asked if she could call me "Rosita" instead, and it stuck. I eventually formed the habit of

introducing myself with my given name and then offering Rosita as an easier option, and by 2010, most people I knew called me by this nickname, including Urpi staff and friends I had who were unaffiliated with my research.[23] It helped that everyone I met knew someone named Rosita (or Rosa), and I believe this familiarity directly affected how people perceived and treated me. Compared to another dissertation researcher who was called "Doctora," my nickname was less formal but friendlier. Rosita has a diminutive twist. It seemed to suit me well, with my pollera over my jeans, speaking broken Quechua, asking lots of questions and often needing to have things explained to me. I was Rosita, the gringa who liked to eat guinea pig and *ruru utsu* (spicy egg in hot soup) and who was terrible at pasturing animals. Not everyone called me Rosita, however. In the coming chapters, I have included, when appropriate, the various terms people called me during interviews and events: comadre, senorita, enginiera, mamita, and Rowenn. These give some indication of the kind of relationship we had.

As a gringa and a white person from United States, I stood out wherever I went. As a woman, I often sensed that I had an easier time building rapport with other women. People in state, NGO, and mine offices tended to focus on my student status and were generous in their assistance, requesting merely that I share the results of my research when I finished. In the company of RRCAA, campesino communities elsewhere tended to accept my presence, even though for many of them the other 'gringos' they knew were mine operators. By this I do not mean that the mine operators were necessarily North American or European. Peruvians who look white, or who come from privileged and educated backgrounds and do not speak Quechua were often called "gringos" by campesinos. Vicosinos, for example, referred to each other as *paisanos*

[23] As part of my consent protocol and IRB compliance, I made sure people were aware of my full legal name. I also handed out cards to study participants with my full legal name, contact information, as well as my nickname "Rosita" printed on them. These cards were IRB compliant.

(fellow countrymen). But the community president was fond of teasing me, “Rosita, es tu paisano!” whenever a particularly white-looking mine engineer came around, even though he was from Lima. This joke was a good reminder of the extent of our “outsider” status.

Ethnographic Research in Vicos

When I began my ethnographic research in Vicos in 2010, I intended to focus on the activities of the Vicos environmental promoter committee. However, the first two meetings of this committee revealed that most of the promoters were no longer participating in the committee, and most of the ‘activities’ being conducted in their name were actually carried out by three individuals, one of whom was Urpi’s employee. I interviewed ‘retired’ promoters (n=12) and began to piece together the details of the relationship between promoters, Urpi, and the Vicos community government and other comuneros. Because the promoter committee was not very active, I spent a greater amount of time focusing on the activities of the Vicos community government, which is where many important decisions about resource use and management were being made. I also continued to accompany the three remaining promoters and learn about their motivations and continued participation in RRCAA and with Urpi. The drop in participation among promoters was a recent manifestation of a broader dynamic around participation and NGOs, conciencia, and diverse environmental concerns that I describe in later chapters. My attention on broader community politics in my ethnographic research was essential for understanding why community-based stewardship unfolded as it did in Vicos.

From June of 2010 to June of 2011 I maintained a room in Vicos just a few houses up from the Plaza where I spent, on average, about 50% of my time (the other 50% was spent at RRCAA and Urpi events). The last two months in 2011 I lived primarily in Huaraz, but

occasionally stayed the night in Vicos and travelled to and from there frequently. Living in Vicos was an important research strategy, as my general awareness of events and activities, local strikes, visits from NGOs, and other community events was greatly increased by my location near the plaza. I was aware of most centralized activity, if not through my direct observation of it then through conversations with the people who lived around the plaza. It was a rare day when nothing happened near the plaza. There were activities there of all kinds: meetings of the community leaders, visits from other authorities, political campaigning (local elections were held in the fall of 2010 and a national election in May of 2011), NGO meetings with their Vicos participants, celebrations of baptisms and weddings that began in the church, as well as funerals.

My location near the plaza was also conducive for learning about the assembly. It took me an embarrassingly long time to figure out how comuneros knew when one was being held. Sometimes leaders planned after dark for dawn on the following day, and dispersed after dark to their sectors to "inform" them. Unless someone told me, or I asked ahead of time, I was unaware of when assemblies would be. Finally, I asked the delegate for sector Tambo how the knowledge of the assembly could spread so fast, and he said that there are call points in each sector from which the delegate shouts out announcements. Shortly after this, I heard the call at dusk, having learned what to listen for. Attending assemblies when I was allowed, or if not learning about what transpired there from others, was incredibly important for understanding the dynamics of the Vicos community and its government, and strategic decisions made in relation to resource use and restriction, which I describe in this dissertation.

I also observed the community government's regular sessions, where there was "action" around resource management. I attended session regularly for 8 months with the goal of simply trying to understand more how the community was run and the kinds of actions taken, and

problems encountered, by the leaders. When talking among themselves, the leaders mainly used Quechua (although not exclusively, and I noticed some of the younger members switching to Spanish even when all there spoke Quechua as their first language). While my abilities in Quechua were not refined enough to keep up with all that transpired in this space (at times, people not only spoke fast but also at the same time) I was usually able to discern the basics of the process by asking those around me.

Further, the Session had many guest visits from other institutions—NGOs, government offices, the health center, and of course the mines. These guests spoke in Spanish. I was particularly interested in these interactions as it gave me grounded ideas about the relationships formed between "Vicos" and the various institutions that sought to shape Vicos conciencia in one way or another. Representatives of the two large formal mines, in particular, were frequently present. I focused both my data collection and my analysis on relationships between Vicosinos and these two mines: Toma La Mano and Caudalosa. Through interviews (with Vicosinos and mine representatives) and participant observation in Session, I learned a great deal about what occurs between Vicos and mines. I describe this more in chapters 5 and 6.

Although there were clear advantages to my location near the plaza and my focus on centralized Vicos politics, it did color my experience and understanding of Vicos differently than had I selected to live in one of the upper sectors, far from the plaza. There, I would have likely been more aware of sector politics and activities. Some of this I gathered through interviews and through casual conversations and joining specific sectors during work parties and conversing with people. Each sector tended to have numerous activities going on that comuneros organized internally. For Cachipachan, Avito and Margarita's sector, there was an ongoing debate over land and communal labor since the sector had quite a bit of land that had not been divided up yet

among comuneros. Comuneros worked to plant and harvest together more than in other sectors, which changed social dynamics there. This entailed more communal work days, and some comuneros thought land should be divided up to the young men in the community who needed it Another issue was the creation of a sector-based business—something that many sectors were interested in doing and some had already done. The business could coordinate labor for works projects and sell comunero labor to companies in order to have income to the sector. These kinds of ongoing issues and changes made Vicos incredibly fascinating with endless opportunities to understand how the community responded to social, politcal, and economic changes and opportunities. It was impossible to stay abreast of all of this, however, and I focused on central community politics in relation to resource management and mine supervision.

I also spent time with people in Vicos doing things that they did domestically on a daily basis. I conducted this household participant observation primarily with Avito and Margarita, but also with a few other families throughout Vicos, including the Environmental Secretary (a promoter) and a few widows' households. I would occasionally visit and participate in whatever they were doing, conversing casually as we went through daily chores. In several cases, I was able to record full days of activity focusing on one or more of the household members. This method gave me a broader perspective on the daily practices and resource decisions that occurred in quotidian contexts, reflecting a different side of conciencia.

Interviews in Vicos

I conducted interviews with the Vicos community leaders (n=11) and with promoters (n=12) and promoters' domestic partners (n=9). I also used a list of all comuneros that was kept by the community to randomly select comunero households for interviews. I sampled 10% of the

comuneros using this list (74 comuneros) and attempted to interview two individuals (one male and one female) for each household. Out of the 148 interviews I attempted, I was able to interview 101 individuals from 63 different households. This response rate was influenced by cases where households had moved location either temporarily or permanently, and could not be reached, as well as some individuals being deceased, having cognitive disabilities, and some other life circumstances that prevented their participation. A few people declined to participate, either actively, when I solicited their participation, or passively, by obviously avoiding my attempts to contact them (if I failed to contact someone after three attempts, I considered it a decline).

There are some methodological shortcomings to this random sample strategy that should be made explicit because the comunero list is biased in several ways. Since it only includes active comuneros, it does not include the households of non-comuneros or retired comuneros. The age range of the comunero list is also biased for this reason because comuneros are generally incorporated sometime between their late teens and age 25, and retire when the child that they select to replace them (usually the youngest son) comes of this age. Few active comuneros are past their 60s.

There are also non-comunero households in Vicos, but they are not as systematically tracked by the community, so it was not practical to conduct a random sample of them. I conducted a rough estimate of their numbers by consulting with sector delegates regarding how many "non-comunero" households were in their sector. Some sectors kept waiting lists of individuals (usually just the men) who were hoping to be incorporated should land be made available. Other sector delegates stated simply that there was no waiting list. I estimated that there were at least 100 non-comunero households in Vicos. The total population of Vicos was

calculated as 4,289 in 2007 (INEI national census), with an average of 400 individuals (men, women, and children) living in each sector, plus an additional 411 individuals living in the central urbanized area of Vicos.

As state above, I solicited interviews with two individuals within each selected comunero household in the random sample: one male and one female. Due to the varied availability and response rate of participants, I was able to interview both a male and a female member in just 38 of the 74 randomly sampled households. In most of these cases, I interviewed the comunero, and the comunero's household partner of the opposite sex. About 10% of the comuneros are women, but most were widows living alone or with minors, and thus had no clear male counterpart to interview. I interviewed women and men separately from each other. Interviews ranged from 20 minutes to an hour and a half.

I conducted interviews in Spanish or Quechua, depending on the preference of the interviewee, with a bilingual research assistant. The process for soliciting these interviews was typically as follows: my research assistant located the home of the comunero. When someone opened the door, my research assistant spoke first, in Quechua, and explained briefly who we were and that we hoped to conduct interviews. If the comunero (or comunera) was home, they typically came out first, and I then spoke directly to them in Spanish or in Quechua and explained why I was doing interviews and what the interview would be about and why this particular person had been selected.

All the interviews followed the same format, but were semi-structured so that I could pursue follow-up questions based on the person's responses.In a few interviews, we may have spent more time discussing the person's work history, for example. I gave everyone the option of not being recorded, but recorded whenever I could and took written notes when I could not.

In general, comuneros responded to my request to be interviewed with courtesy and accommodation. The fact that I was focusing on environmental issues was perceived positively. Women either seemed pleased and eager to talk to me (and often asked me questions about my life in return), or they were very shy and doubtful about their ability to answer my questions. In some cases, women declined for precisely this reason—they insisted that they were not knowledgeable about the environment. In other cases, my research assistant and I persuaded them, and I believe that my ability to speak some Quechua and the fact that both I and my research assistant were female could have played a role. I would say "*warmipura shumaq parlashun"* (just among us women, we'll have a lovely chat) and this usually solicited some laughter and diffused tension.

Participatory Activities with Vicosinos and Urpi

At a few specific points during my research, I used participatory group methods to probe understandings of environment, its protection, and reasons for its degradation. The first instance was during a meeting with Urpi staff in 2008. I asked staff to fill out a chart, sorting different kinds of environmental practices into categories according to whether they were associated with Western or Andean culture, and whether or not they were good for the environment. I explain this method more in Chapter 4, including how it illuminated the link between conciencia and culture.

I also conducted three workshops specifically for Quechua-speaking women in Vicos towards the end of the research. This method was intended to address a number of issues in my research which became apparent. First, there was a dramatic difference by gender in the random sample and in promoter households and this further motivated me to focus on gender as an aspect

of differentiation that was centrally important for the research questions. Second, while the randomly sampled interviews with women did allow me to identify important trends in environmental knowledge distribution, they did not do much to help me uncover the qualitative content of these individuals' understandings, especially when they spoke Quechua. The three workshops were an opportunity to better and more openly explore the content of women's environmental understanding toward this end.

The workshops focused on one of three themes, water resources, land resources, and environmental change, with participants numbering 16, 25, and 28 respectively. Activities included a drawing exercise where the women, in sub-groups of 3 and 4, sketched out the specific resource according to what they saw as important. (In the case of environmental change, women drew 'before' and 'after' images, based on the memories of the oldest generation in their groups). Following the exercise, each group presented to the larger group and all discussed what was represented. The instructions and discussion was conducted in Quechua via a bilingual research assistant. The participants for these activities were solicited via the sector delegates and a local *Vaso de leche* group. This method was, overall, a move from a specific line of investigation (interviews) towards a more open-ended one. My intention was to capture aspects of people's experience (and a better understanding of their subjectivity) in relation to their environment and resources that were missed via the other methods. I encouraged the participants to direct the content of the workshops and shape the discussion proactively. Apart from the general themes, I did not impose categories and left the activities widely open. The workshops were successful for this reason and revealed ideas about the environment that I had not heard in other contexts, which I describe in Chapter 6.

I also conducted a similar workshop with the Vicos community leaders in 2011, based on the topic of environmental change, with 39 participants. This workshop was also conducted in Quechua and involved sketching before-and-after images of the community. Again, the purpose of this activity was to broadly explore the idea of the environment in a way that was, methodologically, different from interviews. The data from this workshop, however, ended up confirming what I had learned from leaders via interviews and participant observation, rather than revealing particularly new insights.

Promoter Networks: Interviews with Representatives of Other Institutions

These environmental discourses I describe in this dissemination were not contained exclusively within Urpi, Vicos, or RRCAA, but allowed actors representing these institutions to interface with others, including sectors of the Peruvian state and mine companies. In order to trace these connections, I conducted interviews with individuals at a variety of institutions involved with Vicos and RRCAA. These included representatives at NGOs such as CARE Peru, Worldvision, Asociación Ancash (Antamina's NGO), and TMI, as well as representatives at mines working with promoters such as Caudalosa and Toma La Mano (the larger mines above Vicos) and Antamina and Barrick (large mines with relationships to RRCAA because of the committees involved) I also interviewed local and regional government officials in Management of Natural Resource and Environment (GRNYGMA), the Direction of Energy and Mining (DREM), The Direction of Environmental Health (DESA), the Local Water Authority (ALA), and the office of Wild Flora and Fauna (IFFS).

One of the most important state institutions in relation to Vicos was the office of Huascarán National Park (*Parque Nacional Huascarán*, PNH), because of its location

overlapping Vicos lands. I conducted several interviews here, including with the director of the park and select staff who worked with campesino communities in general and Vicos. The purpose for these interviews with government was in many cases to clarify policy and procedures related to state-led environmental monitoring and resource management, as well as to clarify experiences with or situations of Vicos with respect to these laws and regulations. In the case where RRCAA's activities were relevant, I sought to determine what kinds of interactions had taken place between the organizations and how these individuals who work in NGOs and Government understood RRCAA's purpose.

Working with Research Assistants

I worked with many kinds of research assistants throughout my dissertation work, including field assistants and translation and transcription assistants. I conducted interviews in Vicos with the assistance of field research assistants who were native to Vicos. Vicos is a large spread-out community, and it made sense to bring someone who was familiar with the terrain and layout of sectors, and who knew people in various families, who was fully bilingual, familiar with local events, etiquette, and slang, so as to be able to converse productively and translate accurately.

Danila was one of three young women who worked as my research assistants while I conducted household interviews between August and November of 2010 in Vicos. All three were between 19 and 23 and had completed secondary school. From my previous research in Vicos, I knew that people, especially women, would be shy about being approached for interviews by someone they did not know and for whom they had no proper introduction. I discussed all of these issues with Avito and Margarita, and they both immediately concluded that

my ideal research assistant should be "an unmarried woman who had graduated high school." A woman was preferable, they explained, because a "*mujer va a hablar bonito, va a entrar la casa*" (a woman will speak well, will gain access to the house). In cases where the consent and interviews were conducted in Spanish, the assistant still helped guide me to the house and established first contact. In cases where we spoke in Quechua, the assistant provided on-the-spot translation as needed.

For interviews that were recorded, I employed the assistance of an independent bilingual translator and transcriber who provided a line-by-line translation of the Quechua. I referred to the original Quechua as needed in interpreting the Spanish translation. I was also able to see how my field assistant had translated on the spot versus how my transcriber (who spoke Quechua as a first language) had transcribed the statements. I identified discrepancies and mistakes and, when necessary, conferred again with either the field assistant or the transcriber in order to interpret them. Sometimes my field assistance did not translate my original questions consistently, or she failed to translate the full response of the participant, which shaped my ability to ask follow-up questions. Despite these disadvantages, working with a local resident, especially in the earlier portions of my research when I was trying to conduct many interviews daily, was extremely helpful. Towards the end of the research, I also worked with another bilingual assistant who had a professional background to help facilitate the participatory workshops and oral history interviews.

Analyzing the Dynamics of Conciencia

I used a grounded theory approach in this research. The process of identifying the three discourses I describe in this dissertation began during my pre-dissertation research in 2007. My

early interviews and observations of NGO workshops revealed an ideological connection between conciencia and the Andean Cosmovision. The economic viability of rural livelihoods in the face of environmental and economic change was also an important consideration for NGOs and their participants. These insights shaped the interview questions I asked during my long-term fieldwork in 2010 and 2011. The nuances in the social dynamics around technical science was further uncovered this longer period when I began observing more interactions between promoters and mines and interviewing miners and engineers.

In my interviews, I asked NGO workers, state officials, miners, promoters and untrained campesinos about many different key terms: conciencia, certainly, but also other terms used by Urpi: *la Cosmovisión Andina* (the Andean Cosmovision)*, indigena* (indigenous), *cultura Andina* (Andean culture), as well as terms in Quechua, such as earth mother. Some of these terms were important in the NGO's discourse, but my interviews in Vicos revealed that they were far less recognized outside of the NGO's projects. Clearly, there was a disconnect between how Urpi workers saw and explained Andean culture and how contemporary campesinos formulated ideas about nature and resources. I explore this more in Chapter 4.

Post-fieldwork, the three discourses crystallized as I clarified their meanings and relationships through a qualitative analysis using Atlas.ti. I followed the recommendations made by Friese (2011) that coding should not be limited in quantity during initial stages of analysis. I used an open coding technique and created a large number of different codes with wide ranging relevance not only to environmental issues but to the complex relationships among campesinos communities, environmental committees, state agencies, NGOs, and mines, over development and use of resources. I used a limited data set of a dozen different types of texts that represented a cross-section of my diverse data sources: interviews with trained and untrained campesinos,

NGO workers, and fieldnotes from committee activities and NGO training workshops. Following this initial analysis, I identified smaller subsets of relevant code relationships that I applied in analyzing larger subsets of data, depending on the specific theme being pursued. Each of these themes corresponds to a chapter, and I describe the specific of the analysis in each corresponding chapter.

In addition to coding the instances in which people used the term conciencia, I also coded for acts of that people had described to me as being examples of environmental consciousness. I asked people during interviews and other conversations what environmental conciencia meant to them, and documented the examples they described when I observed them. This allowed me to code behaviors where people embodied conciencia. I further analyzed different ideas of conciencia by including subcategories such as Andean conciencia, conciencia of mines, conciencia of local government, difficulties in creating conciencia, lack of conciencia, conciencia among promoters. Analysis of gender was a crosscutting category. I documented divisions of labor and gender-specific spaces and roles, but I also asked in interviews about gender roles, divisions of knowledge and labor, and ideological views of gendered nature. In this way, I traced how activities and ideas about gender and conciencia were interconnected.

Creating code families in Atlas.ti allowed me to link smaller descriptive codes (such as mentions of the Incas) into one or more general categories of code (such as Andean Cosmovision). Thus "conciencia" (a large, general code) could be broken down into types and categories: conciencia that mines should have, conciencia that is specifically Andean, that state workers should have, etc. I developed my characterizations of each of the three discourses in this way, as a code family that contained both descriptive and categorical codes. The Cosmovision Andina included, for example, references to the Incas, specific customs, narratives of cultural

loss, references to pachamama, gender role constructions, and rituals. Economic rationalism included instances where people described resources in economic terms (eg, justifying the replanting of trees as an investment) as well as factors that I identified as being economic incentives, such mining payments, funding for conservation projects, and gifts through NGO projects. I also included the broader sets of benefits people described in relation to mines and NGO projects even when these were not directly economic, in order to develop my argument for Chapter 6. The analysis of technical science coalesced first around different ideas and definitions of contamination, and I expanded this to include the technical measures and tools as used and interpreted by different actors.

Disseminating in "the Field"

I committed to sharing results of my research with RRCAA, Vicos, and the various institutions that provided assistance or interviews. In the case of Vicos, in the letter I presented to the leaders I stated that I would "share the results of this study in a format we agree on." Towards the end of my research the leaders in a session meeting requested the format of a short report. I published a small magazine-style report for every comunero in Vicos, plus extras for every sector and the women in the participatory workshops. I also gave a set to Urpi and a few other institutions that had been instrumental. I left a large amount for RRCAA—enough, I hoped, that each member would take a set of 10 or so to distribute to the members of his or her committee or other interested parties. I also shared this publication with friends and associates. The content of this magazine-style report was substantially different from what is in this dissertation, however. It included quantified results that were easy to calculate while still collecting data. In the pages that follow, I make claims about subjectivity that are based on the

more intensive qualitative analysis of the processes, contexts, and relationships that enable different discourses of the environment to circulate and different versions of conciencia to be deployed.

Chapter 3:
Training Promoters for Environmental Stewardship

Miguel, Hector, and I bend over a sheet of butcher paper. I am poised to write while they brainstorm a list of environmental problems in Vicos. Around us, other teams are writing with thick colorful pens on white butcher paper, making lists, drawing maps, and discussing amongst themselves about how they will present their environmental concerns. We are in Urpichallay's classroom on a Saturday, attending an all-day workshop for environmental promoters on the topic of Environmental Management (*Gestión Ambiental*), and today, we are learning how to analyze 'environmental problems.' Maura, our trainer, spent the morning lecturing about environmental laws and policies in Peru, the functions of state offices, and the causes of social-environmental conflicts, using powerpoint slides. Now we have moved into the hands-on part of today's lesson, where promoters-in-training apply what they have learned to their own experiences in their communities. About 15 other participants from around Ancash are in attendance, and many of them are members of rural environmental committees (promoter committees) formed in farming communities with the assistance of Urpi. Other promoters-in-training are elementary school teachers, a few university students, as well as a few campesinos that have not yet organized an environmental committee in their locality. I am attending this course with them in 2010 and 2011 in the role of student while conducting participant observation of the processes of promoter subjectivity-shaping that occurs in workshops.

Capacitación (capacity-building, training) workshops like this one are a key strategy in Urpi's projects to create the local leaders they call "environmental promoters". In this chapter, I describe these workshops and discuss the ways in which workshop structure and content reflect an attempt to shape subject-citizens, and how these attempts reflect broader patterns of

governance strategies. The workshops I observed covered a variety of topics and were led by a number of different trainers, and were funded by CLWR as part of a project called *Agua Viva* (living water). Workshops were held over weekends so that promoters could travel to get to Marcará from various places around Ancash, and were intensive, day-long events. Attendance was taken each class day, but although good attendance was encouraged, it was not enforced. At the end of the course, students received a certificate (internal to the NGO). Students were expected to put their training into practice, not only during classes but in their home communities, and present on the results of their activities. Finally, as promoters, they were encouraged by the NGO staff to create environmental committees in coordination with their fellow villagers and authorities and dedicate these committees to improving some aspects of environmental management: reduce littering, expand recycling, negotiate with mines for better impact control, etc.

On an explicit level, these workshops are intended to empower citizens who have been merely targeted with environmental governance (through anti-littering campaigns for example) and otherwise disenfranchised from active participation in shaping environmental protection approaches. Urpi's courses are specifically designed to be accessible to rural indigenous Andean farmers, who have historically lacked access to knowledge and meaningful participation in the environmental management decisions of state and private sectors that affect them. Urpi offers a combination of supportive strategies to address this: training in technical approaches (via the workshops), tools and materials for community-based water monitoring and other forms of environmental testing (for committees as they form), opportunities to engage with government officials or mine managers in mediated settings (also via workshops and other events), and symbols of the legitimacy of their role (by providing certificates of course completion which,

while they are not officially recognized as a diploma, signal a status of affiliation with a well-known NGO which might further open doors). Workshop training is also intended to shape participants into local environmental 'leaders'—subject-citizens who will be catalysts in their communities and instigate grassroots efforts to improve local habits, awareness, and response to state management efforts. This process of participant-shaping, which is framed as empowerment, is the focus of this chapter.

In what follows, I first describe my theoretical orientation for thinking about Urpi's promoter training content and techniques, and how this relates to the question of environmental discourses and subjectivity. I approach my analysis of workshops as a tool of governmentality that seeks to empower promoters to adjust to new forms of knowledge. Then, I give some background on the promoter training courses, including why Urpi and their funders think that training promoters is a good idea and the general content and structure of this training. I also clarify what data I collected about Urpi's training, and how I analyzed this data to arrive at the discussion that follows. The remaining chapter is divided into two parts. In part one, I delve into an ethnographic analysis of how workshops attempt to shape promoters into thinking about "environmental problems" in new ways. I also highlight some of the difficulties promoters have making their conceptions of problems fit workshop categorizations. In part two, I analyze how training addresses "the state" and how the relationship between promoters and state functions are constructed. Further, I look at how promoters describe their actual experiences with state offices and authorities to show how the role prescribed to them as promoters problematic.

Environmental Discourses and Governmentality

In the introductory chapter, I outlined three environmental discourses that circulate across networks of NGOs, citizen-led environmental committees, mine operators, and state agencies. All three of these discourses (Technical Science, the Andean Cosmovision, and Economic Rationalism) are present in Urpichallay's training, although they are emphasized at different times and for different reasons. The first two, for example, are both "taught" to promoters as part of the explicit content of the NGO's approach, while economic rationalism is more subtly interwoven. These different teachings correspond to a different lines of argument with the literature on NGOs as part of the government apparatus.

Scholars are divided in their analyses of NGO interventions that seek to empower people through participatory activities (see Fisher 1997). Some argue that NGO-led empowerment schemes, when truly connected with grassroots concerns and struggles, can be vital sources of alternative development discourses or counter-hegemonic efforts to create a more inclusive and just society (Escobar and Alvarez 1992; Hickey and Mohan 2004; Keck and Sikkink 1998; Mitlin et al 2007; Merry 2006). Urpi's staff self-consciously strive for this effect in their work by promoting indigenous understandings and responding to local needs in their project offerings. The Andean Cosmovision presents a counter-narrative to scientific understandings of nature that are dominated within state and industry forms of governance. Urpi links this discourse to the 'counter-development' aspect of their work. I describe this discourse and address it in the next chapter and go into more detail about the Andean Cosmovisoin discourse and give examples of how it is interwoven with ideas of conciencia and how trainees respond to it, adopting it (or not) on their own terms.

Other scholars studying NGOs have critically analyzed the process by which NGOs 'empower' others, arguing that 'empowerment' can draw participants into power relationships which serve to extend control over them, even inadvertently bringing harm to them (Bryant 2002; Cooke and Kothari 2001; Cruikshank 1999; Garner 2009). This second set of arguments draws on a reconceptualization of power and governance in terms of Foucault's governmentality, and emphasizes NGOs as tools of hegemonic control. In the case of Urpi, teaching promoters via the discourse of technical science attempts to bring them into the same knowledge community as state and mine actors, and requires that campesinos learn to fit what they already know into new categories, use new concepts, and respond to new tools and ways of knowing. Despite Urpi's critiques of western science and its hierarchical way of knowing and dominating nature, technical training is important for the work that the NGO does with promoters, and it is key for preparing them to interface with other authorities—such as state authorities or other NGOs—that engage with environmental issues in primarily technical terms. In this chapter, I focus on the "technical" side of training, which encompasses what I describe as the technical science discourse of the environment in the introduction. I draw on Foucault's concepts and scholars who describe NGOs as tools of governmentality in order to frame this analysis.

Foucault's understanding of government is captured in the idea of 'the conduct of conduct,' a process by which individuals internalize self-control in the context of new relationships with both state and non-state institutions seeking to control and supervise society. For Foucault, power is best understood through relations among humans that result in guiding their actions—particularly "pastoral power," which enables as much as constrains people's agency (Foucault 1982). The concept of governmentality builds on this understanding to

reconceptualize government not as the purview of a monolithic "State," but as an ensemble formed by institutions, procedures, calculations, and tactics (Foucault 2008).

Governance is achieved, then, by the shaping of people's identities, habits, beliefs, and ways of thinking towards compliance with institutions which try to control them, both internal and external to the bureaucratic state (meanwhile, tactics of bureaucratic administration continually redefine what is within the competence of the state and what is not). The framework of governmentality thus assumes that people are more effectively controlled through tactics exercised at multiple levels of society by a variety of institutions. Foucault highlighted the role that schools and prisons play, while other scholars have highlighted the apparatus of international development, including NGOs (Cooke and Kothari 2001, Agrawal 2005, Li 2007, Fisher 1997, Postero 2007). The strategies employed by these institutions could include coercion but also forms of empowerment aimed at winning hearts and minds over to particular ways of thinking, feeling, and behaving—in short, by shaping people into particular kinds of subjects who enact their agency in particular ways. These administrative and institutional practices and techniques of government are embedded in a system of knowledge, truth, and rationality that legitimizes them (Ferguson 1994)

Training and empowerment ventures (whether offered by NGOs, state agencies, church or private enterprise, etc) can be examined as part of the apparatus of governmentality because they explicitly seek to shape the perspectives of trainees, and to inculcate certain behaviors, ways of thinking about the environment, and attitudes towards state-led management. These efforts of 'empowerment' thus also imply a subjection *to* power, which may not actually be in the best interests of poor, rural, and indigenous people. Bryant (2002), documents a case where NGOs working to empower indigenous communities inadvertently further entrenched these

communities within state categories, priorities, and authority by making them more visible, and encouraging them to use state-sanctioned ways of engaging with officials, laws, etc., as well as state-sanctioned categories and systems. Thus, indigenous groups became more connected via power relationships with those seeking to control and limit their use of land and claims to territory.

The training workshops that I describe in this chapter exemplify these processes. Workshops teach promoters how state offices function and the appropriate ways to engage with these entities. Maura and other trainers provide feedback during training that reframes promoter's ideas about environmental problems in their home communities into new terms. Trainers correct them when their explanations do not match the broader narratives of scientific understandings of environmental processes. In some cases, trainers tell them what kinds of political actions to take in response to situations in their home community. In these ways, trainers attempt to cultivate leaders who are prepared to work in ways that will align with the stated goals of state management. The interactions between promoters and trainers I highlight in this chapter show how authority and technical knowledge are applied in ways intended to shape promoters into environmental subjects who enact an environmental governmentality.

Scholars who describe processes of governmentality have emphasized that creation of environmental subjects is convenient for state bureaucrats and officials, even if these efforts to shape subjects do not come from the state itself (Agrawal 2006; Bryant 2002; Li 2005). However, this dissertation argues that this is not necessarily the case. In this chapter, I show that during workshops, trainers communicate normative ideas about how environmental governance should be achieved, but remark that in actual practice, the Peruvian State does not sufficiently put these ideals into practice. One of the barriers to effective environmental governance in Peru,

they teach, is the flawed State: both its unsatisfactory policy, and the inadequate work of government officials at all levels. This distinction, between normative ideals on the one hand and the actual decisions, practices, functioning of state agents and agencies on the other, is important for understanding how governmentality works, particularly in the case of Urpi because the outcomes NGO leaders hope from their projects is strategic pressure on the state to govern more effectively. As Bryant explains:

> To make sense of the relationship between NGOs and the process of governmentality, it is useful to distinguish between *regimes of practices of government* and the particular institutional arrangements that are associated with them. While the latter may be thought of as encapsulating notably the policies and programmes identified with what states do, the former are 'simply fairly coherent sets of ways of going about doing things' (Dean 1999, p. 21). Regimes of practices such as relieving poverty, punishing or caring are typically linked to specific institutions or systems but are never identical to them...What we have here, then, are a number of regimes of practices that criss-cross both conventionally understood state/civil society divisions and each other. [2001, 272-273, italics in original].

Regimes, which are sets of discourses and practices that form a common-sense understanding of particular aspects of government, cannot be conflated with state systems. Further, these regimes are multiple and overlapping. (Bryant identifies both "Biodiversity" and "Empowerment" as specific regimes at work in the processes of governmentality in the Philippines; Garner (2009) similarly distinguishes between "fortress conservation" and "community conservation" as two sets of discourse/practice.)

What does this mean for understanding the dynamics of promoter training? As mentioned above, promoters are taught about the Peruvian state's role in environmental governance and were instructed to engage and cooperate with these systems. However, in the on-the-ground moments of training that I observed, the actual messages promoters received about their roles and relationships to the state reflect more relationships than ones of mere cooperation. Promoters were also encouraged to act in ways that influence these state agents and guide them

towards more closely reflecting the regimes of environmental governance they had been taught to value. Trainers convey that promoters' own actions in engaging with the state could have a disciplinary effect on the state itself, as these agencies did not always perform "their functions" reliably or to the extent that "they should". Thus, while I concur that learning to work *with* the state can indeed increase their home communities' visibility in the state supervision, (as Bryant argues), scholarly efforts that examine NGOs as agents of governmentality have not sufficiently explored how governmentality might also increase the visibility of state practices, procedures, and activities among rural villages who demand rigor, accountability, and that protocols are followed (see also Medina 2010). This is an outcome of promoter training hoped for by Urpi employees.

Why Train Promoters?

In 2009, Urpi advertised their newest course for environmental promoters with a pamphlet that they distributed by letter to community leaders, health post workers, and to previously trained promoters all around Ancash. The pamphlet described a three-module course that would be offered through 8 day-long workshops held on the weekends, covering topics such as "Basic concepts of the environment," "Climate change," "environmental law," and "the Andean vision of the landscape." The text of the pamphlet explained:

> Following the increase in extractive investments in the country, rural populations experienced strong changes in their relationships both with external agents and members of their own locality, which further marked the differences between rural and urban people, between the farmer and the entrepreneur, and between communities and the state. There are many issues to consider in this type of relationships, but an allied point was, and is, the environment, where changes in the environment were interpreted in different ways according to the source and interests. In all cases, the local vision was exceeded by external and technical concepts considered solely valid in determining the conditions of water, air, or soil. The management of these terms was alien to the rural resident such that conflicts, instead of being solved, became more acute. In this sense, the Urpichallay Association has been

> training residents of campesino communities in the interpretation of their environmental conditions through technical parameters but also in the revaluing of concepts and methods specific to their culture.
> (from the pamphlet "*Formación de promotores ambientales en zonas rurales 2009-2010*" by *Asociación Urpichallay*)[24]

Urpi's pamphlet presents the need for environmental promoters as follows: increasing divides between (dichotomized) perspectives, rural/urban, farmer/businessman, civil society/state. These divides lead to different interpretations of the environment. But in the process, the "local vision" is being overpowered by "external concepts"—the latter being technical understandings of water, soil, air, etc. Thus, the rationale for Urpi's training workshops becomes clear, to bridge this divide by providing a technical training that will assist those on the rural/farmer/community side of the divide in understanding and speaking the language used by the technicians who are asserting authoritative knowledge over their resources and wielding tools of technology which will provide them access to these forms of knowledge-making themselves. At the same time, the trainer will 'revalorize' the concepts and methods of the culture from which participants come.

Urpichallay's promoter training courses took different forms over the years. Sometimes training was held in localities with a group of residents who were already selected to become the environmental committee for that specific village, as was the case with APS in Vicos. While I

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[24] *"Tras el incremento de las inversiones extractivas en el país, las poblaciones rurales experimentaron fuertes cambios en sus relaciones tanto con agentes externos como con miembros de su propia localidad, que marcaron más las diferencias entre el hombre rural y urbano, entre el agricultor y el empresario y entre las comunidades con el estado. Existen muchos temas a considerar en este tipo de relaciones, pero un punto aliado fue y es el tema ambiental, donde los cambios en el entorno fueron interpretados de distintas maneras de acuerdo a la procedencia e intereses. En todos los casos, la visión local fue rebasada por conceptos externos y técnicos considerados únicamente validos en la determinación de las condiciones del agua, aire, o suelo. El manejo de estos términos era ajeno al poblador rural por lo que los conflictos en vez de resolverse se agudizaron más. En ese sentido, la Asociación Urpichallay viene capacitando a pobladores de comunidades campesinas en la interpretación de sus condiciones ambientales a través de parámetros técnicos pero también revalorando conceptos y metodos propios de su cultura."*

observed a few such on-site workshops (for example one in Aija, and one in Tinyash), most promoter trainings were held in Urpi's auditorium in Marcará, and brought together trainees from different localities. Students in the courses I observed included campesinos, university engineering students who came from rural areas, and a number of rural schoolteachers. A few Vicosinos attended (usually just Miguel and Hector) but so did members of communities like Tumpa, Aija, Atoqpampa, Aquia, and Huallanca. Some of these participants had been previously trained and had already formed environmental committees; others were seeking training for the first time and hoped to eventually initiate their own conservation activities at home. In the cases of Miguel and Hector, each had already been trained previously, but continued to come, learn, and build their own capacities. The courses were held as day-long workshop events over the weekends so that trainees from various localities could travel from out of town to attend without interrupting day labor or being away from their farms for long. Urpi covered travel expenses for individuals traveling far. A typical workshop had 8-12 people in attendance.

Workshops were taught by a variety of trainers, including Vicente (the head of the Agua Viva Team and director of Urpi), environmental engineers, professors from the nearby university or from elsewhere (including, in one instance, from Canada), and professionals from other NGOs. In this chapter, I use one workshop as my principal example for analyzing how promoter experiences are made into technical objects, and how promoters are encouraged to relate to "the state." This one workshop reflects the following broader patterns: lectures introduce concepts and provide technical information and frameworks, then promoters are led through a participatory activity in small groups that requires them to apply these frameworks and concepts. Afterwards, groups discuss the results of the activities, and the trainer asks questions, makes corrections, and gives constructive feedback. Throughout, discussions allow promoters to share

their own perspectives and ask questions, but the trainer remains the source of interpretive knowledge, while promoters are sources of 'cases' which get analyzed.[25] While workshops varied in topics, some crosscutting messages were sent about the role of technical scientific knowledge and the role of the state.

The arguments I make about the technical aspects of training draws on an analysis of 14 day-long promoter training workshops, and nine other events Urpi organized for promoters that were not explicitly "training" classes, although they still included elements of teaching (these included things like exchanges between promoter groups, or presentations about water quality in communities). I also draw on interviews conducted with the trainers and the Agua Viva team (five total), and with trainees themselves (the 12 Vicos promoters plus nine additional trainees from other communities). I also reviewed archived training materials (handouts, powerpoints, pamphlets) to understand training and techniques, and internal documents (grant applications, reports to funders, staff presentations) that show how the NGO represents the work that they do.

At workshops, I did not record audio but I took detailed notes throughout. I also took photographs of participatory activities, which were usually hand-drawn on butcher paper (such as the lists of environmental problems and problem-solution trees I describe later in this chapter). I draw my examples of speech from these fieldnotes, with exact quotes from powerpoints and presentation posters.[26] In this chapter, I focus on two thematic areas in these training workshops for promoters: 1) ideals of environmental problems, based in particular understandings of human-nature relationships, and 2) the positioning of promoters in relation to state management.

[25] The one exception to this was the presentation by the Canadians, who presented their own cases from Canada, after which the group discussed similarities and differences with Peru and asked questions.

[26] Statements from individuals are not necessarily verbatim. I distinguish approximate quotes taken from field notes with single quotation marks, and use full quotation marks for verbatim quotes from written materials.

To analyze this data, I coded for references to the state, including reified mentions ("el estado") and specific state offices by name. Within this groups of quotes, I sought to answer the question: what relationships are promoters encouraged to have with the state, and what relationships are articulated by the promoters? Second, I coded for constructions of environmental problems. This included the actual use of the phrases "*problema ambiental*" or "*problema socioambiental*" as well as the word "*problema*" but also any story told by any participant or trainer that suggested that there was a problem, failure, or issue. Within this group of data, I sought to determine the key differences in how these problems were described, and identify the terminology used to explain them. I also looked for ways that trainers corrected and directed promoters towards new concepts, analysis, perspective, or action, for example by rephrasing their contributions, giving advice, guiding them towards a specific kind of outcome or course of action, or suggesting specific tactics to achieve a different result. In the next section, I delve into an ethnographic description of training in environmental problem analysis, led by a training I will call Maura.

Analyzing Environmental Problems

Maura is an environmental engineer and a teacher at the nearby University in Huaraz. She was hired by Urpi to train promoters in the technical aspects of "environmental management." During the class, she walks us through an analysis of 'environmental problems'. The first step, she explains, is to clearly define the problem. Maura defines an environmental problem as a "negative situation, of deficiency or lack, that affects a sector of a population."[27] Defining the problem in clear terms requires separating it from its causes and effects, she continues, and stating it in such a way that one has not already assumed the correct solution and,

[27] "*una situación negativa (déficit o carencia) que afecta a un sector de la población*"

thus, precluded other possible solutions. Eventually, the geographic areas and populations most affected by the problem should also be defined. The example problem she gives for demonstration is "The increasing degradation of forest resources in the Santa River watershed"[28]—a problem which has many layers of causes, she explains, such as "inappropriate use of soil" and "reduction of vegetation in the area". These in turn are due to indirect causes such as "irrational use of forest resources, lack of knowledge about forest management, lack of conciencia regarding natural resource conservation, migratory agriculture, and insufficient enforcement of forestry laws."

After explaining how environmental problems should be worded, separate from their causes and effects, Maura breaks us into small groups, and as usual I join with the Vicos promoters. Hector and Miguel are the two promoters from Vicos attending today's workshop, and I know them both well already. Hector, a 69 year old comunero, has been the Environmental Secretary of Vicos for 10 years. He finished five years of primary school (which for his generation of comuneros in Vicos, was exceptional) and confidently speaks Spanish. Hector has had a long career of leadership positions. Not only was he president of the community many years ago, he was also one of the first Vicosinos to be elected mayor of Marcará, setting off a long line of Vicosinos who held the position in his stead. Hector participated in APS, and continued to be a dedicated participant in Urpi's environmental training programs, more so than other promoters. He had also helped found RRCAA in 2008, and participated in the network as the representative of Vicos's environmental committee, and thus knew many of the other trainees in attendance at training workshops.

[28] "*Incremento de la degradación de los recursos forestales en la cuenca del río Santa"*

Miguel is a 60 year old comunero who also finished primary school and whose main occupation is agriculturalist. His participation with environmental stewardship in Vicos is much more recent. In 2008, he was appointed as the president of the "Specialized committee for Forestry and Environment" in Vicos. Because of his role, Urpi reached out an offered him training as a promoter. He was then simultaneously president of the Promoter committee and Forestry committee until December of 2010, when his two year cargo was up. Now he no longer holds an office within the community or has any affiliation with the Forestry committee, but he continues to participate with the promoter committee.

Our assignment is to create a list of all the 'environmental problems' in Vicos to share with the other groups. Miguel and Hector start naming the problems they perceive, and I take the role of scribe, writing these down without comment. As the two of them brainstorm, they hesitate and discuss, still unsure of what counts as an environmental problem. Hector suggests including the fact that the mines do not pay the community as much as they should; Miguel says, no, we shouldn't put that. What about the fact that Toma La Mano (a mine) is working outside of its concession area, does that count? As they list problems, I notice the slippage in their discussions between "environmental" problems and the infrastructural and political ones that relate to them. '*La region no hace canal*' is another item they decide to include, referencing the failure of the Regional government to follow through on a promise to construct a cement canal that will bring more irrigation water to Vicos. In an effort to allay their doubts about whether they are doing the assignment correctly, they look for Vicente's help, but he is kept busy running the workshop as one of Urpi's employee. When Vicente eventually stops by our group, he adds more examples of things that are contaminated, more impacts that the mines do not control, and more forms of contamination that the community itself is producing, such as trash and waste waters.

Training workshops for environmental promoters teach participants to reposition their relationship to the socio-natural world. Promoters come to these workshops with their own ideas of what constitutes their environmental problems back home and their attendance is at least partially motivated by their own concerns about these problems. Via training, promoters are exposed to new definitions of problems, and ways problems can be broken down—as Maura demonstrates—into causes and effects. Problems, promoters are told, contain different layers of phenomena which may be linked but can—and should—be analytically separated. Such an analysis is the precursor to orchestrating actions to solve the problem (which promoters learn about in a different workshop).

Learning to analyze environmental problems in this way entails constructing 'the environment' in particular ways (as ecosystems, soil, vegetation, resources, forests, watersheds), to which to specific kinds of management techniques and interventions are conducive (laws, enforcement, conservation projects). Relationships between socio-political and natural phenomena are also reconstructed, as promoters are encouraged to separate conditions in the 'natural' world—which should be labeled in the correct technical language, for example a 'degraded resource'—from social contexts such as human habits and local political decisions which affect these resources. In Maura's example, forest degradation was attributed to "insufficient law enforcement" and "irrational use of resources"—causes which emphasize that there are correct sets of human practices and political arrangements that will have the desired outcomes in the natural world. If promoters can be taught to think and interpret 'environmental problems' in these terms, it follows that their agency will be directed towards solutions that match them. In the case of Maura's example, solutions might be tougher law enforcement, consciousness raising campaigns, and training programs targeting forest users.

For Miguel and Hector, the analytic moves Maura suggested were not particularly intuitive, and they relied on Vicente (who was far more immersed in the discourses being taught) to ensure they were doing the assignment correctly. Their concerns about environmental problems are closely related to the interactions between the community and mining activity in response to a variety of complaints, as well as to the perceived failures in responsibility of the regional government. I noticed that Miguel and Hector seemed to view political relationships and environmental conditions porous and difficult to separate, and the 'problems' relating to each as more deeply connected, and equally important. The activities of mines or the regional government presented 'problems' from their perspectives because the negligence of these organizations affected both the environment and villager activities. While the Regional government and local mines interact with Vicos differently and for different purposes, Vicosinos criticized both for their failure to follow through on agreements regarding resource use and community projects.

When our turn comes to present our list to the group, Hector sends me up to the front of the class to read the list ('since it is my handwriting'):

Problems with the Quebrada Honda watershed:
1. Water problems:
   -central potable water contains lead
   -water that travels down Marcará river is contaminated with minerals
2. The mine companies don't comply with their environmental impact studies
   -they don't comply with solid waste
   -they don't monitor or treat their water
   -they contaminate with dust
3. Community has solid waste problems
   -and waste waters
4. Before (people) didn't use synthetic fertilizers, insecticides, treatments
   -now, the plants can't be cured, many worms
   -its contamination
   -agricultural products changed their flavor
5. Animals are contaminated, skinny
   -contaminated pasture

-contaminated water
6. lack of technical knowledge in the population
(there is money from the mine companies, and local governments, regional offices, but they only do public works of cement, they should do technical irrigation
7. The region began to make a canal, but without analyzing the water, and then didn't finish the job.

Maura studies our list. She agrees that the first two are, in fact, "problems" but after that we are not being clear enough. What, exactly, is the "problem" with "*waste waters*"? she asks us.

One of the Vicosinos in attendance answers: 'Well, there's a septic tank [for the sewer system] but it's not treated, and then the waste water travels on from there...'

'So there's perhaps strong odors? And the liquid filters but the solids stay, and these need to be removed. So the problem is: 'inadequate maintenance of the septic tank structure,' Maura concludes.[29]

For each subsequent item, Maura asks more questions and then challenges the class to rephrase the "problem" according to the definition of environmental problem we have been learning. "Before (people) didn't use synthetic ferilizers, insecticides, treatments" becomes "degradation of agricultural soils." "Lack of technical knowledge in the population" becomes "inadequate use of economic resources." Maura further interrogates the promoter-generated text: 'What is the problem in number 6? There are inadequate priorities. They aren't in agreement with the needs of the zones,' she explains.

Rephrasing the list of environmental problems reshaped the meaning of the problem itself. The changes in wording depleted each problem of the specific actors involved. Instead they remark on various states of inadequacy: "Inadequate priorities... degraded soil...lack of technification in the population...inadequate use of economic resources... inadequate maintenance of the septic tank..." These new phrases still imply an accusation, but do not

[29] "*inadecuado mantenimiento en estructura de pozo séptico*"

highlight who is responsible or who should fix the problem. With this new wording, environmental problems are turned clearly into deficiencies but kept somewhat generalized.

Promoters respond differently to these models during workshops. Some, like Hector and Miguel, struggle with them and rely on others to guide these discursive shifts. Some, like the students from the local university, perform well. As other groups presented, Maura challenged the promoters in attendance to evaluate the phrasing of the 'problem' in each case, to question whether or not the team had truly captured the environmental problem, or whether they were conflating different problems, causes or effects of a problem, with the 'real' problems in their communities. These translations sometimes meant combining multiple promoter-identified problems into a larger category. For example, in one group's case, three separately stated problems—people fighting over irrigation water, lack of an irrigation committee in the community, and water distribution—became reframed as "inadequate water distribution."

Additionally, Maura suggested that some problems be re-scaled to fit a scope of influence deemed appropriate to these actors who Urpichallay positions as local leaders operating within community-based groups. In one example, a group listed "deglaciation of mountain snow caps" as a problem in their community. To this, Maura responded that although this was a problem, it was outside the scale of what the promoters could address: 'we can't solve it. It's out of our hands. We have to select problems that we can actually solve.'[30]

It was not just Hector and Miguel that struggled with this strict definition of environmental problems. Other promoter groups presented on problems in their localities in similar ways, emphasizing political relationship and socio-demographic factors that Maura often

[30] From fieldnotes: '*Es un problema? SI es problema. Pero no podemos solucionarlo. Esta afuera de nuestra alcance de trabajar allí. Tenemos que elegir problemas que sí podemos solucionar*.'

suggested were ‘causes’ of environmental problems but which promoters saw as ‘problems’ in and of themselves. The next example illustrates this dynamic.

Teofilo had been participating in promoter training and activities for the last six years. His home was a campesino community and township with mining activity that was also on the edge of PNH. He was at one point the Secretary for in his campesino community government, and at that point he assisted them form an environmental committee that would represent his community and defend the environment against pollution from a nearby mine. He became president of that committee, and for about two years the committee sought to pressure the mine, and made strides in changing its waste management practices. Later, his fellow comuneros lost interest and “for lack of capacity” on the part of his and other institutions, the committee disbanded. However, Teofilo continued to work as a promoter, coordinating with a local authority to address trash collection in his town in 2010.

Teofilo presented the following problems in a written list, and I have included his spoken commentary in parentheses:

1. Mining pollution. (Water, soil, and air, but air is minimal. Animals have died.)
2. Solid waste pollution. (Not everyone picks up their trash and waits for a garbage truck. They throw it in the field, in the street.)
3. Discord between residents. (There are people in favor of mining. Some work in mines. Others are against mining.)
4. Conflicts due to lack of irrigation water. (It can be mismanaged. We get it from a river, but not enough for the whole population. The mine also uses it, and this decreases it.)
5. Conflicts over communal lands. (People have begun to harvest forests. There have been denouncements. The population is growing.)
6. Social Conflicts. (Community leaders, they have been bought. One company paid 20 thousand soles, and our leader fell silent. The mining company promises a project, but then our leaders step down and the company doesn’t comply.)
7. Political Conflicts. (Conflicts between the population and community. Not everyone incorporated into the campesino community.)
8. Contamination by Agrochemicals. (We do not have lizards anymore, and the chemicals affect us too. Our main problems are the mine and solid waste.)[31]

[31] *1. Contaminación minera. (de agua, suelo, y aire, pero aire es mínimo. Han muerto animales.)*

Here, Teofilo highlights what he calls "social and political" conflicts as part of the environmental problems in his community. Some of his examples show how inequalities and political divisions are shaping these conflicts. For example, item 5 describes how increasing demand for land among villagers has led some to take over communal lands, transforming forests into farmland. This could have been phrased as a purely an environmental problem (deforestation) but Teofilo frames it as a community conflict which causes not only deforestation (of a communally held resource) but as a conflict between comuneros who are compelled to encroach on these forests and those who denounce them. Similarly, in presenting item 4 he suggests the environmental problem of water scarcity might be due to 'bad management' but is affected by the need to share water among a growing population and with a thirsty mining operation. Other items do not clearly illustrate an environmental problem at all—much like Hector's example of the mines not paying the community enough—they rather seem to be more clearly about social conflicts among actors with different interests: between those who are comuneros with those who are not (item 8) and between those who in 'in favor' of mining versus 'against' it (item 2). Item 6 comments on a situation in which locally elected leaders are ineffective in consistently pressuring mines to comply with their promises to fund public works, and may also be corrupt.

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2. Contaminación de Residuos sólidos. (No todos recogen su basura y esperan caro. Botan a la chacra, en la calle
3. Discordia entre pobladores. (Hay personas al favor de la mina. Algunos trabajan en la mina. Otros en contra.)
4. Conflictos por falta de agua de riego. (puede ser mal manejo. Captamos de un rio, pero no la cantidad suficiente para la población. Lo capta la mina también, y disminuye.)
5. Conflictos por terrenos comunales. (Ha comenzado recoger bosque para su cultivo. Han hecho denuncias. Población crece)
6. Conflictos sociales. (Dirigentes, se han vendido. Una empresa le paga 20 mil, y el dirigente se cae. Empresa compromete obra, pero después cambio directivo y no cumple.)
7. Conflictos Políticos. (Conflicto entre población y comunidad. No todos son patronados.)
8. Contaminación por agroquímicos. (Ya no tenemos lagartijas. Nos afecta también. Principal problema es mina Y RRSS)

While each of these can certainly affect environmental outcomes, Teofilo does not tell us how, but rather presents them as problems in and of themselves. The landscape of problems for Teofilo is thus one in which "environmental problems" (as Maura defines them) blend with others.[32]

Later, Hector and I sit down in his home in Vicos with more markers and another large sheet of butcher paper. We need to complete our homework assignment given by Maura at Urpichallay's workshop. We must pick one environmental problem facing Vicos from our list and draw a 'tree' illustrating its causes and effects. As usual, Hector dictates while I sketch out the tree.

> 'What is the biggest environmental problem in Vicos?' I asked him, to get things started.
> 'Water contamination,' he says without hesitation.
> 'So what causes water contamination?' I ask. Hector begins to narrate his view of this problem.
> 'Minerals do. Minerals also contaminate the air with dust, and people drag them around on their feet. The insecticides that people use to treat potatoes, these make the soil weak. People throw things on the ground...' And he proceeded to generated a long list of various issues I'd heard many times before.[33]

It was clear to me that Hector's narrative of the causes and effects of 'water contamination' were spilling beyond the definition of a single 'environmental problem' Maura taught us to isolate. Hector connected water contamination back to the other environmental problems we had originally brainstormed during the workshop, particularly other contamination issues. When I suggested that the weakening productivity of the soil, for example, might be considered a

[32] Maura's comment to the Tumpa group was simply to restructure these examples as pure environmental problems, then figure out which groups are involved in each so that it is clear who needs to be involved in the solution

[33] *Mineral, Viento, pulvadera, Personas traen con sus pie, Mineras explotando la mina, Insecticidas, venenos cuando curan papa, Chacra—debilidad con veneno, Lo que hechamos en la tierra, llega al agua, Humano(basuras, descartables, plásticos), Jabones, acietes, ace, Carros: petróleos, Desagues/latrinas, mal uso, callen contaminacion de residuos humanos*

separate problem, he reminded me, 'what we throw on the ground gets in the water!'[34] And went on to list the influence of trash, disposables, plastics, soaps, oils, and detergents. Hector was right, of course, about the interconnected nature of contamination. Nonetheless, I had some trouble translating his narration into a cause and effect tree that conformed to what Maura had assigned.

When I finished sketching out our tree, I held it up for Hector to comment on. Did it capture what he described? He scrutinized the chart. 'Too much already. Very complicated,' he said, indicating all the directional arrows I included which crisscrossed each other, a result of my attempt to capture the relationships I interpreted from his narrative. Hector's experience participating in workshops had made him savvy about how to present one's environmental problems—in the end, things ought not to appear too complicated and tangled.

Hector easily made connections between the "key" problem he picked—water contamination—and virtually every other environmental contamination and degradation issue I had heard Vicosinos identify in their interviews with me. His analysis did not match what Maura was prescribing, but he did understand the value of presenting environmental problems in a simplified light. Maura's technique of analyzing causes and effects was intended to make environmental problems more legible and, by definition, more manageable. The message was that promoters needed to learn to compartmentalize specific problems, teasing them away from "other" kinds of problems.

[34] *lo que hechamos en la tierra llega al agua!*

Teaching Promoters to Work with "The State"

At the beginning of one workshop, Maura asks the promoters why environmental management is important. One participant volunteers that it is important because 'the environment is part of everything.' 'That's right,' Maura says, 'It is a system. Like the human body, each component has a function. If you take one out, it will no longer function....when the social, economic, and environmental components interact without causing disequilibrium, we will arrive at a sustainable development. But we need lots of things to achieve that. We need management instruments. Everyone does."[35] Maura goes on to outline a hierarchical structure of management that starts with committees of resource users at the base and expands upward to national government agencies that oversee an entire resource, like water. This discursive construction uses the metaphor of the human body needing coordination among organs to ground one of the central tropes of training—that environmental management is effective when coordinated by an agency with a view from above. In this metaphor, the centralized state agency can be understood as 'the brain.' Teaching promoters about environmental management in this way includes convincing them that this top-level oversight and management of resources is necessary and desirable, and that it serves everyone's interests. This model of management not only perpetuates the separation of environmental issues as a 'component' apart from economic and social contexts, it prepares promoters to value the Peruvian state as the legitimate authority that coordinates these "social, economic, and environmental components" on a grand scale.

Yet the idea that the state is a benevolent manager of resources that takes everyone's best interests into account is not convincing. State bodies frequently fail to function as they should.

[35] From fieldnotes: '*el ambiente es parte de todos'....'es un sistema. Como cuerpo humano, cada componente tiene función. Si saca uno, no funciona. A nosotros, nos facilitaría para llegar a desarrollo sostenible. ...Parte social, económica, y ambiental. Cuando los tres componentes*

Thus, while trainers construct the state for promoters as an entity whose explicit reasons for existing and regulating are legitimate; they also acknowledge that the state is fallible and must be scrutinized, even policed by members of civil society. Promoters, they suggest, can have an important role both by 'helping' the state perform its functions (sharing helpful data, reporting to the correct officials about possible contamination issues) *and* by keeping it in line (being present during state visits to sites, following up on contamination issues, and, if necessary, filling complaints against noncompliant agencies).

Promoter education includes detailed information about how the state works, including overviews of key legislation and descriptions of state offices and functions at the nation, regional, and local levels. Social theorists caution against reifying "the state" as a coherent whole from which governance emanates (Foucault 1991; Gordon 1991; Li 2000). The "state" that promoters learn about in workshops is broken down into various agencies and actors with specific environmental management functions, yet these various entities are attributed a coherence beyond their individual functions. Further, trainers sometimes refer to "the state" (*el estado*) as a monolithic entity, contributing to the appearance of solidity. During one class, Maura presented an interactive diagram of the national environmental management system, with each relevant branch of the federal government and its duties clearly labeled. While her brief presentation was not sufficient enough for anyone present to memorize these offices and functions, the diagram successfully produced "the state" by represented the national management apparatus as a logical and well-organized system that effectively covered the environment in all its aspects. Similarly, in another exercise, Maura asked promoters to name the management instruments pertaining to irrigation water, from the lowest to the highest level. As promoters

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interactúan sin desequilibrarse, llegaremos a desarrollo sostenible. Pero necesitamos muchas cosas para lograr eso....Necesitan instrumentos para gestionar. Todos necesitan.'

named the organizations they knew, starting with their own local irrigation groups, Maura explained how these institutions constituted a connected and nested system, from the user base of irrigators to the Local Water Authority (ALA), and then to the National Water Authority (ANA), each one with its appropriate scale of action. Maura presented this system as one where management authority was distributed logically by scale, coordinated from users to the highest federal authorities.

Teaching about the functions of state units goes beyond simple presentations of facts about how "the state" works. Promoters are taught that they should respect and work with state authorities, because this authority is legitimate and its functions are beneficial to society. This was highlighted when it came to light, in the course of the workshop, that irrigation in one village was managed independently of ALA. Hector (a promoter) explained that water was distributed according to sector in his community:

Hector: There's an [irrigation] committee in Vicos itself.
Maura: It's not connected with ANA, ALA, it's independent?
Hector: We irrigate by sector. By week, in agreement with the sector. But they've just recently organized that. Before it was open access.
Maura: They don't have conflicts?
Hector: No, because we have enough water.
Maura: So then why did they organize like that?
Hector: Some people were taking more.
Maura: So a few little problems, then. ...ALA still doesn't come?
Hector: No
Maura: But you all would be agreeable to it?
Hector: Sure, why not?
Maura [to the whole class]: Our water source is the snowy peaks, the highlands. With climate change they are shrinking. We don't feel it right now, only the lower regions feel it but the higher areas don't. These organizations [such as ALA] keep track of the water resources. We don't have a good irrigation system, so we waste water. These organizations, when they get involved, they will watch over this irrigation infrastructure. We have to get organized. We have to coordinate with the authorities....In order to use the water [efficiently], there must be a study of the whole valley....each sector can't just manage its own water.[36]

[36] From Fieldnotes:
E: hay un comité en Vicos mismo.
MAURA: No tiene en cuenta con ANA, ALA, son autonomous?

Her message was clear: even if the highlands do not feel the squeeze of water scarcity, the lower areas that depend on the same waters do. It is the job of the state—in this case ALA in Ancash and then ANA nationally—to look at the big pictures, and manage accordingly. Promoters should coordinate with the appropriate state authorities because these oversee the whole watershed. The example gave Maura the opportunity to impress upon the promoters present the importance of cooperating with these authorities. Maura went on to explain how despite ANA's attempts to create *consejos de cuenca* (multisector organizations bringing together user groups for each watershed in coordination with ANA) there remain many "conflicts". Maura explains that without a management view that considers resource use at each altitude of the watershed, everyone loses. 'It [the watershed] is a system,' she explained, 'that can't function as independent units'. While state efforts to govern this system may not always work—something she acknowledges when discussing consejos de cuenca—Maura is able to tie the case of locally-managed water in Vicos to a lesson for promoters on the importance of large-scale planning in environmental management. If state efforts are thwarted at the lower levels (for example,

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E: Riegan por sector, por semana, de acuerdo con sector. Pero recién organizado eso. Antes, era libre.
MAURA: No tienen conflictos?
E: No, porque tenemos agua.
MAURA: Entonces porque ha organizado asi?
E: Algunos agarrando mas.
MAURA: algunas problemitas entonces…No viene ALA todavía?
E: No
MAURA: Pero ustedes estarían de acuerdo?
E: Sí, porque no.
MAURA: [to everyone] nuestra fuente de agua son los nevados, alturas. Con cambio climatico, se va desminuendo. Nosotros no lo sentimos ahora. Solo parte abaja siente. Parte arriba no. Esos organos [such as ALA] se ve el recurso hídrico. No tenemos buena sistema de riego, entonces perdemos agua. Esos organizaciones, cuando entran, van viendo esos infraestructuras de riego. Tenemos que organizarnos. Tenemos que coordinar con las autoridades. ...Para uso del agua, tiene que hacer estudio por toda la quebrada....no puede salir cada sector por su propio agua.

communities managing their own water and resisting new kinds of higher level oversight like ALA was implementing), then, Maura claims, everyone loses.

As the discussion of the ANA and ALA concluded, Maura made a revealing remark: 'Sometimes, the state itself deceives the people [*saca la vuelta al pueblo*]. But we believe, with the new water administration, they are appointing their people in order to better administrate the water.'[37] Even amidst encouragement to coordinate with state efforts, Maura acknowledges that the state, in practice, is fallible. This is a key problem discussed in training workshops. Idealizations of how the state *should* work elevate the importance of environmental management across scale and institution, yet trainers openly acknowledged that the actual coordination and compliance of state agents is often lacking. While state agencies may not be trustworthy, reliable, or do their job effectively, state administration has the potential to improve. Trainers encourage promoters to engage with the state in order to improve the application of its policies because, as Maura argues, the state is better positioned to manage the environment sustainably over larger areas for more people while autonomous local management usually focuses only on getting a smaller group's needs met.

Descriptions of state institutions were often accompanied by comments on the shortcomings of these institutions. For example, one trainer discussed how GRNYGMA, an environmental management authority within Region Ancash's offices, was not effectively implementing the policies set forth by the Ministry of the Environment, and SERNANP (The office in charge of managing the Huascaran National Park, located in Huaráz), which only has legal authority over the Park area, should also be managing the surrounding buffer zone. These kinds of judgments, shared openly by trainers and promoters during workshops, acknowledge a

[37] '*Aveces, el mismo estado saca la vuelta al pueblo. Pero nosotros creemos, con la nueva administración de agua, está poniendo su gente para administrar mejor el agua.*'

commonly perceived reality but also create a basis for encouraging certain kinds of roles for promoters—roles working with state authorities but also influencing state-led processes to help improve them.

Maura emphasized several shortcomings of state approaches to environmental management. These include a lack of legislature and environmental planning requirements, as well as failure to consistently follow the requirements that do exist. Lack of scientific study of the landscape prior to environmental planning or construction projects, she explained, was a waste of resources and potentially damaging. As part of her lecture, she described the construction of irrigation canals which caused natural springs to disappear due to the neglect of environmental impacts studies, and tap water installation projects that turned out to be useless because the water had not been sufficiently tested prior to construction to assure that it was fit for human consumption. Maura urged promoters to care about these mistakes, even when they were not the direct victims of them. She reminded them that the state uses "our" money to invest in these faulty public works projects, which in turn can create new resource problems for promoter communities. The solutions to these errors, she suggested, included more applications of scientific study on behalf of the state, as well as the increased involvement of promoters and their communities who needed to become 'organized' to work with state officials. She reminds promoters that they are 'leaders' and should be helping those who have 'knowledge' (*conocimiento*).[38] Likewise, state agencies should be working with local people:

> [Participatory] studies should be prioritized. Planning policies don't include this. They should include the people's perspective. The people know the history of a spring, where it used to be, on one side or the other. Without this? Bad investments. But this kind of historical study isn't required, so they don't do a thorough study.[39]

[38] '*Si somos líderes, apoyamos la gente que tiene conocimeinto, vamos.'*
[39] '*Debe prioritizar estudios. Normas de Planificacion no incluye eso. Debe incluir perspectiva de población. Ellos saben la historia de un puquial, donde ha estado un lado u otro. Si no,*

Promoters' roles are constructed during training as filling a potential link between a sometimes-faltering state and populations that 'know' the local landscape intimately. The leadership role imagined for them in Urpi involves coordinating with state officials in ways that could enhance the performance of these institutions.

The tension between these two messages—that promoters should respect the state's inherent legitimacy and importance in environmental management, but that the state is also fallible and must be closely monitored—can be understood as a product of new relations of governance in which the state is not the central entity from which patterns of governance exclusive emerge. In this case an NGO, Urpi, attempts to create subjects (promoters) compliant with what Bryant (2002) calls "regimes of practices of government", or 'simply fairly coherent sets of ways of going about doing things' (21). These regimes are distinct from the specific institutions and their practices that, ostensibly, enact them—by which I mean state institutions and practices they execute. While these "regimes" are associated with state practices, there is no guarantee that they are enacted in ways that directly match the regimes. So, at the same time that trainees are encouraged to learn the tools of a particular regime and become inculcated with its language and values, they are also invited to be critical of "the state" for not measuring up.

In his analysis of NGO interventions in the Philippines, Bryant (2002) further distinguishes between the 'biodiversity' regime and the 'empowerment' regime. He identifies the biodiversity regime with NGOs using scientific assessments to frame environmental problems in terms of genetic diversity loss. The 'empowerment' regime focuses on turning indigenous people into politically literate subjects. The training provided to promoters that I describe does not map precisely on these two regimes but includes elements of both. Genetic diversity loss, for

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Malas inversiónes. Pero ese tipo de estudio histórico no es requisita, entonces no lo hacen un estudio profundo.'

example, is but one rationale conveyed to promoters during workshops, while resource management for the purposes of sustainable development constitutes a more prominent theme. Yet, similar to the biodiversity regime, promoters are encouraged to embrace the importance of science for guiding the shape of environmental management. Maura comments (see above) on the importance of scientific studies that will produce knowledge suitable for guiding development projects and resource management efforts. Evidence of an 'empowerment' regime can be found in training promoters receive to help them navigate state policies and procedures for environmental monitoring and pollution reporting.

Bryant argues that both these regimes resulted in specific ways that NGOs targeted indigenous people to make them more easily governable and more visible subjects who follow state-sanctioned procedures, buy into state forms of land management and rights recognitions, and using opportunities to participate in resource management planning. If indigenous people in the Philippines were going to have input on 'decisions affecting the territory' they were required to accept limitations on their rights and legal guarantees. Because they conformed to what NGOs were offering, indigenous groups "became active participants in the extension of government... their own sense of appropriate conduct came ever more to be shaped by the political rationalities and modalities of state-sanctioned quests for ancestral domain" (288).

This deeper subjection of NGO trainees occurred despite NGO missions to the contrary—NGOs believed they were empowering indigenous people to gain greater autonomy and opportunity. Yet the form of empowerment NGOs were able to offer included subjection to regimes of governance (Cooke and Kothari 2001; Cruikshank 1999; Rose 1999). As the promoters I describe also became empowered to value law, science, and state intervention, and to analyze environmental problems in their home communities according to these standards and

seek out 'appropriate' solutions, they were also engaging in their own (and home communities') subjection. However, I argue that this subjection does not necessarily make them more docile to state agents.

During Urpi's training, a distinction is made between what constitutes "good governance" and "the state" as a set of bureaucratic procedures, policies, departments, and official actors. By making this distinction, Urpi trainers can encourage subjectivities that adhere to the good governance ideals set forth in training but still maintain critical attitudes towards state practices—specifically (Urpi hopes) the ways in which these practices do not conform to ideals of good governance, aka, the failure of departments and agencies to thoroughly fulfill functions, to corner-cutting practices that raise suspicions of corruption. What this suggests is that promoters' subjectivities are not being shaped to cooperate with the state unconditionally, but rather only to the extent that their co-operations strive towards ideals of good governance. In other words, as promoters are inculcated with particular "regimes of practices of governance" they are also encouraged to be critical of state practices, as these regimes are kept separate from the actual reality of the Peruvian state.

Promoter Dilemmas in Working with "The State"

Returning to the workshop description opening this chapter, in which promoters were listing the "environmental problems" in their home communities, we find examples of dilemmas promoters face making sense of and applying their new role working (critically) with the state in the context of community politics. Some of Maura's responses to promoter-identified problems reflect the idea that promoters must be proactive in interacting with state agents to ensure that state agencies use the correct behavior. The following example illustrates Maura's image of

promoters as proactively ensuring that the state follow its own protocols, while at the same time illustrating a case where promoters may find it complicated to do so.

As stated in the previous section, one of the environmental problems listed by the Vicos group was stated as follows,"The region began to build the canal but without analyzing the water, and after that they don't finish the project."[40] This statement references a public works project that was being administered by the Regional offices of Ancash. The alcalde Cesar Alvarez had committed to completing a series of projects for Vicos, one of which was the construction of a large cement canal (*Canal de Huapis*) that would carry water from the Honda Valley into Vicos as irrigation water. This statement of a perceived 'environmental problem' referenced two issues. One is that the construction began before an analysis was conducted on the water to ensure that it met standards for irrigation. The second was that the failure of the Region to complete the project. The combining of both complaints into one 'problem' is further telling of the way environmental problems are layered together conceptually by promoters, as discussed in the previous section. However, it also led to a discussion that exemplifies how promoters are encouraged to engage with "the state":

Maura: Is it true that they didn't conduct an analysis of the canal water? Because sometimes there's a lack of awareness.
Miguel: Yes, it's true. They didn't analyze it. Last year, we analyzed it with Vicente (and Urpi employee). It's contaminated.
RK: So we suppose that they didn't do an analysis before, because if they did, they wouldn't be doing the project.
Maura: you can file a denouncement!
RK: but they don't want that—They want the canal to be finished!
Renata (a promoter from another community): I see a problem that exists all over. There should be a development plan for everyone. To determine priorities in each area.
Maura: Yes. First, a strategic plan. Later, a specific plan. You all can [be involved] in the participatory planning! You can participate in this. There is participatory planning in the Regional Government, but many don't go to participate.[41]

[40] "*Empezó hacer canal (La Región) sin analizar agua, después no concluye la obra."*
[41] From fieldnotes: *Maura: Es cierto que no han hecho análisis del agua del canal? Porque a veces hay falta de conocimiento.*

Upon hearing that the construction of this canal had been initiated without water testing, Maura's suggestion was to file a denouncement. This kind of action fits with how Maura teaches the promoters and encourages them to be leaders. Filing a denouncement places the promoters in the position of policing state entities and demanding accountability when protocols are not followed. By denouncing the regional offices (or the specific corresponding officials responsible), promoters would be helping to ensure that state-led environmental planning occurs correctly and efficiently, thus avoiding costly—and environmentally damaging—mistakes made with public funds. Maura's second suggestion was that Vicosinos engage in the participatory planning process offered by subnational governments, ensuring better overall planning for Vicos as well as the other 'zones'. Like the first suggestion, this suggestion steers promoters towards utilizing existing state processes and policies to get what they want and simultaneously improve overall environmental planning and accountability of the state.

It should be noted that denouncements, although they constitute a role of disciplining towards the state stemming from the promoters, they still fall well within the state-sanctioned mechanisms for proper citizen participation. The goal of promoter engagement with the state, as taught in workshops, is not to defy or directly challenge the state authority or legitimacy, but rather to be yet another mechanism which ensures that the state's own (imperfect) actors/agents fulfill the functions of governance attributed to them. However, nonetheless the dynamic that the

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Miguel: Si es cierto—no han analizado. Ano pasado, ha analizado agua con Vicente. Está contaminado.
RK: entonces supongamos que no han hecho análisis, porque si sí, no estarían haciendo la obra
Maura: Pueden hacer una denuncia!
RK: pero no quieren—quieren que termina el canal!
Renata: veo un problema que existe por todos las partes--debe ver plan de desarrollo por todos. Para ver prioridades en las zonas.
Maura: si, Primero-plan estratégico. Después-plan específico. Ustedes pueden: plan participativo! Participan en eso. Plan participativo de la región, pero muchos no van a participar.

trainers hope for is exemplified well by Maura's suggestion—that promoters proactively watchdog the practices of state agents (be the officials, offices, etc) and hold them accountable in accordance with official laws and policies. The promoters are seen as mechanisms through which the state can be made into a better state: a more accountable, less corrupt, more rational entity, that acts in accordance with regimes of environmental governance.

My own participation in the conversation above reflects an understanding I had developed of the complexity of the situation around the construction of the Canal de Huapis through my fieldwork in Vicos. An elected official had originally promised to build Canal de Huapis during election season in the course of campaigning. As years passed, delays occurred for various reasons. Elected officials are known to pressure rural areas into reelecting them by delaying the completion of projects and then claiming to need reelection to finish, or simply not finishing them at all. Vicosinos has recently been on strike against the Region, marching en masse to the Ancash headquarters and demanding that this project (as well as a few others) be completed. I knew that Vicos was using the full force of the community's organizational ability to fight for this project's completion.

As suggested by my comment, I saw that filing a denouncement would put promoters in an awkward position. Denouncing the Region for not testing the water, and thus building an irrigation system that would probably harm crops, was potentially counter-productive to the aims of the majority of Vicosinos focused on pressuring the Region to finish the canal. Vicos promoters—as well as the Vicos leaders and many citizens in Vicos I talked to—knew that the waters to be brought in the canal were unsuitable for agriculture and would potentially harm their crops. Professional testing of river water in the Honda Valley following APS had indicated persistently high levels of lead and arsenic, despite mitigation efforts (Recharte et al 2002, 57).

More recent testing paid for by Urpi reflected similar levels. Among the Vicos leaders, the priorities were established. First, get the Regional government to finish the canal. Then, seek out solutions to the water quality problem, perhaps with another project that would bring cleaner water from a different source. Combining multiple water sources could lower the overall relative levels of lead and other minerals, thus allowing the water to conform to standards and increasing quantity. These strategies were designed to manage a context of multiple problems which included political challenges as well as environmental concerns.

Maura's suggestion put promoters in an awkward relationship with their own elected community leaders who are making these strategic decisions. During the workshop, the Vicos promoters simply listened to Maura's suggestions, but in my conversations with them, they empathized with community leaders (and general assembly members) decisions about pressuring the Region but also sometimes criticized their leaders for not caring enough about contamination problems. Their dilemma provides an example of the way their 'environmental problems' fail to fit neatly into the categories they are learning. The strategy chosen by the Vicos assembly for dealing with the canal entailed navigating both problems associated with it, but it also appeared to give little regard for proper protocol (prior testing of the canal water) and for contamination as a serious problem.

Conclusions

In workshops like this one, promoters like Miguel and Hector are instructed in basic information that will help them become 'environmental leaders' for their communities. Promoters are imagined by trainers to fill gaps where state functions fail, and to translate local environmental concerns into technical objects to be analyzed, managed, and solved. Thus, they are taught to reframe their community's environmental problems into new frameworks of understanding; yet these omit important aspects of the complexity of promoter's context. They are also taught what the functions of the state are, but warned that the state often does not properly conform to its duties. As promoters, they are told they ought to act in ways that encourages the state to function as it should. Sometimes promoters (or, their populations / their leaders) do not want to pressure the state to "act as it should" but rather pressure the state to act in ways that makes sense for what they need and are more likely to be efficient.

Workshops such as this exemplify attempts to shape subjectivity of promoters to be agents who will hold the state more accountable for its environmental functions. Such attempts do not always work—or if they do shape promoters in that way, they end up being at odds with their leaders whose main interest is not policing state practices but using state practices (correct or not) to accomplish meeting a need in the community. There is a potentially conflict between getting things done 'correctly' and just getting things done. In a later chapter, I describe the situations, frustrations and strategies that trained promoters find themselves in when attempting to dialog with mines and state agents (Chapter 5). In the case of Vicos specifically, I describe the complex processes the community engaged to get what they see as better outcomes in relations with mines (Chapter 6). Even though promoters feel they have benefited from their technical

training, they apply this training in limited ways and for complicated reasons. However, in the next chapter, I turn to the other central content of Urpi's training: the Andean Cosmovision.

Chapter 4:
Possibilities of an Indigenous Andean Conciencia

In 2007, I attended a meeting between the environmental promoters of Vicos and an environmental committee from the district of Huallanca.[42] Urpichallay (sometimes called "Urpi") hosted such exchanges between committees from different localities so that environmental promoters around Ancash could learn from each other's' strategies to manage resources. In this case, the group of Huallanca promoters had taken a bus to Vicos to meet with members of the Vicos committee, been shown around the community, and seen a demonstration of Vicos promoters (Hector and Vicente) testing river water. Urpi staff were there, facilitating the discussion. After we all sat down in the sun outside the Vicos community offices, Huallanca's promoters began asking the Vicos promoters a range of questions about the nature of their environmental problems, relationships with mines, local politics, and monitoring efforts. As the discussion turned towards the organizational structures in the Vicos community, members of the Huallanca committee began to comment positively on the strength of Vicos's 'traditions' and 'ideals'. Finally, one of the Huallanca promoters pointed out the apparent cultural difference between Huallanca and Vicos:

> One man [Alan] from H [Huallanca] contemplates how such a large community as Vicos is so well organized, yet H is smaller and disorganized. Is it because here, there is less influence of western identities? They have this love for the land? (*amor por la tierra*) Camila [one of Urpichallay's Program Directors] begins to describe the *Cosmovisión Andina*, with its respect for all things, the emphasis on conversing with nature the way one converses with a person. Here,[she says] they take care of their crops, they raise them (*criar*), not just grow them. They respect the land, they show respect to *pachamama* [earth mother]. She elaborates with several *señas* [local bioindicators]. Camila describes how people guard the secrets of their ancestors. They are working with Urpichallay to recuperate these *saberes* [ancestral knowledge], one Vicosino man says….Camila emphasizes that Huallanca must have its own saberes, because 'we are all Andean' (*todos somos andinos*). 'The point is to not discriminate against them. We teach them in the schools here,' she says. 'H can recuperate their knowledge as well.' Another

[42] COGEMA (*el Comité de Gestión del Medio Ambiente de Huallanca, or the Huallanca Environmental Management Committee*)

Vicosino chimes in to say that 'it is not easy work recuperating the [ancestral] values. It takes a lot of heart, but little by little, you can find your saberes.'
[from fieldnotes, 6/15/2007]

As the discussion above turned to Vicos' culture, the message seemed to be that Vicos was successful in resource management because of their Andean worldview (Cosmovision). It was primarily Camila, one of Urpichallay's leaders, who described this *Cosmovisión Andina* in response to Alan's questions, reinforcing the idea that the Andean worldview supports environmental protection efforts. Urpichallay's assertion that the *la Cosmovisión Andina* leads to environmental stewardship is one of the strongest rationales they have for revitalizing it among rural populations and encouraging others (in state offices, for example) to value it.

This moment at the Vicos-Huallanca exchange illustrates several points I will be making in this chapter regarding Urpichallay's understanding of Andean culture and their approach to it in projects. Being indigenous Andean, and what that means for particular actors, is engaged and sometimes altered through tactics to get people to be more environmentalist, and Urpichallay forms a large part of that effort in Ancash. Urpichallay staff posit a link between Andean culture and motivation for environmental stewardship, as Camila implies above, and they emphasize some specific manifestations of this link, such as ritual offerings. Urpi staff perform as experts on Andean culture and teach others about this culture, including those who are Andean natives (such as the Vicos promoters in the example above) and those who look to others to model Andean culture (such as promoters from Huallanca), as well as in other contexts (such as state officials).

In the previous chapter, I examined training workshops as a context where subjectivity for environmental promotion is actively shaped by Urpi, with an emphasis on the technical knowledge promoters are trained in about the environment, environmental problems, and their

role in relation to state and governance of resources. In this chapter, I examine another important piece of the content of the subjectivity Urpi hopes to create by focusing on *la Cosmovisión Andina* (hereafter Andean Cosmovision or Cosmovision) as a form of indigenous conciencia. I start this chapter with a theoretical overview of my inquiry and an explanation of my data collection and analysis methods. Then I provide some background on Urpichallay. This leads into a historical background on the concept of indigeneity in Peru, from the late 1800s through the agrarian reform to the present context of state-led multiculturalism and culturally-aware international development. Then, I analyze Urpichallay's construction of the Andean Cosmovision, describing its features and illustrating how the staff talk about it, perform it, and use it as an interpretive tool. In the second half of this chapter I turn to the case of Vicos, focusing on specific concepts and practices that Urpi encourages as part of the environmental conciencia that they try to cultivate. I use specific rituals (e.g., *pago a la tierra*) and understandings of nature (e.g., *pachamama*) as examples in my discussion because of their centrality in Urpichallay's discourse. I look at the interpretations of the relevance of these ideas as they are applied by the promoters Urpi has trained versus other individuals who have different relationships with Urpichallay, including no relationship. I end by considering the broader repercussions of the efforts to combine environmental stewardship with the affirmation of an indigenous Andean culture in this context. What I aim to show is how this discourse—Andean indigeneity as a source of conciencia—impacts campesino actors, both as an aspect of their own subjectivity and as a template to which they are compared.

Indigenous Environmental Subjects

I approach these questions through the theoretical lens of subjectivity because I am interested in the processes which change people's perceptions of themselves and others as indigenous Andean, not the degree to which indigenous people (as a static category) are good environmental stewards. Urpi's discourse about being indigenous Andean creates an "indigenous slot" (Li 2000; Trouillot 1991), but who manages to fill this slot, and for whom, and under what circumstances, are potent questions. When actors see each other as more, or less, indigenous, this shapes their assessments and judgments of each other's' efforts to care for nature. Thus, this chapter traces how certain aspects of Andean indigeneity have been linked to environmental conservation, and what happens when these ideas are then applied by differently situated actors among Urpi's trainees and others who encounter Urpi's discourse.

Unlike the other two environmental discourses I describe in this dissertation, which are each based on universalist understandings of people and nature (economics and science), the Andean Cosmovision posits a conciencia linked to a specific category of people. In the field of political ecology, scholars have argued that certain categories of people such as "women" (Mellor 2000; Shiva 1988), "indigenous people" (Escobar 1999; Ingold 2000), and "the global poor" (Martinez-Alier 2002) are more inclined to be environmentally conservationist because of their respective positionalities. Arun Agrawal's work challenges these arguments, arguing instead that class, gender, and caste categories are not the most germane predictors of a person's relative environmental subjectivity. In his research, it was the individuals drawn into regulatory responsibilities that came to embrace conservationist priorities, regardless of their gender or caste. Subsequently he argued that scholars should "move away from abstract, static categories of social classification...using social categories such as gender and caste to try to understand

subject formation serves only to obscure the processes through which subjects are made" (Agrawal 2005, 197).

But Agrawal's approach focused on measuring degrees of environmental subjectivity among respondents, thus he analytically separated out environmental attitudes from other aspects of subjecthood and measured them separately. His surveys used a Likert scale to assess environmental attitudes, which he then quantitatively analyzed for correlations with the respondent's sex, for example. This approach not only reduces gender to biological sex, it also fails to consider how environmental subjectivity and other kinds of categorical differences might be co-produced or otherwise interface. For example, how might indigeneity—via associated categories of person, worldview, and identities that are in use socially—be transformed along with, in response to, or as a side effect of efforts to shape environmental subjects? Determining whether ethnic or gender categories correlate with a greater or lesser environmental consciousness does not tell the whole story.

In this chapter, I consider how concepts and performances of indigeneity and gender in the Andes are associated with environmental subjectivity and are, via Urpi's training, reworked through efforts to create environmental subjects. I also consider how these ideas about being indigenous Andean might interface in other ways with people's social understanding of themselves and their role in protecting resources. Urpi's ideas about Andean culture are only embraced by some campesinos, so this chapter also describes the ways in which they are contradicted or interpreted differently by trainees. I consider how people reorient their sense of self in the context of NGO projects that engage them as indigenous people, and through an analysis of this process I hope to contribute to a more radical rethinking of the relationship between processes of subject-making and identity categories, especially as they relate to cultural

identity and conciencia. Shifts in different aspects of subjectivity occur, I argue, as the result of stewardship roles and Urpi's training, but not always in ways that match Urpi staff's understanding of the relationship between indigeneity, gender, and environmentalism.

In the case of Urpichallay, there is an especially focused effort to shape environmental and indigenous subjectivity together. As previously stated, Urpi's discourse focuses on an indigenous Andean view of nature in which people and pachamama care for each other out of respect and co-nurturing dependency. Indigeneity (as a set of practices and beliefs, as well as a category of self-identification) is thus part of the content of the environmental subjectivity they encourage. Encouraging people to be environmental stewards in this specific way clearly overlaps with encouraging this other aspect of their subjectivity. How, and in what way, is indigeneity reworked for Urpichallay's trainees? What kinds of effects does Urpi's discourse have beyond their trainees, in the broader social context in which they must act?

This chapter's analysis draws on the data collected during participant observation with the NGO Urpichallay including staff interviews and observations of training workshops in 2008, 2009, and 2010-2011. My knowledge of Urpi further draws from the internal meetings at the NGO, their written materials, and the numerous public events where I observed Urpi staff representing the NGO.[43] I conducted a qualitative text analysis using materials such as recent grant proposals, promoter training modules, fieldnotes from promoter workshops, and other activities in which Urpi staff communicated with promoters (such as presentations of testing

[43] I observed internal staff meetings when invited, which was 7 occasions. The other kinds of public and inter-institutional events where I observed Urpi staff included environmental fairs, policy workshops, the Vicos anniversary parties, regional government meetings, etc. Also, virtually all activities that involved promoters outside their communities were attended by at least one staff member, usually Nestor.

results in communities). In 2008, I also conducted a participatory activity at a staff meeting which I discuss in this chapter.

This chapter also draws on interviews and participant observation I conducted in Vicos, including interviews with promoters and their partners, and interviews with Vicosino couples in randomly selected households. I coded across this body of data for terms people used to describe and explain culture: *tradición* (tradition), *costumbre* (costumbre), *cultura* (culture), *Andino* (Andean), *cosmovisión* (cosmovision), environmental concepts in Quechua that Urpi staff associated with the Cosmovision (*Tayta Inti, Mama Killa, yakumama, pachamama*[44]), *ritual*, *ofrenda, pago* (ritual, offering, and payment, respectively: all different ways of talking about Andean rituals), as well as actions that matched this category, references to the Incas, to ancestral practices or things ancestors did or the ways they lived.[45] For each concept, I looked at when it was used, by whom, what was explained, and how understandings of concepts varied. For each of the kinds of references to culture listed above, I checked for associated explanations of environmental care or degradation. I also coded practices I observed in Vicos, including those I saw as environmentally protective or damaging, or that had been described to me as such. "Ritual" practices Urpi described were not always seen in the same ways by the same people (including myself), so I took notes describing practices that matched or were similar to what Urpi staff described to me as Andean rituals, or that were pointed out to me as "rituals" by other actors. Also, in interviews with Vicosinos, I asked more indirectly: "do you do something *(haces algo*) for the earth or for pachamama?" and "what kinds of things to people do to take care of (*cuidar*) the earth or chacra?" to see if people described rituals in their responses. I then

[44] Including patsamama and pachamama. I explain this distinction later in the chapter.
[45] During interviews, I asked specifically about *la cultural Andina*, *la cosmovisión*, and both *pacha- and patsamama*, so I was able to compare answers directly.

categorized the explanations that people gave about these practices and concepts to identify what different associated ideas of taking care of or nurturing the earth were present, and for which actors.

The NGO *Asociación Urpichallay*

Asociación Urpichallay is a Peruvian NGO founded in 1992 by Fermina. As a child growing up in Cajamarca, Fermina was affected by the way rural farmers moved aside when she and her father walked on the sidewalk.[46] She pursued a degree in Sociology from the Catholic University in Lima and spend the earlier part of her career working on children's rights and wellbeing in Southern Peru. Her early work in the Huaylas Valley focused on childhood education in rural schools, rights of children, as well as hygiene and health. She won an Ashoka fellowship in 2001 for her work.

Urpi's mission is the "revaluation of Andean knowledge and technology in order to improve the quality of life of rural people."[47] The adoption of a cultural focus was described to me during staff interviews as having resulted from an institutional learning process. Because of the challenges of the NGO's early projects, leaders concluded that it was necessary to embrace a deeper understanding of Andean culture in order to design projects that were relevant to campesinos. Otherwise, people discontinued the activities initiated once the project was over. A similar narrative can be found on the Ashoka website, which gives a summary of Fermina's work:

> After five years of working in rural schools with the most advanced educational methods available, Fermina concluded that the children were not assimilating **because she and her colleagues in Urpichallay did not know enough about the children's culture**. It was at that

[46] From the Ashoka website biography: https://www.ashoka.org/en/fellow/Fermina-rojas, Accessed 3/24/2017
[47] From 2010 grant proposal written by NGO staff

> point that she realized that tackling education alone, without taking into account the other challenges facing rural children and their families, was not enough. With that knowledge, she began to develop an integral methodology with four main components: biodiversity and agriculture, health, education, and environmental conservation, all under the focus of cultural affirmation[48] [Ashoka website text, emphasis mine].

This epiphany about the importance of culture as necessary for successful development projects led to a new focus in the institution. Urpi sought connection with PRATEC (*Proyecto Andino de Tecnologías Campesinas*, or Andean Project of Peasant Technologies), a Peruvian agricultural NGO that provides training related to Andean agricultural technologies and sees the Andean worldview as a means of achieving sustainable development (Mayer 2001). PRATEC trained the staff, and their affiliation with PRATEC continued as Urpichallay became one of their NACAs (*Núcleo de Afirmación Cultural Andino*).

Urpi's headquarters is located in Marcará, a town in the Huaylas Valley about (27) km from Huaraz, the capital. Urpi was working with communities in a variety of provinces and districts around Ancash, many of which were Campesino communities. Urpi has a 10-year relationship working with the Campesino Community of Vicos, whose plaza is just six kilometers up the road from Marcará. I observed Urpi's projects in 2007 and 2008, then again in 2010 and 2011. Towards the end of my fieldwork period in 2011, Urpichallay's directors voted to change their name to *Asociación Educativa Urpichallay* and change their focus away from the rural development to projects like the ones I observed.

Urpi had between 9 and 13 employees during the years I conducted fieldwork, all of whom were Peruvian and one of whom was a Vicosino himself.[49] Others were from other communities nearby, and a few specialists came from other parts of Peru. About half of the

[48] https://www.ashoka.org/en/fellow/Fermina-rojas, Accessed 3/24/2017
[49] Vicente Reyes, who first became involved with the NGO during Agua Para Siempre. There was also another Vicosino who had been previously employed by the NGO, but not during my fieldwork.

employees were technicians who provide logistical support in Urpi's projects. These individuals made the numerous visits to the communities where Urpi worked to coordinate meetings and convey information about upcoming workshops. They collected data for project reports to funders and assisted in community activities related to Urpi's projects. These technicians themselves all came from campesino communities and spoke Quechua as well as Spanish, an important skill in this region where campesinos speak it as a first (and sometimes only) language. As lower-level employees, the technicians had less administrative decision-making power in the NGO, but lots of on-the-ground influence. Above technicians were specialists, for example in communications or agriculture. These individuals provided more direct training to participants and oversaw project activities specific to their areas.

Urpi's major planning and management was handled by three leaders who managed the projects, wrote the proposals that kept Urpi funded, and coordinated with donors and other institutions with which Urpi had relationships. These were Fermina, Hugo, and Camila. Camila is Fermina's niece, and Camila and Hugo are married with two school-aged children who sometimes came along on day trips or when the NGO had activities to run. Both Hugo and Camila were incredibly supportive of my research from the beginning and invited me to relevant events, and even to their home for dinner. Fermina kept her distance during most of my research but toward the end also invited me to her home. While none of them spoke Quechua as a first language, they did understand and use some Quechua terms. They primarily conversed with project participants in Spanish. During 2010-11, Hugo was the director of Urpichallay and in charge of their environmental project. Hugo had a Master's degree in Biodiversity and Andean Agriculture, and a BS in Animal Husbandry. Urpi's project participants often referred to him as "*el Ingeniero Hugo*" (Engineer Hugo). Camila's area of expertise was childhood, education, and

gender. Fermina Rojas was leading the agrobiodiversity project described below. Other office employees included administrators (accountant and secretaries).

In 2010, two major projects were underway: KOFI, an agrobiodiversity project for strengthening both subsistence and market integration, and the project Agua Viva, focused on environmental promoter training and water protection. I focused on the latter, which was headed by Hugo. Agua Viva was in some ways a continuation of the work begun with Agua Para Siempre (1999-2001), Urpi's first venture into what became their environmental focus area. APS was a community resource management project conducted in the community of Vicos in collaboration with an NGO called The Mountain Institute and with funding from USAID. This project won an award in 2002 from the World Bank as one of the best pilot projects in Peru.[50]

Subsequent projects were funded by other sources, including the Antamina mining company, *Tradiciones del Manana*-FIAC, and *Fundación Avina*. During my research, KOFI was funded by a German organization called *Terre de hommes* and Agua Viva by Canadian Lutheran World Relief (CLWR). Urpi staff had a busy schedule with numerous workshops held on location in the communities they worked as well as in their own headquarters on topics such as organic farming, food preservation techniques, environmental management, political organizing, curriculum development training for teachers (to develop culturally-relevant curriculum). They also worked with local schools on recycling and gardening programs, media programs for youth (making magazines and radio spots, for example), work parties to preserve water springs in rural areas, and seed exchanges to promote native seed preservation among farmers.

This chapter focuses on the Andean Cosmovision, which I understand as a construction of indigenous subjectivity. It is significant, however, that Urpi's language of choice for their

[50] cited in Urpichallay's institutional records

advocacy work was one of promoting greater understanding of competing "cultural worldviews" rather than as advocating for the rights and culture of an "indigenous people." This is in part because native Andeans call themselves *campesinos* (peasant) and often eschew the label indigenous. Urpi's discursive choices connect to the specific moment of intercultural politics in Peru (and Latin America), which emerges from a history of Peruvian conceptualizations of ethnicity and its related struggles over the place of native Andeans in the nation. The next section describes the relevance of this history and background.

The "Indian Problem"

Peru's independence resulted in a nation divided, with elites and indigenous people inhabiting dramatically different spheres (Thurner 1997). Debates about the countries prospects for progress came to focus on this divide, named the "Indian Problem": what would be the place of indigenous people in the post-colonial nation? Debates around this problem often focused on the 'backwardness' of the Andes, which was seen as holding back the nation's progress. *Mestizaje* and *indigenismo* were two intellectual movements in Peru that addressed the Indian Problem in the late 1800s and 1900s and shaped the context within which contemporary cultural politics in Peru emerge (de la Cadena 2000).

Other Latin American nations embraced mestizaje as the political ideology on which to build newly independent nation. Mestizaje refers to the hybridizing of 'races' in the Americas: the "*indios*" (indigenous people; literally "indians") and former colonizers. Elites in the Americas and Europe disagreed about whether racial mixing would produce a superior or degenerated 'race' (de la Cadena 2000), but it was through mestizaje that new nationalities were racialized and imagined into being. The concept perpetuated ideas of the racial inferiority of

native people and invalidated the existence of living native groups as detrimental to national development. Elites saw their assimilation as necessary for progress for the modern nation. In Peru, mestizaje was initially popular in the 19th century, but unlike neighboring Andean countries, it was not fully embraced as a central nationalist idea of state policy (de la Cadena 2000). Peru's difference in this regard is due partly to the *indigenismo* movement which began in the late 1800s and offered a different political ideology. This literary movement among intellectuals was influential in political culture and grappled with the Indian Problem directly. *Indigenistas* varied in their arguments, but were sympathetic to the plight of "indios" and tended to glorify their past. Some advocated assimilation through education, while more leftist writers blamed landowning elite for the degradation of the indigenous people and advocated for land redistribution (Garcia 2005, 73).

An important voice that emerged in the early 1900s Peru was José Mariátegui, whose writing reframed the Indian Problem as one of class. Mariátegui argued that oppression of indigenous people came from land tenure system. The feudalism of the nation (the hacienda system) had to end, he argued, and Peruvians needed to unite and help end the oppression of the Indians. Throughout the early and mid-1990s, indigenous uprisings, opposition to reform from the landowning elite, and indigenistas (varied their arguments though they were) kept the national question about the progress of the nation focused in the Indian Question (Garcia 2005, 66).

Making Campesinos: The Agrarian Reform

In 1969, President Juan Velasco declared that the "indios" of the highlands would now be called *campesinos* (peasants) in an effort to call attention to the class-based structural inequalities

that defined their lives. In this way, campesino came to signify indigenous people in popular discourse. Velasco also referred to the cultural markers of indianness, such as speaking Quechua and Incan history, as "Peruvian;" this was yet another way to "evoke and erase" the Indian Problem (Garcia 2005, 75). Velasco's land reform intended to change the material existence of campesinos by distributing land to those who worked it. While he initiated widespread land reform that (eventually) dismantled the hacienda system, the reform dramatically fell short of its goals and exacerbated tensions between ethnic groups and classes, with many landless peasants receiving no land. Thus, in many ways, the agrarian reform remained an unfulfilled promise.

Contemporary understandings of ethnicity in Peru reflect this history. The people in the Andes—native Quechua speakers who descended from members of the Incan empire—continue to refer to themselves as campesinos. Indio, on the other hand, is considered an insult, since it signifies someone ignorant (whose knowledge is backwards) and poor (made poor through the oppression and disenfranchisement throughout the country's colonial and postcolonial history). The term *indigena* (indigenous) in Peru most commonly refers to people of the lowland interior—the selva. *Mestizos* (literally, 'mixed' people) are understood to be the result of hybridization and are hierarchically positioned as socially and economically superior. In addition to this complex intersection of socioeconomic and racialized categories, there is also a performative aspect to ethnic identity in Peru (Canessa 2005; Van Vleet 2005). Mestizos and campesinos are often indistinguishable by phenotype, so intersubjective encounters allow people to be identified (and to express their identity) through dress, conduct, manner of speaking, livelihood, etc (Leinaweaver 2008). These cues are adopted and evaluated contextually, and can also vary locally and situationally (de la Cadena 2000). Additionally, these categories interrelate complexly with other categories of identification such as gender, class, and nationalism (Bigenho

2005; Canessa 2005; de la Cadena 2000; Colloredo-Mansfield 2002; Goldstein 2005; Van Vleet 2005).

De la Cadena's (2000) analysis of the way people in Cusco resignified "Andean culture" in the 1990s is pertinent here. Rather than equating Andean culture with "being indian", upwardly mobile individuals from the rural Andes formulated understandings and personal performances that exceed this scope. They rejected the idea that they were "indians" while still practicing Andean cultural identities (for example by performing traditional dances). They understood Indianness, which was still stigmatized, as a failure to achieve educational improvement. This opened up Andean culture to identification more broadly and allowed it to be claimed by people who, in other ways, identified as mestizo. Cultural achievements became more important to these actors than innate characteristics, even though there was still discrimination against those who had not "achieved." This kind of dynamic use of "culture" reflects part of the context in which Urpi came to operate: the concept of an Andean "culture" opens possibilities, and might even challenge existing hierarchies (although de la Cadena argues this was limited in her case). Urpi's interest in validating Andean culture more broadly is illustrated in the opening description of the Huallanca-Vicos encounter, when Kartina suggests that Huallanca can recuperate saberes because "we are all Andean."

In this dissertation, I use both the terms "campesinos" and "native andeans" to broadly refer to those who live in rural Andean communities and speak Quechua. Not all of these individuals live in official campesino communities, but they do self-identify as campesinos. I rarely use the term "mestizo" because individuals in my research did not identify themselves to me in this way. Further, I recognize that the campesino-mestizo dichotomy is problematic (de la Cadena 2000; Garcia 2006; Weismantel 2001). I met people who did not obviously fit into either

category, such as professionals who lived in Huaraz and conducted themselves in Spanish during all our interactions but turned out to have a *chacra* (farm) and speak Quechua. Likewise, I met Vicosinos, who spoke Quechua at home but carried out professional lives in Huaraz. For that reason, I have opted to describe what I know about individuals, when it is relevant, in the context of each ethnographic moment and refrain from making assumptions about people's ethnic identification. This approach avoids overly simple classifications of people and fits my goal of recognized people's multifaceted and complex subjectivities.

The Rise of Cultural Politics and Cultural Development

The 1980s and 90s marked a period when cultural recognition and identity-based political movements surged in Latin America, referencing a long history of native resistance to colonization while targeting exclusionary policies and corruption (Postero and Zamosc 2004). These were termed "new" social movements because they represented political mobilizations in which identity was important (Alvarez et al. 1998). "The return of the Indian" (Albó 1991) seemed to shift struggles around exclusionary policies and inequality from class to ethnic-based groups. Social scientists debated whether the focus on indigenous identity was a beneficial way to frame political demands (Jackson and Warren 2005). Indigenous movements helped produce opportunities for groups to assert rights to difference and autonomy as well as control over resources on the basis of their identities (Conklin and Graham 1995; Greene 2006), for example as rights to ancestral territories that have spiritual and cultural significance (Kent 2008; Smith 2005). However, they have also produced dilemmas around questions of representation and the limiting aspects of these politics.

Coinciding with these movements were new forms of global governance, including pressures on Latin American states to adopt neoliberal economic policies, and the role of international institutions in confirming the importance of indigenous peoples in Latin America. International institutions such as ILO (via convention 169) and the UN (the declaration of indigenous people) further legitimized indigenous people's claims while state reforms in specific Latin American countries merged liberal policies with multicultural projects. This "neoliberal multiculturalism" was analyzed by some scholars as a limit to the radical potential of the movements (Gustafson 2008; Hale 2002) Hale argues that "the logic of transnational capitalism" with its cluster of policies that reduce state responsibilities for welfare, apply market principles towards governance, and emphasize individualism, threatened to disarm indigenous politics by granting superficial forms of inclusion and limiting rights to those that are conducive to neoliberal citizenship (Hale 2002, 486). But new transnational influences also opened possibilities for building alliances across borders and exerting new kinds of pressure on states (Keck and Sikkink 1998).

In the case of Peru, social movements were slower to adopt ethnicity as identity politics (Gelles 2002). Indigenous mobilizations did occur in the lowlands and highlands but did not organize on a national scale the same way they did in Ecuador and Bolivia (Garcia 2006). For example, while Alejandro Toledo's presidential campaign in 2001 emphasized his Andean identity, native people of the Andes eschewed this category themselves, continuing to organize around the identity of campesino; meanwhile, Amazonian people in Peru were more apt to embrace ethno-politics (Greene 2006). The eventual emergence of a 'national' indigenous movement in Peru involved state policies and NGO networks.

Garcia (2005) traces one aspect of this emergence—the recent intercultural education program in Peru. While the campaign for bilingual education (Spanish-Quechua) at first glance appeared to be an "indigenous movement," Garcia argues that it was imposed, by state agencies and collaborating NGOs, upon rural people against their will. These groups used "indigenous activism" to selectively target rural Quechua speakers with reformed education programs. However, this "activism" excluded the direct involvement of the most marginalized indigenous communities in favor of the agendas of indigenous intellectuals and mestizo NGO workers who saw themselves responsible for convincing rural campesinos that bilingual education was important way for them to maintain their culture. Garcia's argument advances an important critique of indigenous identity politics in Peru by showing how it became a tool of governmental power, and, yet another manifestation of assimilationist policies—rural citizens now needed to be assimilated into an 'intercultural' (multicultural) society.

Garcia's analysis raises questions about the role of NGOs in indigenous movements. When social movements are bureaucratized through NGOs it affects how politics are engaged and how native people are positioned within these movements. Ramos (1994) describes how non-native NGO workers in Brazil upheld ideals of native people as "innocent" in need of "help." In order to obtain this help, native Tukano people were encouraged to fit the romanticized image held by whites. Garcia's analysis illustrates a similar phenomenon in Peru, as mestizo NGO workers felt they needed to teach campesinos to "value" their own culture. When NGO workers act as experts on culture, this can become another layer in the ways indigenous people are targeted for improvement.

In Peru, the idea of culture has also become a more central concern in development projects since the 1990s as this framework was adopted and celebrated by both states and

international agencies (Radcliffe and Laurie 2006). NGOs in Peru thus find roles leading an "indigenous movement" and as part of the development apparatus that targets indigenous people with culturally-sensitive development. This positions NGOs to engage in cultural politics while also doing development work: on the one hand working to redefine indigenous citizenship and offer alternative modernities drawing on indigenous worldviews, and on the other hand targeting campesino with improvement projects and asserting expertise on their culture.

It is within this context that PRATEC, the Peruvian organization that critiques mainstream development as irrelevant and damaging for Andean peoples, has become a source for alternative approaches. PRATEC was founded in 1987 by first generation members of Andean communities that received a Western education (university degrees). After working for many years in development projects, they decide to reject the development paradigm and become spokespeople for Andean ways, which they contrast with Western ones. From their perspectives, most approaches to development in Andean Peru fail because they invalidate peasant knowledge and practices (Apffel-Marglin 2002). PRATEC instead advocates the strengthening of the Andean Cosmovision, which they see as devalued from years of colonizing projects yet persisting across the Andes. Their methods include recuperating pre-Colombian organization and technology (Apffel-Marglin 1997). They connect NGOs in Northern and Southern Peru though a pan-Andean understanding of this Cosmovision. PRATEC's approach has been criticized by other scholars for mythologizing the Andean past (Ackermann 1996) and using social science evidence selectively (Mayer 2002). Other researchers have argued that PRATEC's work is a radical challenge to hegemonic development (Apffel-Marglin 2002; Garroutte 2003).

Urpi staff have had their subjectivities shaped by PRATEC's training. Even technical staff have been trained in PRATEC's conceptual approach. This training shifted Urpichallay's

institutional approach and, according to the narratives of the staff, transformed their relationships with Andean communities. Once Urpi, as an institution, embraced the Andean Cosmovision, they became much more effective and formed close collaborative relationships with campesinos. While the NGO conducts internationally-funded projects that fit with some mainstream development approaches (e.g., income generation), they embrace critiques of development and position their work as significantly different from other development NGOs. And, while Urpichallay collects detailed information from their participants about local ancestral practices and knowledge, PRATEC's publications continue to serve as important sources for their interpretations of Andean cultural knowledge. This is the basis for much of their expertise as well as their critiques of development.

In the next section, I describe the Andean Cosmovision from the NGO's institutional perspective. My intention is not to evaluate Urpi's construction of the Andean Cosmovosion for its accuracy in comparison to anthropological descriptions of Andean ecology, although there is a body of research that addresses how people in the Andes define and understand environmental processes to which Urpi's discourse could be compared (see for example Allen 2002, Murra 1968, Guillet 1981; Bolin 2009; Gose 1994; Isbell 1978). Other researchers have already challenged the descriptions of generalized 'Andean' understandings of nature by documenting the conflicting interests and divergent interpretations of environmental processes within Andean communities (see Gelles 2000; Zimmerer 1993). Instead, I follow scholars of the Andes who analyze how symbols of indigeneity and 'culture' get deployed and redefined, both by advocates (Weismantel 2006), and by indigenous people themselves, often in struggles over access to resources (Kent 2008; Perrault 2008).

Perreault (2008), for example, analyzes how rural water conflicts in Bolivia have produced an irrigators' movement among campesinos that promotes water management based on customary practices (*usos y costumbres*), with a claim to cultural rights. Perreault notes that the version of customary use that the Andean irrigators claim is essentialized, emphasizing cultural difference and referencing international indigenous rights documents ratified under Bolivian Law. In this way, irrigators self-consciously represent their belief system in such a way that their practices are linked to state and internationally recognized indigenous identity and citizenship rights. Whether the customary rights that irrigators claim are 'authentically traditional' is irrelevant for Perreault's argument. Instead, he emphasizes that customary practices are framed to do cultural and political work providing a legal basis for water rights and symbolizing cultural distinctiveness.

Kent (2008) describes how a resource conflict between Uros, and indigenous group, and lakeshore users at Lake Titicaca evolved as increasingly static forms of state-sanctioned territorialization came to be established over a relatively flexible system. While on the surface, the Uros claims seemed to exemplify the defense of traditional indigenous territories against state encroachment, Kent argues that what were being claimed as 'customary' territories were the result of recent attempts to solidify and extend Uros areas through state-sanctioned recognition processes. Uros and lakeshore people had a history of approaching their territories with flexibility and mobility, depending on markers that changed over time due to organic growth and water levels. However, "Ancestral Use Zones" created a new modality of space that fixed boundaries and considerably changed the nature of territories. The establishment of customary territories was, in this case, a process through which bounded and exclusive territories became acceptable and desirable in the minds of citizens, including Uros communities. This change

marked an alteration: of people's perception of the environment as territory, of what they considered acceptable resource use, and of their relationships to each other as users. Yet the label—Ancestral Use Zones—implies a straightforward validation of cultural continuity.

What both studies show are cases where struggles over resource rights and access involved the deployment and redefinition of concepts and practices in new terms as indigenous, culturally different, ancestral, or traditional. These processes influenced indigenous Andean people's remaking of their own identities in ways suited to political opportunities. While both might exemplify identity politics, they also show that understandings of what is 'cultural' changes over time for indigenous people as well as for their interlocutors. This point is pertinent in my research because of what is thus implied about evolving subjectivities among indigenous peoples, and judgments about their subjectivities among those who see them as indigenous. In my case, I theorize Urpi's trainees and untrained Vicosinos as active participants in these transformations. The practices and concepts I talk about, rituals and pachamama, for example, are deployed by Urpi and by trainees in new ways. Thus, Urpichallay's discourse of Andean culture is an important starting point because of how its symbols are deployed and interpreted as trainees and others wield them.

Urpi's Andean Cosmovision

> To every culture corresponds a worldview. Every culture has different capacities for perceiving and feeling, and lives the world in a distinctive way. What makes a pueblo particular and unique is their mode of relating people, nature, and god. The ecological plurality corresponds to a culture… for the vision of the Andean man, the landscape is alive and integrates all the living beings from man to rocks, where everyone cares for each other in harmony and mutual respect exists among all that forms us.

[Training module text for environmental promoter course. Topic: Paisaje y Ambiente, Autor: Hugo] [51]

This quote, taken from a document used to train promoters, captures the essence of Urpi's characterization of cultures, and the way Andean culture is different. Cultures, the quote begins, have different worldviews, and these are distinctive and unique. For people in the Andes, what is unique and distinctive about their culture is their view of the relationship among people, nature, and god—specifically that these are not separate. Rather, the landscape is understood as a web of interdependence in which people and other beings interrelate. The interrelationship of humans and nature (in the Cartesian sense of categories) is described as harmonious and "mutually respectful." The idea of Andean people living in harmony with nature is thus based on their culture.

As described earlier, Urpichallay's mission is the affirmation of Andean culture and this forms the crosscutting goal even though project foci are varied. Urpi staff describe Andean culture with reference to a set of characteristics and beliefs that conform to the logic of a coherent worldview they call the Andean Cosmovision. The Cosmovision is based on the premise of a pan-Andean indigenous culture in South America that persists because ancestral practices and knowledge have been handed down over generations. This idea of a broad cultural group connects rural Andean people alive today to the time of the Incas and before. Urpichallay describes the Cosmovision as an overarching framework of knowledge and practice general to the Andes, but with local variations. Within this framework, knowledge is always tied to a

[51] "*A cada cultura, corresponde una forma del mundo. Cada cultura tiene diferentes capacidades de percibir y sentir, y vive el mundo de manera distinta. Lo que hace particular y unico a un pueblo es el modo como se relacionan humanos, naturaleza y deidades. La pluralidad ecologica se corresponda con una cultura. ...Para al vision del hombre andino, el paisaje es vivo y lo integran todos los seres vivos desde el hombre hasta las piedras, donde todos nos criamos en armonia y existe respeto mutuo entre todos los que la formamos"*

particular place while exemplifying a broader philosophy that relates to agriculture as a way of life. Urpichallay's personnel explained that Andean people in a given valley possess valuable knowledge that is particular to that valley because they are native to the ecosystem. Thus, variations in ritual, agricultural technique, and idiomatic concepts across the Andes are explained as evidence of a broadly shared Cosmovision, not a contradiction to it.

Because they understand the Cosmovision to be a pan-Andean phenomenon, Urpi staff sometimes draws on concepts and practices from other parts of the Andes. Some of this information is gained through their connection to PRATEC, as the organization provides literature and training on the Cosmovision and encourages development NGOs to adopt a Cosmovision-centric approach (Apffel-Marglin 2002). Thus, not all the terms Urpi uses come from the Huaylas Valley or Ancash. Urpi's own name is an example of this—Urpichallay means 'my little dove' in the dialect of Quechua spoken in Cusco. This mixing of dialects and concepts and practices from different localities was common in Urpi's media. In one powerpoint presentation, used to give promoters an overview of the Andean Culture, a variety of terms in Quechua were used: Mama Sara, Apus, Pachamama, and Paztamama[sic]. The first three of these are Southern Quechua terms (mother corn, mountains/gods, earth mother), and last one in the local Quechua term and pronunciation.

Urpi elaborates the Cosmovision in the books and pamphlets they publish, in public presentations to other institutions, to funding partners in oral and written formats, and during training provided to promoters and other project recipients. Urpi also describes a Western Culture (*Cultural Occidental,* also sometimes referred to as Modern Culture, or Western Worldview), that they understand as contrasting with the Andean Cosmovision. Below, I

highlight the characteristics frequently discussed when Urpi's staff and leaders describe the Cosmovision, and its contrast to Western Culture:

1) The entire world is alive: unlike Western science, which distinguishes between things that are alive and other things that are dead matter (eg, rocks, water, etc), in the Andean view, everything has 'life'. Water, mountains, the rocks, and soil itself: these are living entities that deserve respect and that have agency. This is exemplified in the quote from the promoter training modules above, where "man" and "rocks" are both described as living beings. Staff contrast this view of nature (or more specifically, nature's elements) as *seres vivos* (living beings) with the Western conception of *recursos*[52] (resources): dead matter that can be exploited and manipulated.

2) The spirituality of nature: in addition to being living beings, elements of nature are spiritual beings. These include the mountains being *apus*, the moon being *mama killa* (mother moon) the sun being *tayta inti* (father sun). Various aspects of the landscape are thus personified with a gender and persona and considered deities, such as *yakumama* (water mother). Urpichallay places particular importance on *pachamama* (earth mother) in emphasizing rituals and offerings that show respect to the earth.

3) Egalitarian relationships: in Western Culture, God dominates humans and humans dominate nature, thus relationships are hierarchical. In contrast, Andean people do not dominate nature, but engage in co-nurturing relationships with the other beings of the planet. In the above quote, this idea of egalitarian harmony is expressed as follows: "everyone cares for each other in harmony and mutual respect exists among all that forms us." Urpi emphasizes the idea of respect

[52] This analysis of the concept of resources bears striking similarity to Vandana Shiva's work, see for example her essay "Resources" in The Development Dictionary (1992). Shiva's writing was cited elsewhere in Urpi's materials, further indicating that international scholars writing critically about development and indigenous people have influenced the NGO's analysis.

in these interrelationships. Urpi also uses the Spanish verb *criar* and *criarse* (to rear or nurture) to capture this mutual dependence. This reflects a philosophical emphasis from PRATEC, *criar y dejarse criar* (to nurture and let oneself be nurtured) (Apffel-Marglin 2002). The practice of co-nurturance permeates agricultural practices and daily life.

4) Andean people interact with nature by "conversing" (*conversar*) with the natural world through ritual, dreams, and environmental signs, such as bioindicators. One staff member shared the example of a campesino farmer who dreams of a woman in the field and thus knows it is time to plant. Conversing produces knowledge about nature that is practical and locally specific. In contrast, knowledge in Western Culture is treated as universal and abstract.

These are the basic ideas that Urpichallay characterizes as the Andean Cosmovision and contrasts with Western Culture. As is evident in the examples above, Western and Andean worldviews are contrasted. Urpi's literature at times suggests that the two are incompatible:

> It's not possible to speak, understand, or practice Andean agriculture with modern western concepts, because in its seminal conception both are completely separate and generally opposed, for this reason the application of western agricultural technology in these lands has usually failed. [From promoter training material document titled "La Agricultura Andina"].[53]

The difference constructed between Western and Andean cultures explained here suggests a conflict between two cultural worldviews. Western thought and technology are "completely separate" from Andean technology and thought. They are also "generally opposed" from their conceptual root. This suggests deep, perhaps insurmountable cultural differences between Western or "modern" approaches (a conflation between the two is evident here) and Andean ones, the latter of which are profoundly un-modern. Further, there is a causal effect described

[53] "*No es posible hablar, comprender y practicar la agricultura andina con los conceptos del occidente moderno, porque en su concepción seminal ambos están totalmente separados y generalmente opuestos, razón por la cual la aplicación del concepto tecnológico occidental de agricultura, en estas tierras, usualmente ha fracasado."*

that results from this cultural conflict—the failure of development. Development fails because it is based on Western culture and modern assumptions about the world. This is how Urpi's construction of the Andean Cosmovision leads to a radical critique of development—radical because development is argued to have failed, not due to incompetence, inefficiency, larger socioeconomic conditions etc., but because at its root, it is flawed, misguided, and inappropriate for the Andes because of cultural differences.

Aside from the unlikely coincidence that two different 'cultures' just happened to be the complete opposites of each other, this dichotomization of Andean and Western Culture is further perplexing given Urpi's use of Western environmental science techniques during training. As the previous chapter illustrates, Urpi's training emphasizes science as important and tries to make it accessible. The NGO's policy is not to oppose scientific knowledge but introduce it alongside ancestral technology, pointing out the way these techniques relate to different worldviews. The contrast between Western and Andean Cosmovisions is heavily emphasized within the NGO.

In interviews, Urpi staff were consistent with the discourse in the written materials by the NGO; lower level staff were also consistently in agreement with upper level staff (project leaders) in their individual articulations of the Andean Cosmovision. They all saw Andean culture and Western culture as two different things and, further, saw Andean culture as a source of conservationist practices and ideologies. For example, many remarked on the way Andean people had lived in harmony with nature and without overexploiting resources for millennia.

When I first met Rigo in 2008, he had been working for Urpi on a part time basis for about a year. He led a promoter training workshop for a committee that was forming in the rural outskirts of Aija in the Cordierra Negra. The promoters had already undergone training in a variety of topics, including basic environmental concepts, water monitoring techniques, conflict

resolution, and community organizing. This last workshop focused on microbusinesses, which was Rigo's speciality. He was trained as an economist, specialized in working on business development in rural areas; he also spoke Quechua. Shortly afterwards, I interviewed him about his work with Urpi. Although he had worked for other institutions, he preferred Urpichallay because he liked their approach, he said. Other institutions just did development, 'without respect for the culture.' He further remarked during the interview:

> The Andean philosophy of life is one of the best in the world, I believe. I don't know the other cultures well, but it would be interesting to make a comparison between different cultures: China, Russian, etc. and ask: what is life for them? Which is the healthiest? Which one is most protective of the environment? It might be that Andean Culture is the most protective. [Notes from interview with Rigo, 2008][54]

His comments reveal an understanding of 'cultures' as existing in a particular way: as cohesive and whole, having their own internal logic. Thus, cultures can be 'conservationist' or not. While Rigo's statements were unique among staff in some ways (his comparisons with other cultures such as Russia, China, for example), they did reflect a broader pattern of seeing cultures as bounded, belonging to a people, and having a conservationist ethic or not. In a similar way, other Urpi staff tended to view Andean culture positively and Western culture negatively, with the former being conservationist with the latter being exploitative.

This was apparent in individual interviews I conducted with staff, but even more striking in an activity I conducted during an employee meeting (see Figure 3 and Table 1). I asked Urpi staff to use index cards to write down different environmental practices in campesino communities, using red for those they judged to be environmentally harmful or polluting, and green for those

[54] *'La filosofía de vida del andino es uno de los mejores del mundo, creo. No conozco bien las otras culturas, pero sería interesante a hacer una comparación entre diferentes culturas. Cultura China, Ruso, etc. Y pregunta: ¿que es vida para ellos, que es la más sana? Which one is most protective of the medio ambiente? It might be that Andean Culture is the most protective.'* (from original fieldnotes)

they judged to be environmentally protective or beneficial. Then, I asked them to place the cards on a large chart I had drawn to show two overlapping circles: one representing the Andean Cosmovision, and the other, the Western Worldview. When they finished, the Western side of the chart contained almost exclusively red cards, while the Andean side almost exclusively green (95% red, and 85% green, respectively, with the overlapping center contained almost exactly 50/50 of each). As we discussed the activity afterwards and looked at the results together, the staff as a group confirmed that they felt that the Andean Cosmovision was more environmentalist than the Western Worldview.

The Andean-Western dichotomy shapes how staff make sense of a variety of patterns they see in rural highland communities. As was clear in the sorting activity, some things people do in campesino communities are seen by Urpi staff as belonging to the Cosmovision, and other things seen as inherently Western, while yet other activities are evidence of hybridization. As staff use this model to understand and interpret practices in the campesino communities with whom they work. As Hugo once clarified during a workshop, 'there is a difference between culture and bad habits.' Urpi staff reference the Cosmovision and Westernization to explain behaviors and practices in places like Vicos, where people do not perfectly exemplify the Andean Cosmovision all the time, but rather represent what Urpi staff see as a mix. Behaviors and beliefs that are inconsistent with the Andean Cosmovision are usually explained as due to 'Western influence' and sometimes more specifically attributed to the influence of contact with urban and coastal areas in Peru which they understand to be culturally different.

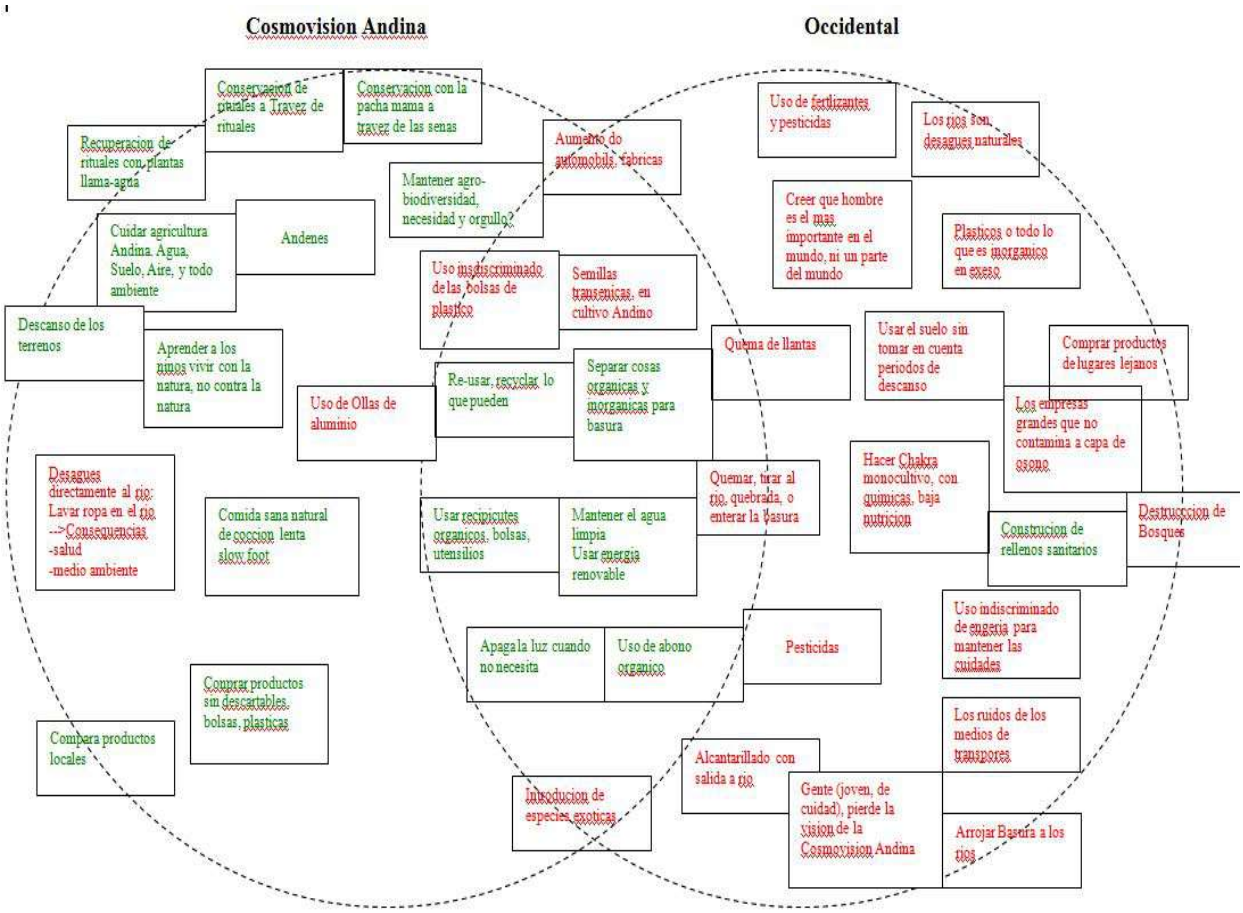

Figure 3: Results of Sorting Activity with Urpichallay Staff
(See Table 1 for English Translation)

In 2010, I attended a promoter training workshop at Urpi's headquarters where the topic of the day was gender. The promoters in attendance included four students of environmental engineering studying at the nearby university (a young man from the city of Huaraz and three young women from a Tumpa, a village in a Quechua-speaking area), as well as a promoter from Huallanca who worked with an environmental committee there, a campesino man from the community of Atoqpampa, and a high school student from a Quechua-speaking area near Carhuaz. Also in attendance were two other staff members, Alex (an education specialist) and Nestor (a technician). The workshop was led by Camila, who was the NGO's gender specialist.

We sat in a semi-circle of chairs while Camila described how gender in the Andes was fundamentally different from the Western concept of gender.

Scholars have described gender relations in the Andes as based in complementarity (Babb 1985; Isbell 1978; Silverblatt 1987), and Camila emphasized a similar pattern in how men and women relate and work together. They form two incomplete halves, she explained, that join to make the couple one whole social unit. Their division of roles in the community reflects their different abilities and correspond to different kinds of labor. Men plow, while women sow the seed as a symbol of their fertility. A man alone, or a woman alone, is incomplete. This, she explained, contrasts with Western thinking, which emphasizes individualism and self-sufficiency. In the Andes, marriage is required for social personhood. She asked the group:

> For example, do you know of a divorced campesino? They don't exist. Infidelity, yes, but they don't formally divorce.

One of the young women promoters, Cassandra, who was herself from a rural Quechua-speaking area responded. Using her own experience, she politely contested Camila's characterization. She proceeded to describing a campesino woman she knew who divorced her husband after going to live on the coast. Camila responded:

> But when they go to the coast, then they have been influenced by the West. When this idea influences them, then they divorce. You have to be careful (in interpreting who represents the Cosmovision).
> [Notes taken during a training workshop, 2010][55]

Camila asserted that divorce does not exist for Andeans even though she acknowledged the flexibility with which campesinos were living. In this way, she's teaching the promoters that some people represent purer versions of the Cosmovision than others who have been influenced

[55] '*Por ejemplo, saben algún campesino divorciado? No existe. La infidelidad si, pero no divorcian formalmente…. Pero cuando vayan a la costa, ya tiene influencia occidental. Cuando influence ese idea, ya divorcian. Hay que tener cuidado.'*

by social realities outside of their community. Cassandra is herself potentially an example of this, although this was not made explicit during the workshop conversation. She had become an engineering student at the nearby university after having been raised in an urbanizing farming village and graduating from the local high school. She and her friends—others in the promoter course who came from the same community—conversed in Spanish and spoke about Andean culture in the third person, insinuating that this was a worldview with which they did not personally identify. In a later meeting, Cassandra described her own socialization as one that combined "the two cosmovisions," because her parents took her to work in the charcra while also ensuring that she dedicated to her studies, telling her, '*debes conocer siempre de donde has salido*' (you should always know where you came from).

The Cosmovision as an idealized model that Urpi staff understood in opposition to, and as threatened by, Western culture (also an idealized model). While this suggests that the two cultures can be hybridized, defining each in opposition to the other implies they frequently come into conflict. This dichotomized model also suggests that Andean culture can be eroded and degraded, and some people represent the more degraded version. The campesino woman who got divorced can no longer be referenced an example of Andean culture once she has lived on the coast, because she has been too influenced by Westernization and has taken on behaviors that do not fit the rationality of her native culture (divorce). Or, in other words, at least some aspects of her behavior can be explained away as non-Andean if they do not fit the model.

Gender and the Cosmovision

The example above shows a woman's behavior being evaluated as no longer being Andean, but the idealization of Andean purity is not limited to interpretations of women. Any

individual, male or female, could become Westernized. It is important to note, however, that gender differences are also part of the Andean Cosmovision Urpi describes, and different roles are naturalized for men and women. Thus, new development opportunities such as those offered by Urpi affect opportunities for men and women in different ways. However, the gendered impacts of development projects in Vicos have been under-examined in recent scholarship on Vicos, with a few notable exceptions (see Babb 2011, and Babb forthcoming).

Urpi's approach to gender relations places indigenous concepts at center. During the workshop, Camila pointed out that while Western culture uses 'gender' to understand relations between human men and women, in the Andean Cosmovision complementarity (male-female duality and interdependence) extends to all '*seres vivos*' which includes mountains, lakes, the sun, and moon. These beings are also each male or female, and their gender is an important aspect that influences how people interact with them. For example, Andeans interact with the earth as a mother who takes care of them by providing sustenance and they in turn take care of her. What Westerners think of as "gender" is thus profoundly integrated into Andean social and spiritual life, as well as agricultural practices, and extends to the non-human world as well.

Being Andean therefore implies different expectations for men and women. Camila's lessons about gender emphasized women's role in procreation and cultivation through the concept of earth mother. Women oversee seeds, she explained, both selecting and planting them. Men's relations with nature are also gendered. Men interact with pachamama as a woman, as in the example mentioned above of the farmer dreaming of a woman in his field as a sign that it is time to plant. The distinctions between men and women's roles through Andean complementarity informed Urpi's approach to gender equality, which their financial supporters like CLWR required that they integrate. For example, the project Agua Viva included collecting

and disseminating information about men and women's complementary knowledge about protecting water resources in campesino villages, as well training promoters in the concept of complementarity.

Cultural affirmation has entailed promoting an image of native Andean culture as more egalitarian (among human communities, as well in relation to nature). Gender relations exemplify this egalitarian tendency, because women and men are understood to have separate, but equally important roles, each with their own corresponding realm of expertise and authority. Other scholars have argued that this can lead culture advocates to overlook and even perpetuate inequalities present in native communities. Throughout Latin America, some traditional gender arrangements end up limiting women's rights in the name of cultural preservation (Deere and Leon 2001). Complementarity specifically, a scholarly understandings of gender relations in the pre-hispanic and contemporary Andes (see Harris 1978; Silverblatt 1987), has been shown to lead to biased opportunities for women's participation in contemporary development projects (Barrig 2006; Delgado 2005). Understandings of indigenous women employed by development workers in an attempt to be culturally sensitive are sometimes nothing more than stereotypes (Radcliffe et al. 2003). Urpi's lessons about gender could produce a similar blind spot for staff and trainees when they interpret the choices and circumstances of men and women in the campesinos communities where they work or live respectively. For example, Urpi staff sometimes interpret gendered participation in projects (eg, far more men than women attending a workshop, or vice versa), as expressions of complementarity.[56]

[56] For example, in rural schools, the majority of students who volunteers to be in 'environmental clubs' were women (95%, according to Camila). She said this is because the 'environment' is a topic that 'calls their attention' due their special relationship with pachamama. A teacher at the school, however, though it was because some of the activities were similar to the domestic duties performed by women (cleaning, sorting trash/recycling).

In the examples described above, Urpi's approach to Andean culture presents a model for sustainable resource use and harmonious living with nature and the representations of what constitutes Andean culture and the Cosmovision are expressed consistently and clearly. In practice, however, there are some contradictions around affirming Andean culture. First, Urpi staff look to people living in the Andes as already possessing this Cosmovision, but also as threatened by Westernization. Thus, like NGOs elsewhere, they face a "double bind" where intervention is premised on a supposed need, but that this need must be perpetual or else the NGO's raison d'être is null (Timmerer 2010). In the case of Urpi, the double bind comes from the premise that campesino communities need NGO projects in order to be improved, while another premise asserts that the communities themselves are the source for an already-harmonious way of living with nature. As a result of this tension, Urpi represents the communities with which it works with in somewhat contradictory ways. On the one hand, campesino villages are seen as vestiges of the Andean Cosmovision and program leaders publish books and articles and make public presentations that are filled with examples (quotes, stories, etc) that illustrate the Andean Cosmovision in these places. But Urpi's work is also based on the premise that the Andean Cosmovision needs affirmation—that it is weakened and threatened by Western influence, perhaps even degraded. Thus, Urpi also sometimes presents the communities it works with as in the process of losing, or having lost, their culture. This dilemma is similar to one described by Li (2007), in a case where activists argued that community capacities were naturally present as indigenous systems of resource management, but that they had been damaged or need to be revised to meet modern conditions: restored, optimized, or adjusted. For Urpi, much of the threat to the Cosmovision comes from Westernization, but the need to improve the communities involves not only affirming their ancestral culture but sometimes introduces

other parts of what the NGO sees as Western technology: water testing, new (non-ancestral) organic farming technologies, recycling. The combination of training in Andean culture and in 'Western' technologies that Urpi offers to promoters reflects this effort, but it does result in some contradictory messages.

Teaching Culture

Urpi's methods for affirming the Andean Cosmovision entails identifying aspects of the Andean Cosmovision that are already present among the communities with whom they work, collecting information about these, and then re-circulating this information. During projects, staff (often the technicians) gather information relevant to the Cosmovision from the participants and then disseminate it through Urpi's various media outlets: radio programs, print books and pamphlets, and within presentations by Urpi staff in a variety of settings. Urpi's data in support of the Cosmovision is dense; one small booklet called "*Sabidurias altoandinas para el cuidado del paisaje, Ancash*" contains over 50 quotes from campesinos (mostly elderly individuals from Vicos) describing pachamama, traditional agricultural methods, and the world being alive. Radio programs created by the NGO target illiterate and remote people with this information in Quechua. Urpi re-circulates the information they collect with a broader audience, often having first recontextualized it within Urpi's narrative of the Andean Cosmovision.

While Urpi's leaders may understand what they are doing as revitalizing an existing culture, their interlocutors find themselves learning about Andean culture *from* Urpichallay. I frequently saw staff teach the Cosmovision. Urpi staff—usually leaders—describe the Andean Cosmovision in detail to others, as Camila does during the promoter encounter described at the beginning of this chapter and in the workshop example discussed above. In the first example,

Camila spoke at length describing beliefs and practices of Vicos as reflections of the Cosmovision, while Vicosinos presentation formed an audience to this analysis of their 'culture'. Campesino participants in Urpi's projects often find themselves listening to similar explanations during workshops and events, such as in the example where promoters learn that divorce does not exist in the Andes. In that case, the audience consisted of campesino community members and university students. The young woman who brought up the example of the woman who divorced after moving to the coast was herself a university student who grew up in a campesino community.

Teaching occurs in a variety of formats: training workshops, public presentations at conferences and events, and in less formal conversational settings. Urpi's audience is large, including not just their trainees (some of whom are campesinos, some not) but many others (NGOs, state workers, mine operators, their funders, the public more broadly). I observed Hugo describing the importance of the Andean Cosmovision in meetings where various representatives of the Peruvian state, other NGOs, and even mine operators came together to discuss environmental issues. In this context, teaching the Cosmovision functions to inform members of other institutions that when they work with campesino populations, they are working with people who see nature and resources in a different way than they do, and to encourage them to recognizing the benefits of this alternative view. These contexts included public policy shaping events, large workshops for NGOs and public officials, and meetings among stakeholders in environmental programs in the area. Urpi's representatives were often the sole voice speaking explicitly for Andean indigenous views in these contexts.

Leaders see these acts as advocacy. They aim to make space for what they see as a counter-hegemonic and positive view of human-nature relationships to inform the public

discourse. At one such event Hugo commented, 'In all honesty, I personally hold the Western view, but after 15 years of working with campesinos, I have learned that they have much to teach.[57]'

These acts also position Urpi leaders as experts on Andean culture who can explain, interpret, and adjudicate who or what is part of that culture and who or what is not. As a result, they speak about Andean culture in ways that campesinos themselves typically do not.[58] Urpi personnel explained to me that the terms they used to explain life in the indigenous Andes—terms like culture, Cosmovision, complementarity—do not come from the campesinos with whom they work. Rather, they use terms like "Cosmovision" in order to better explain the logic of life in the Andes to those who are not familiar with it. In the words of staff member, the Cosmovision is something that campesinos *live*. It is practiced, but generally not abstracted or analyzed by campesinos themselves. This further confirms Urpi's authoritative role teaching and interpreting Andean culture to others, as campesinos are not really in a position to do so themselves (the exception being Urpi staff who were originally from campesino communities but whose professional careers led them to analyze culture in this way).

Urpi staff also perform acts that express the lived aspects of the Cosmovision. I observed Urpichallay's campesino technicians perform what Urpichallay calls a ritual offering and what others in Peru often call *pago a la tierra* (payment to the earth, sometimes just called *pago*, or payment). Urpichallay initiates these rituals on several occasions, including during workshops, at encounters among promoters they had helped organize, and before water testing with promoters

[57] Taken from fieldnotes during the 2008 workshop "Camino de Agua" held at Urpichallay and coordinated by Urpichallay and TMI

[58] Although there are exceptions. Some Urpi staff are campesinos, and learn to speak about their own culture in this way. There are also participants in Urpi's projects who learn this discourse, and tourism families speak this way.

in their localities. Below, I describe one such ritual at an event called 'El camino de agua', organized by Urpichallay and a few other organizations, where promoters from various localities met in Huallanca. Vicente and Nestor (another one of Urpi's techicians) placed a blanket on the ground next to a lake, and assembled an offering that included alcohol, coca leaves, bread, and flowers:

> Nestor [Urpi's technician] sits in front of the offerings, making benedictions in Quechua. The rest of us [promoters, other staff, other participants] stand around in a circle, watching. He gives thanks out loud, and asks for protection for the lake, mountains, *cerros* (hills), *nevados* (glaciers), etc. He begins to pass around pisco and coca. While we each take some in turn, a small drink and a few leaves, he scatters more coca leaves and the carnation petals into the lake. At the edge, he arranges a bunch of flowers sticking up into the air, and a pile of coca leaves. Bits of the bread are passed around the circle, and we each take a chunk to eat. He also throws some pisco into the lake, and buries some bread under a rock in the water. Then it is done. *Una buena hora,* he says. *Abrazos por todos.* There are quite a few of us, so it takes us a while to get around to hug everyone. Then, participants take a few group photos…. I speak again with Alan [a Huallanca promoter], asking him if indeed Nestor had put bread underwater in the rocks. He says, yes, then begins to tell me of the significance of the pago: to ask permission, to ask for protection, to be among the mountains… I've seen it before, I say, but never with carnations. Yes, he says, it's different in each place [from fieldnotes, 2007].

Urpichallay is not the only institution that conducts rituals. I saw others performed in a similar way at a few institutions around Ancash. While each ritual was different, there were basic similarities: one person would conduct the ritual, laying out different items to be used in the offering on a large textile, drinking alcohol and chewing coca, speaking in Quechua directly to the features of the landscape (typically mountains and bodies of water) and sometimes to other dieties (e.g., *dios, nuestra padre*). Those gathered, usually in a circle, also take coca (sometimes as a *k'intu*, a set of 3 or 4 unbroken leaves held in the fingers) and chewed it, and drank a small amount of alcohol in turn. Once the offering was complete, some part or all of it was burned or buried. In the example above it was buried at the edge of a lake. Urpichallay staff performing rituals at gatherings illustrates yet another way of teaching culture. In addition to explanations given publicly, a ritual is a 'lived' aspect of the Cosmovision practiced by the NGO.

The technician who performed the ritual described above was Nestor. He was part of the Agua Viva team in 2010, although he started working for Urpi in 2006 on biodiversity projects. Nestor and Vicente were the two technicians that worked most directly with promoters and RRCAA during my fieldwork and Nestor had a particularly prominent role that included accompanying promoters during participatory water monitory activities, helping RRCAA members process paperwork related to their organization in Huaraz, and performing rituals. Nestor's first language was Quechua, and he especially enjoyed visiting communities to coordinate the NGO's activities with project participants. He mentioned to me several times how he always took his time on these visits, conversing, sharing ideas, communicating, collecting saberes. Not everyone is friendly like this when they do work in communities, he said. When I baptized my second godchild, Nestor was pleased that I was participating in community social life and invited me and my compadres to his home in Marcará afterwards to have a "brindis" (toast), with him, his wife, and his young child.

Nestor's knowledge of the Cosmovision is personal as well as institutional. So is Vicente's. For example, Vicente is able to make claims about the culture in Vicos, being himself a Vicosino comunero.[59] Further, in analyzing what campesinos do and explaining to others the meanings of these actions, Urpi staff arbitrate who and what does and does not represent Andean culture. They interpret behavior (as with the divorced campesina woman) and knowledge (when collecting saberes) and adjudicate whether or not these reflect the cosmovison or evidence of Westernization. Sometimes they explain a community's practices to individuals from that very community. In order to explain to others the significance of the Cosmovision, Urpi talks about culture and contrasts Andean and Western worldviews.

[59] An example of this can be found in Isbell 2011, page 301: A Vicosino Urpi staff member explains, during a symposium, gender dynamics of household economies in Vicos.

This pan-Andean view of culture entails some essentializations. Essentialism is "freezing and reifying an identity in a way that hides the historical processes and politics within which it develops" (Jackson and Warren 2005, 559). The use of essentialism is a strategy of cultural political movements, but it can perpetuate inaccurate stereotypes and romanticize native people, resulting in "indigenous slot" that populations must mold themselves into order to be recognized by activist communities or state actors as having an authentic basis for claiming rights (Dove 2006; Li 2001). For example, Conklin and Graham (1995) describe how alliances between environmentalist groups and indigenous people in South America have helped the latter gain popular support but only to the extent that native worldviews matched Western conservationist ideals. Native leaders risked falling rapidly from popularity if they contradicted Western romanticized views. Further, when native people sought control over ancestral resources in order to make a profit, they lost favor with environmentalists. The ways that indigenous people were understood and represented by environmentalists thus could not accommodate their diverse aspirations lives. There is a risk in assuming that indigenous groups have uniform interests, or that NGOs are spokespeople or advocates who represent these interests well.

Yet essentialism is politically, and sometimes economically, useful. Weismantel (2006) argues that essentialism is used by Andean activists as strategic visions of the future. For example, while anthropologists abandoned the concept of the ayllu (Andean community/family) as a romantic notion of the Andean past, Andean activists have proclaimed its importance as a vision of antimodernity. The ayllu described by activists, with its system of reciprocal labor exchange, is a tool for opposing capitalism and resisting unwanted changes brought by political and economic restructuring. If modernity is an ideological instrument, she argues, then "the possibility of living outside modernity is not utopian wishful thinking but rather a matter of

constructing a new template with which to view social life" (93). By distinguishing the descriptive limits of essentialism from its role provoking activism, Weismantel explains and justifies activist reasons for selectively emphasizing some traits from past ethnography over others. Essentialism can thus aid in cultivating alternative modernities.

The indigneous ideology offered by Urpichallay has potential to speak back to the racist and assimilationist context and history of Peru. While Urpi's narrative points to practical reasons for choosing the Andean Cosmovision (it gets people on board with their projects), this Cosmovision also strengthens their critique of development. However, there is danger in interpreting indigeneity as a "natural" source of anti-modernity. Escobar (1995) exemplifies this tendency in his famous critique of development. He locates resistance to development among Latin American peasants not as a self-conscious form of indigenous identity politics but "from the sheer fact of cultural difference" (168; see Antrosio 2002). This is not only orientalism, it is an oversimplification of indigenous realities. A cultural binary (west/nonwestern) misses a great deal of nuance in the ways that various indigenous groups and peasants engage with development projects (Gow 2008). Further, the fact that cultural identity has become complexly incorporated into development projects in the Andes since the 90s makes the simple dichotomy between indigeneity and modernity virtually meaningless (Radcliffe and Laurie 2006).

When Andeans respond to development projects, they have integrated new technologies and discourses of development into their understandings of selfhood and articulations of identity (Antrosio 2002; Gow 2008). For example, Bebbington (1993) describes how Indian federations adopted new technologies because these allowed groups to maintain a material base and thus sustain traditions that they valued more than ancestral agricultural techniques (eg, dress, language, kinship networks). In another example, Shepherd (2004) describes a case where

campesinos departed from what they were taught by NGO workers regarding new technologies. While NGO workers interpreted this as resistance, Shepherd argues that campesinos were not intentionally "resisting" but responding to other obligations and interests and applying new practices as they saw fit. These researchers show that while campesinos sometimes do, and sometimes do not, adopt ideas and practices through development interventions, their decisions are based on a variety of factors, not merely as efforts to embrace or resist modernity (Bebbington 1993; Shepherd 2004). People do not always flee from or resist hegemonic discourses; they engage with them and reproduce them as well as rework them (Canessa 2005). When people respond creatively to strategies that seek to shape their agency, the subjectivities that emerge are varied.

As a result, people in the Andes combine and relate the symbols and discourses of "modernity" and "indigeneity" in much more entangled ways (e.g., Antrosio 2002; Bebbington 1993; Canessa 2005; Van Vleet 2005; Shepherd 2004). Likewise, actors in my research both reflect and rework Urpi's discourses. The opposition between Andean indigeneity and Western or Modern culture is thus a popular framing for cultural diversity in Peru, but it oversimplifies how people understand and explain their differences. In the second half of this chapter, I consider how campesinos in the community of Vicos, where Urpi has trained many, and express concepts they learned from Urpi, and practice what they (or in some cases do not) see as their culture.

"Andean Culture" in Vicos

How do Urpi's efforts play out among those with whom they work? Urpichallay has a long history working with Andean culture in Vicos, having conducted numerous projects with Vicosinos since Agua Para Siempre. One would expect Vicos, especially, to exemplify a revitalized Andean culture. There are beliefs and practices in Vicos that reflect the Andean Cosmovision and Urpi circulates information about these. There are also specific individuals who have embraced the idea of having an Andean culture, and have built relationships with Urpi over time. However, Urpi's depictions of Vicos belie the actual diversity of beliefs and practices there, and this creates a complicated and sometimes contradictory image of this community. In what follows, I focus on Vicos as an example of a campesino community targeted with a particular kind of conciencia (indigenous andean) and examine how Vicosinos view this environmental discourse, and as well as how other actors view it. These discontinuities help illuminate how Vicos's conciencia, or lack thereof, is interpreted as a cultural phenomenon. Vicosinos have a stake in the effects of Urpi's teaching about a culture that supposedly belongs to them, even if not all of them realize it.

Urpi does not expect campesinos to describe themselves in the abstract terms that Urpi uses because the Cosmovision is something they "live." However, I spoke to trainees who had become familiar with abstract terms because Urpichallay uses them. Trainees such as promoters learn about "Andean culture" from Urpi, and these individuals sometimes do learn to use the terms Urpi uses such as "cultura andina" and "Cosmovision". Trainees from Vicos who worked steadily with Urpichallay spoke about Andean culture or "nuestra cultura" and described their culture in ways similar to Urpichallay, while most other Vicosinos did not. This shift could certainly be seen as a form of cultural affirmation—trainees are now able to describe their

'culture' and explain why it is valuable, similar to what Urpi does. It also indicates that people are re-positioning themselves with respect to new discourses, specifically the discourse of indigenous conciencia, and reinterpreting their traditions as symbols of a non-western culture. People were thus becoming more self-conscious in their understanding of their practices and identities as exemplifying people who "have a culture."

Like Urpichallay staff, promoters from other communities were interpreting some places as vestiges of Andean culture more so than others. One such location was Vicos. One promoter from a different campesino community, Alfonso, explained during our interview that Vicos was practicing Andean culture because Urpi encouraged it there, but he did not recognize his own campesino community as an example of Andean culture. Instead, he was learning that Vicos, in particular, was a community that represented Andean culture. In the exchange between Vicos and Huallanca that opened this chapter, Urpi staff depicted Vicos as an exemplar of the Andean Cosmovision and the other promoters looked towards Vicos with admiration for its 'strong traditions' and 'less influence of Westernization', which results in 'love for the land'. This discussion implied that strong traditions and effective resource management go hand-in-hand, but these are in fact different things. I describe some of the complexities of Vicos resource management over the years in a later chapter, but here I focus on how Urpichallay's understanding of culture is engaged in Vicos.

In what follows I trace a few concepts key to Urpi's Andean Cosmovision as they are understood and applied in Vicos, using examples from trained individuals such as promoters as well as untrained community members. The concepts of 'earth mother' and ritual offerings are central to Urpichallay's discourse because of their importance in co-nurturing between humans and nature—people take care of mother earth via ecological practices and ritual offerings, and

she cares for people by providing sustenance. Urpichallay links pachamama to a particular kind of conciencia that is indigenous Andean. Pachamama is especially important for the indigenous Andean co-nurturing relationship with nature Urpi wishes to cultivate, and the ritual offering is an expression of this conciencia. As one Urpi staff member explained it, pachamama would be an appropriate term in Quechua for Western concepts like 'nature' (naturaleza) and 'environment' (medio ambiente), for which there is no direct translation in Quechua.

For Urpi, ritual offerings exemplify co-nurturing between mother earth and Andean people. But others in Peru also place importance on rituals. 'Pagos', as they are commonly called, are a prominent marker of Andean culture throughout Peru, so much so that some people I interviewed defined Andean culture as 'doing pagos.' For example, when I asked Alfonso what he understood Andean culture to be, he answered: *"Es pago a la tierra, pago a la pachamama*" (It's payment to the earth, payment to earth mother). Urpi's work likely contributes to the tendency to associate ritual practices with Andean culture, but it would be wrong to say that the fame of the pago is an effect of Urpi's work. Like the concept of *apus* (mountains/gods), pagos and pachamama are commonly known across Peru. In Peru's national discourse, pagos have even become a symbol of interculturalism, evidenced by various rituals orchestrated publicly for state-sponsored events. Urpi staff preferred not to use the term pago, however, explaining that the interpretation of the ritual as a 'payment' was in fact a misunderstanding. Staff typically used the terms 'rituals' or 'offerings' (*ritual* or *ofrendas*, in Spanish). There was no Quechua word for pago, which is a Spanish word, used by my informants in Ancash. Campesinos I interviewed used term 'pago' or the Spanish verb 'regalar' (to give), whether speaking Quechua or Spanish, or they simply described the act.[60]

[60] For example, *patsata pagashun* (we will pay the earth) or *patsata qarashun* (we will give to the earth)

The concept of earth mother, however, has a local dialect pronunciation in Quechua (patsamama) but people also use the pronunciation from southern Peru (pachamama), which is more prominently recognized throughout Peru because of the centrality of Cusco in definitions of Andean culture. As I stated above, Urpichallay mixes pronunciations, and thus they use both versions, pachamama and patsamama, during their training workshops and activities. During interviews, I also gave people the opportunity to recognize both pronunciations, realizing some might be familiar with one or the other, or both. In the next two sections I treat both pronunciations as having the same meaning, as Urpichallay does.

Promoters and the Importance of Pachamama

All 12 Vicos promoters I interviewed knew about pachamama, but the concept of an earth mother was not highly integrated with their ideas about environmental protection. This was also the case among Vicosinos who had not been trained. Promoters did not explain rituals or pachamama in terms of protecting or nurturing nature. Further, the issues that concerned them regarding the environment, pollution, for example, were expressed in "Andean" terms but in the cause-and-effect language of littering dissolved chemicals, water acidity, etc. These understandings are consistent with Urpi's training (as the previous chapter addressed, Urpi trains promoters in environmental science and concepts) but they do not connect to Urpi's cultural arguments about the importance of nature within the Cosmovision. Only one promoter, as he described the problems with pollution, mixed the 'Andean' concepts with the 'Western' ones by stating: "a nuestra pachamama estamos contaminando" (we're polluting our mother earth).

When promoters described the concept of 'earth mother' to me, some went into detail about rituals they had seen performed by Urpichallay but not by Vicosinos, thus the degree to

which they saw pachamama or ritual offerings as a part of life in Vicos specifically varied. Although Urpichallay was one of their main sources for learning about pachamama, a few promoters had also learned things from their older relatives and talked about performing rituals themselves, or recalled members of their own family talking about pachamama. Others saw pachamama primarily as something Urpi taught, with little relevance for contemporary Vicosinos.

For example, Felipe was one of the youngest Vicos promoters, and was just 28 when I interviewed him in 2010. He had a young wife who came out carrying her new baby to listen as we talked on his front stoop in Wiyash. He had completed high school, something much more common among younger comuneros but unusual among middle-aged comuneros.[61] He worked as a driver, at times, while also maintaining a household chacra. He was a more recently trained promoter, having been trained by Urpi in 2008 in a promoter course, but after being given a cargo in the community he had to retire from water monitoring duties. Felipe's source for learning about the Cosmovision was Urpichallay. He associates pachamama with the past, however, describing the ritual he learned from Urpichallay in the past tense. He says almost no one in Vicos practices these rituals now:

> RK: Where did you learn about pachamama?
> Felipe: In Urpichallay
> RK: What did they teach you about this?
> F: they took us to a talk and told us that the land is pachamama, and water is yacumama, sun is teta inti, and mama quilla is the moon.
> RK: And did they teach you how to do anything, an offering for pachamama?
> F: Yes, when we plant, first row we plant is for pachamama, that's what they (ancestors) used to say, and before, they'd do rituals of thankfulness before cultivating, they would chew coca and give coca, a little alcohol, pouring it in a cross form.
> RK And do people from here do this?
> F: Now, almost no one does it

[61] Out of the 12 promoters, four had graduated high school.

[interview with Felipe, 2010][62]

Others, for example Miguel, associated the concept with other part of Peru, like Cusco. Miguel also learned about ritual offerings to nature from Urpichally, but saw them as originating elsewhere. After a moment during our interview he recalled that 'men from before' talked to the mountains, but not now.

RK: Have you ever heard of Pachamama?
Miguel: Yes in a meeting when we went up to the archaeolgoical site Quinranca
RK: With urpichalay?
M: Yes with Urpichallay we went up. We did pachamama, always this custom, a lot of custom, right? They [Urpi] always give coca to the mountains
RK: Before that had you heard of pachaamama or was it the first time?
M: Yes, I also heard that there are customs near Cusco, that around there they also talk like this, of pachamama
RK: Around Vicos too?
M: Around here, no. …[changing his mind] Yes, also, they used to talk to the mountains, yes. The men from before talked this way always.
RK: But around here they don't practice this custom very much?
M: They don't practice it, no.
[Interview with Miguel 2010][63]

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[62] "*¿Dónde ha aprendido usted sobre la pachamama?*
En Urpichallay
¿Que cosas les ha enseñado sobre eso?
Nos llevaron a una charla y nos dijeron que a la tierra es pachamama, y agua es yacumama inti es teta inti y mama quilla es luna
¿Y han enseñado como hacer algo, una ofrenda para la pachamama?
Si, cuando sembramos primero surco que sembramos es para pachamama decían antes y antes hacían ritos de agradecimiento antes de cultivar hacían su chachaban su coquita y le daban coca y un poco de alcohol y derramaban en forma de cruz.
Y la gente de aca hace eso?
Ahora casi nadie hace ya"

[63] "*¿Usted alguna vez a escuchado de la pachamama?*
Sí, en una reunión cuando subimos acá en arqueología de Quinranca.
¿Con Urpichallay?
Sí, con Urpichallay subimos. hicieron pachamama, siempre esa costumbre, mucha de costumbre, no? siempre regalan a los cerros, coca.
¿Antes de eso ha escuchado de pachamama o es la primera vez?
Sí, también [he] escuchado, hay costumbres por Cusco, por ahí siempre hablan eso, de pachamama.
¿Por vicos hay también?

In both examples from Miguel and Felipe above, promoters described learning about pachamama and rituals from Urpi, but did not identify what they learned with contemporary Vicos. Instead, they said, people in Vicos did not really practice these customs. Miguel even calls the ritual offering itself a 'pachamama' (*hicieron pachamama*), indicating a conceptual conflation between the idea of pachamama and the ritual act (which is not how Urpi describes it). These two promoters have learned to see Urpichallay as a source for a cultural knowledge that is relatively unfamiliar to them and that would otherwise not be circulating in Vicos. Further, in asserting that people in Vicos "don't practice it", both have delivered a narrative strikingly different from what Urpi says about these rituals. While Urpi's work is supposedly legitimized by the cultural relevance of the communities with whom they work, those with whom they work instead see the NGO as the contemporary source for these 'customs' (cultural practices).

Other promoters saw more direct connection between what Urpi taught and their own experiences in Vicos, or knowledge of Vicos's past. Leonardo was a 40-year-old comunero who lived along the main road running through central Vicos with his partner and four children. At the time I interviewed him, he was working part time in the mine Toma la Mano, which meant that he was away from his home every few weeks, and was no longer participating with Urpi as a promoter. However, he remembered learning cultural practices and concepts since his first days in training during Agua Para Siempre, and he described a rational for making an offering at sources of water in Vicos that reflected Urpi's narratives closely:

> RK: Have you ever heart of patsamama, or pachamama?
> Leonardo: Yes, in the land, the mountains that are around, they do a pago (payment)
> RK: They do a pago in Vicos?

Por acá, no. [changing his mind] Sí también, hablaban a los ceros, sí. los hombres anteriores hablaban siempre eso
¿Pero acá no se practica tanto ese costumbre?
No se practica, no."

L: Yes, they pay the earth with coca (like a ritual they do it), with coca, when you are planting in the field, you leave (coca)
RK: Why do they do that?
L: Because they say the land is alive. That's why it produces. … there's a place called Bandera Yaqu, and they pay there. To drink its water as well, they used to pay with the same rocks. You have to look for flat ones and with that, they paid after drinking water. It was that. It's at the mouth of the valley.
[interview with Leonardo, Vicos promoter 2010][64]

Leonardo's explanation points out that "the land is alive," matching Urpi's understanding of a world of seres vivos that extends beyond the human world. He also mentions ritual payments (of coca, which is how Urpi staff usually make offerings, as well as with rocks) in the chacra as well as at water sources. The fact that Leonardo calls this ritual a '*pago'* is also a pretty good indication that not all of his information came from Urpichallay, whose staff prefer the terms ritual and offering.

Like Leonardo, Orlando is another promoter who did not rely on Urpichallay for his knowledge of pachamama. At 44, he mainly dedicated his time to agriculture and animal husbandry and ensuring his two children got schooling (one was in high school). Because of his own education, which included finishing high school himself, Vicos leaders sometimes look for him and ask for his help water quality issues. At the time of our interview, he was also the *teniente gobernador* (lieutenant governer) for Vicos, an important leadership position that corresponds with the local state office. He was trained as a promoter during APS and considers

[64] *"Usted ha escuchado de pastamama o de la pachamama ?*
Si… En las tierras, y las cerros que estan... se hace un pago.
Hacen pago aca en Vicos?
Si….Se paga la tierra, coca, (translator: como una ritual se hace asi). con coca, cuando estas sembrando en la chacra, dejas
Porque hacen asi? Why do they do that?
Por vive, dice, la tierra. Por eso produce. ….hay un sitio que se llama Bandera Yaqu, allí se paga. Para tomas su agua tambien, se pagaba con la misma piedra, planas buscas y con eso pagabas despues tomabas agua. Eso era. Está en la entrada de la quebrada."

himself a 'founder.' He told me about his knowledge of pachamama sitting near the plaza with his sister, while waiting for a community meeting to be called to order.

> RK: Have you heard of patsamama or pachamama?
> Orlando: Yes, pachamama, I've heard it
> RK: What is it, for you?
> O: Long before, my father used to ask pachamama to give us more produce. Giving coca, chewing in its name. Asking favor from Señor, more specifically. He had these decorated clothes. Recently, these [names removed] are doing it, it's my father's inventory (practice) [Interview with Orlando, Vicos promoter 2010][65]

Orlando's explanations of pachamama reflect some of the things that Urpi also emphasizes, such as 'conversing' ("my father asked pachamama to give us more produce") and giving and chewing coca, which suggests a pago-like ritual. But his description also mentions "Señor" (God), which implies a conversation with a male, not female, entity, and also a hierarchical relationship because it is a term of respect. These details stand out in distinction from what Urpi teaches. Furthermore, Orlando's reference for pachamama comes from his own family; specifically, his father. Rather than attributing what he knows about pachamama to things Urpichallay taught, he recognizes this knowledge as part of his family. This is a different way of locating knowledge socially than how Urpi understands and uses knowledge. Because the NGO recognizes a pan-Andean concept of pachamama, individual people's knowledge of pachamama are part of a larger body of knowledge and practices that belong together. When Urpi collects information about pachamama from a population, they assemble it together in

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[65] "*Usted ha eschuchado de la patsamama o de la pachamama?*
Sí pachamama, he escuchado.
Que cosa es para usted?
Mas antes mi papa, pedían más anterior a la pachamama más producto que nos dé. Regalaban coca, así chackchaban en su nombre. Pedían el favor al señor mas bien. Tenía ropa adornos. Recién eses [name removed] están haciendo, inventario de mi papa es. Pero pachamama mi pedía decir regalo, botaba bastante producto de su chacra, así el otro año que bote, pidiendo el señor, regalando la tierra su coca así." [note that I've translated "su" as "it" although it could be female or male gendered]

books and documents that allow them to share as part of a cohesive narration. Individual quotes, beliefs, and practices become part of a larger set of beliefs reflecting a larger logic. But Orlando's comments express more personalized identification than that. When Orlando says, "Recently, these [names removed] are doing it, it's my father's inventory (practice)," he's talking about individuals who, through their work with Urpichallay and other NGOs, are learning to perform "Andean Culture" by talking about pachamama, making ritual offerings. Thus, what Urpi sees as cultural affirmation is leading some Vicosinos to engage in the adoption of practices that are new to them (in varying degrees) or, in Orlando's view, belonging to others.

Thus, after having been trained by Urpi, promoters did not fully embrace the perspective that Urpi teaches and instead represented a variety of interpretations of the key concepts through which Urpi staff see the Cosmovision being practiced. Some promoters described the local significance of specific practices like making a 'pago' at a water source where people drink on their way into the Quebrada, or soliciting a good harvest from pachamama. Some promoters identified with these practices because they had seen relatives performing something similar or had been taught by parents or grandparents, while others saw Urpi as an entity that performed "costumbres" that Vicosinos did not do, or described pachamama in the past sense. The extent to which promoters saw these practices as something done in Vicos varied. In the case above, Orlando alludes to the fact that other Vicosinos are 'recently' conducting these practices that he feels belonged to his father because of their involvement in the culture affirmation work that Urpichallay has been leading (the name I removed is a very prominent individual in Urpi's projects, although not an environmental promoter himself). Thus, trained Vicosinos are learning 'Andean culture' from Urpichallay, and relate their teachings to Vicos traditions they may know about, but they also have related them to Vicos's past and practices from elsewhere. The

diversity of understandings among just 12 promoters contrast starkly with the firm narrative of the Cosmovision expressed by Urpi employees. However, all 12 promoters still stood out compared to other Vicosinos in at least one way—they all *knew* about pachamama.

Other Vicosinos and Pachamama

Among the interviews I conducted with randomly sampled Vicosinos, the knowledge of pachamama was more limited in scope than the promoters. This indicates that promoter knowledge of pachamama does rely on Urpichallay, which is consistent with what the promoters themselves reported. About 60% of people I interviewed in the random sample were "familiar" with pachamama, and about 40% didn't even recognize term. Among those who did recognize it, about 20% of those explained it as a past belief but not as a significant social belief or practice in contemporary Vicos. The most common response to my questions about pachamama and pago-like practices was these were something that belonged to '*los abuelos*' or '*los antiguos*' (the grandparents, the ancients) but that people in Vicos today do not maintain these customs. Additionally, while some Vicosinos said they recognized the term pachamama, they confessed they did not really know or understand it.

Overall, even among these non-promoters, many saw the concept as something Urpichallay taught. For those who knew more about what pachamama was, Urpi was a principal source for their information. One former sector leader recalled his interactions with Urpi during his cargo in the community: "We always arrived in a place, gave it a little coca, its cigarette, and

if there was alcohol then (we gave) alcohol, if there was pisco, (we gave) pisco. First thing for them (Urpi staff).[66]"

Others talked about the older generations' customs related to pachamama. One older man described how he learned from his parents that chewing coca was a way to offer something to earth mother, but confessed that his own children did not continue the custom. Another said that some Vicosinos used to offer something to pachamama when opening up virgin earth to cultivation for the first time, but that the custom is disappearing because there is no more virgin earth in Vicos. A Vicosino man in his twenties said he learned to chew coca while working in a nearby mine. His coworkers, who were from Vicos as well as from other communities, chewed it and made offerings of leaves so that the mineral would not disappear. During my fieldwork, Diego started working in a mine in the Quebrada. On a visit home, he confirmed that ritual offerings were made in mines, and said that these were to "pachamama." Vicosino youth who never learned to chew coca or make offerings in their families were learning them instead as mine employees. It was clear from these interviews that the importance of pachamama and the practice of pago-like rituals in Vicos was widely varied and based on the individual experiences of Vicosino men and women.

Pachamama versus Patsamama

So far in my discussion I have subsumed both pronunciations of earth mother under the Cusco pronunciation (pachamama) for simplicity and based on the premise that they mean the same thing. However, I now wish to tease out potential differences between these two

[66] "*Siempre llegábamos en un lugar, le dábamos coquita, su cigarrillo, si había alcohol, alcohol, si había pisco, pisco. Primerito para ellos [Urpichallay].*" Note that the gender of the object (the "place" or "earth mother" in this case) is not evident. I have translated the pronoun as "it."

pronunciations—patsamama versus pachamama, I found evidence during interviews that people's choices of using one term or the other have a more nuanced significance, one that connects to their subjectivities. At the very least, the pronunciation difference is a linguistic clue for tracing the influence of the pan-Andean indigenous movement. When Vicosinos use the term pachamama, it means they are learning 'ancestral' Andean concepts from sources like Urpichallay that situate these within a larger pan-Andean culture (even if they themselves do not situate the significance of earth mother in the exact same way as the NGO). For example, most promoters used the term pachamama over patsamama, even if they recognized both. The following is a quote from a promoter named Armando. Armando was not trained during APS, but joined the committee later after receiving training from Urpichallay. He and his partner, Sara, live and farm in Wiyash, the last sector along the road before one starts to ascend into the high ravine called Honda. At 49, only his youngest son is still in school, so he was working for Caudolosa, turning their compost in a small greenhouse outside the mine operation, which would eventually fertilize native plants in the Quebrada. He traveled back down to the community on the weekends, and it was on a Sunday that we sat in the sunny Vicos plaza and had a conversation:

> RK: Within your training at Urpichallay did you hear about pachamama or patsamama?
> Armando: Yes, patsamama is earth. Pachamama. Earth.
> RK: Do people hear refer to that, do they use it?
> A: A few. More, then know '*chacra'* (cultivated field) they don't say pachamama [Interview with Armando, 2010][67]

[67] "*RK: ¿Dentro de su capacitación en Urpichallay ha escuchado sobre pachamama o patsamama?*
A: Si, patsamama es tierra. Pachamama. Tierra.
RK: ¿Acá la gente se refiere a eso, se usa eso?
A: Unos cuantos. Mas conocen chacrantsiq [our farm plot]. No dicen pachamama."

During our interview, Armando switched from the local pronunciation of earth mother to the broader one, seemingly treating the two terms as synonymous. I wondered briefly if he was correcting me when he said "Pachamama," as I had asked about patsamama first but he immediately switched to pachamama and continued to use this term for the rest of the conversation. Armando's switch is more significant that it seems, especially since he goes on to explain that Vicosinos do not use the term pachamama, but rather simply say "chacrantsiq," which is a local Quechua construction meaning "our farm plot." Like other promoters, Armando has learned about pachamama from Urpichallay, and his conceptualization has taken on the Pan-Andean form of the word. His definition of the word as 'earth' however seems to leave out important information that Urpi constructs as central to the concept: a female gendered diety, or any evidence of being a '*ser vivo*' (living being).

As the Vicos environmental secretary, Hector has participated in Urpi's promoter training since the first one in 2000, provided a detailed narrative of how he learned about pachamama from Urpi and other NGOs:

RK: Have you heard of pachamama or patsamama?

Hector: Pachamama, yes, we've talked about that, always in meetings with Urpichallay, meeting with The Mountain Institute. Sometimes an NGO comes, form whatever place, they come and we always talk about that. Pachamama. What is it? Our farm plot, our land, we say "*chacra*" (cultivated field) but speaking in the language, in the word of the ancients, our grandparents from before, they knew "patsamama" They knew their field like that. Why? Because the field produces everything, gave us food to eat, produces everything and everything we harvest, from that we eat. The *chacra* maintains us, gives us food, so it's like a mother, so we call the *chacra* 'pachamama' why? Because we get life from her. We live from the *chacra*.

RK: where did you learn this, from where?

H: Before, walking around places I always heard people talking about this, but when Urpichallay came, when meetings with NGOs came, The Mountain Institute, there I learned it all. Mother moon, mother earth, earth mother, and why they talked like that, and what things they called pachamama, and so I learned it recently, really really learned it. But I had heard people talking about it. But without analyzing it well. But when Urpichallay, TMI, NGO organizations came,

there I learned what they called pachamama. We always called it our *chacra*, nothing more. Before, the grandparents, the Incas, called it pachamama. Like that.

RK: Do they do something for pachamama?

H: Yes. For example, when we were doing the exercises, when we went to the valley, first we started giving something: a gift to pachamama. For example when we would go to monitor, to the Honda Valley, we started giving this… there is a place called *bandera yaku*, and there we started putting a little coca, a cigarette, a little alcohol,… giving to pachamama.

RK: Oh, when you went to do the monitoring.

H: Uh-huh, we always went in, with whatever visit or trip we went into the valley, yes always giving something of a gift, leaving it in familiar spots. Around here in the *chacra* for example we put coca, cigarette, and a little alcohol when there's alcohol, and when there's no alcohol then we don't. But we always leave coca, cigarette. So arriving at the chacra, we leave a little gift. A little coca, cigarette, saying "Take some grandfather, take some grandfather" and leaving it in the corner, like that.

RK: Before participating in the project, did you personally didn't know how to do that?

H: No no no, no yet! That's why I'm saying before we only knew it as *chacra*, that's all! And when the Incas, the grandparents, they didn't call it *chacra*, no. They called it pachamama! That's how it was.
[Interview with Hector, 2011][68]

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[68] *RK: Usted alguna vez ha escuchado de pachamama o patsamama?*
H: Pachamama, si, nosotros hemos hablado siempre en reuniones de Urpichallay, reuniones de instituto de montaña, a veces vienen de la ONG, de cualquier sitio que vienen, siempre hablamos eso. Pachamama. Que es? Nuestro chacra, nuestro terreno, decimos 'chacra'. pero hablando en idioma, en palabra de los antiguos, antes nuestros abuelos, conocían 'patsamama'. La chacra conocían así. Porque? Porque la chacra produce todo, nos da de comer nos da alimentar, todo produce, y todo cosechamos, y de allí comemos. La chacra nos mantiene, darnos comer, entonces ya parece una madre, entonces a la chacra nosotros llamamos, 'pachamama'. Porque? Porque vivimos por ella. Vivimos por chacra.
RK: Donde aprendió de eso, de dónde?
H: Yo, antes antes así andando los sitios yo siempre escuchaba hablar esa cosa, pero cuando vino Urpichallay, cuando vino reuniones de ONG, de Instituto de Montaña, allí me aprendí total. Killa mama, mama pacha, pacha mama, y porque hablaban, y que cosa decían pachamama, entonces yo conocí recién, bien bien conocí. Pero hablar, escuchaba. Pero no…No analizando bien. Pero cuando viene Urpichallay, Instituto de Montana, organización ONG, allí ya aprendí que llamaban, Pachamama. Nosotros siempre llamábamos nuestra chacra, nada más. Antes, los abuelos, inkaykos, llamaban "pachamama" así.
RK: Para pachamama, se hace algo?
H: Sí. Nosotros por ejemplo, cuando éramos haciendo prácticas, cuando salíamos a quebradas, primero nosotros empezamos dar algo regalo a pachamama. Por ejemplo nosotros cuando íbamos a monitorear, a quebrada honda, empezábamos regalar este… Hay un sitio que se llama

Hector describes how his engagement with NGOs via his role as promoter allowed him to truly understand the significance of pachamama, whereas before he had merely heard the term but had not fully captured what it meant. He narrates a way of coming to know and learn, via Urpichallay, about pachamama. While he recognized patsamama as something he first heard in Vicos, he explained that was not really was able to grasp the concept until he learned it from Urpichallay (as pachamama). Further, pachamama is how "the Inkas" thought about the cultivated earth. His descriptions also reveal that he has learned to conduct rituals through his work as a promoter, as part of their incorporation as promoters included conducting a ritual prior to testing water. He even mentions the same ritual location as did Leonardo (bander yaku) but unlike Leonardo, he narrates a process of learning from Urpichallay how to do rituals there, and beginning this practice himself.

Because they included explanations of pachamama and the practice of rituals in their training, Urpi began cultivating new subjectivities among promoters, as people who recognize pachamama in ways that are somewhat congruent with a pan-Andean ancestral identity. Hector and Armando do not see patsamama and pachamama as meaning different things, but their

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banderayaku, de allí empezábamos poner coquita, poner cigarro, y un poquito alcolcito, dejar una (Unaudible), así alcolcito, regalando a la pachamama.
RK: Ah, cuando se fue hacer los monitoreos.
H: Aha. Siempre entramos. Con cualquiera visita, o cualquier paseo íbamos a la quebrada, sí siempre le dábamos algo de regalo, dejábamos (en) sitios conocidos. En acá en la chacra por ejemplo nosotros ponemos un poco coca, cigarrito, y un poquito alcohol siquiera cuando hay alcol, cuando no hay alcohol. si no, no pe. Pero siempre nos dejábamos coca, cigarro sí. Entonces cuando llegamos (a la) chacra, dejamos un poquito regalito. Un poquito coca, cigarrito. 'Usted también sírvanse abuelito, sírvanse abuelito' diciendo, dejamos en rinconcito así.
RK: Antes de participar en el proyecto usted personalmente no sabía hacer eso?
H: No no no, todavía! Por eso, estoy diciendo que antes nosotros conocíamos por chacra nomas! Y cuando llamaban los inkaykos, los abuelos, no llamaban por chacra, no. Ellos llamaban por pachamama! Así fue. [Direct quotes from transcription]

preference for the pronunciation “pachamama” reveals the genealogy from which they learned this indigenous concept and the messages they received from Urpichallay (as well as possibly others) that ‘pachamama’ was an important term both broadly and historically.

Not all of Urpi’s trainees learn about pachamama in this way. Armando’s wife, Sara, was not trained as a promoter (none of the 12 promoters are women), but she was a participant in another one of Urpichallays projects (KOFI), and described attending workshops and learning about environmental protection practices from the NGO. However, unlike Armando and Hector, Sara understood little Spanish, and did not understand everything Urpichallay taught. When I asked if she had learned about patsa/pachamama, she said, “I’ve heard that, but I haven’t understood much, mamita. In Urpichallay I heard it, but I didn’t understand that part very well.” I asked if perhaps she had heard something from other Vicosinos, but she said no.

Sara speaks Quechua, and patsamama is a term in local Quechua. Yet she did not learn it from her fellow villagers. She also did not learn the pan-Andean version from the NGO, despite having been trained in what it means. The discrepancy between her and her husband illustrates an interesting shift occurring in Vicos—people like Armando (and Hector) are acquiring a more self-conscious indigenous identity, linked to a pan-Andean history and social movement. They are learning pan-Andean indigenous concepts from NGOs, while others (untrained Vicosinos and monolingual Quechua speakers, disproportionately women) are forgetting the autochthonous equivalents.

The fact that Sara and Armando are a married couple further raises issues about how different experiences and opportunities by gender intersect with this subtle linguistic shift and the understanding of indigeneity and identity that accompanies it. The imbalance between them in understandings of pacha/patsamama implies limits to the relevance of complementarity in the

Andean couple in this context of cultural transformation. Even if some of Sara and Armando's roles reflect the complementarity Camila explained during the workshop (which did appear to be the case during my visits with them, as they divide many household tasks in this way), the lopsidedness with which they have engaged with this indigenous Andean concept raises questions about what complementarity might mean when one half of the couple conceptualizes Andean culture in a self-conscious and pan-Andean modality and the other does not, even if she 'lives' it. The gender significance of this dilemma is deepened when considering that pachamama is a female diety that Urpi argues symbolizes women's importance. Yet, some promoters (including Armando) described patsa/pachamama in ways that equated it with 'earth' or with 'Señor/dios' but not with a female deity.

There are also non-promoters who recognize the discrepancy between patsamama and pachamama. I will draw on one example to illustrate, although in this case rather than representing a broader pattern, the individual I describe presents a unique perspective among those I interviewed. Lorenzo was a 46 years old when I interviewed him in 2011. Lorenzo hired laborers to maintain his chacra, since he worked full time as a school teacher after having obtained a university degree. He was also the *Alcalde* (mayor) of the *Centro Poblado*[69] Vicos at the time, although in the past he had been president of the Vicos community in 1997 and 1998. Under his leadership, the community created their first written regulatory statutes and created committees as institutions, just prior to Diego's cargo as president and the initiation of Agua Para Siempre.

[69] A centro poblado is an official name for a populated area, usually with an urbanized center (groups of houses, streets, and a plaza). The Centro Poblado Vicos elects a mayor and five managers.

Lorenzo did not see pachamama and patsamama as equivalent at all. He criticized Urpichallay's cultural affirmation method and dismissed the relevance of their teachings:

L: Mostly they do that in the southern area. Here, very little. In the old days, parents gave their reasons to few. Some people who have gone—for example (name removed) —others who have walked with Urpichallay, CEDEP (another NGO) they have now learned. In truth, it's not autocthanous nor native to Vicos, these types of expressions. They don't exist. It's something of a lie, textually….
RK: What is the lie?
L: This word pachamama, in Vicos, it didn't exist before. Nor does it now. Some people like I tell you, have recently learned it, know it. Or better, they had a different expression, patsamama. They considered that to be earth, like cultivated earth, and would say this to the productive earth and also to…here, they don't call them Apus. Apus comes from Cusco, from Puno. It's the mountain, the hills. It could suddenly cause an enchantment, or a curse…. but here they don't deal with it (they don't recognize it) [Interview with Lorenzo, 2011].[70]

Lorenzo does not accept Urpichallay's pan-Andean approach to culture. He sees concepts like pachamama (which he distinguishes from the local 'patsamama'), and 'apus' as imported. They come from Cusco, from Puno, from other places in Peru and they are not part of Vicosino history or ancestral knowledge. By saying that it is a 'lie' Lorenzo invalidates the ways that those who have worked with Urpi and have learned about the Cosmovision from them as inauthentic. Instead of practicing Vicos culture, they are practicing a culture that has been imported, from elsewhere.

Urpi sees their ideas as referring to a broad, shared idea of culture that spans the Andes and connects the people living there today to Incan times, even if a great deal has changed. It

[70] *L: Mayormente eso hacen en la zona sur. Acá casi poco. Antiguamente, los padres no dieron ciertos razones a pocos. Algunos que ha ido-por ejemplo acá [name removed], otros que han andado con Urpichallay, Cedep, ellos ya aprendieron. En sí, no es autóctono de ni oriundo de Vicos ese tipo de expresiones. No hay. Es algo mentira, textualmente. ….*
RK: La mentira, que es?
L: Ese palabra pachamama, en Vicos, no existía antiguamente. Ni a la fecha. Algunos, como te digo, ya aprendieron, ya conocieron. Más bien tenían otra expresión, patsamama. Lo consideraban, tierra, como cultivo, y decían a la tierra productiva, también decían. …Acá no se llama de apus, apus vienen de cusco, de puno. Es la montana, el cerro. Nos puede de repente darnos algún encanto, o nos puede dar algún "ojeo"[evil eye/curse] o también un (inaudible), etc. Pero eso acá no se trata. [Direct quotes from transcription]

positions the campesino people of the Andes as being the holders of an (indigenous) worldview that honors and respects nature in various forms. Vicos is a place that Urpi's discourse positions as the kind of community where the Andean Cosmovision continues to exist, although Westernization threatens it. The relevance of the Cosmovision for Vicos should be self-evident according to this logic, but not all Vicosinos see it this way. This means that some Vicosinos undergo training and are learning ideas about their culture from Urpichallay that other Vicosinos see as non-autochtanous or irrelevant to Vicos, or that other Vicosinos simply do not recognize. Promoters are also learning new contexts for knowledge, such as during water monitoring.

"Andean Rituals" in Vicos

Do trainees go on to apply what they learn from Urpichallay about making offerings to pachamama? When I asked one Felipe if he practiced the agricultural rituals he learned from Urpi, he said:

> Now, no. To save time I go quickly, and begin quickly. Before people would take their time. Sometimes when I remember I ask God to help me today in the planting, so that there is production, like that in my mind, but not publicly.
> [Interview with Felipe, 2010][71]

As suggested in the quote above, a major difference between the rituals I saw Urpichallay perform and those few I observed in Vicos was their public nature. Urpichallay's rituals, like the one I described being conducted by Nestor, were clearly a group activity in which everyone watched and participated. The group would stand in a circle around the person performing the ritual and participated by taking small drinks of alcohol or chewing coca, and then hugging at the

[71] "*No ahora. Por ganar tiempo voy rápido comienzo rápido. Antes se tomaban tiempo. A veces cuando me acuerdo pido a Dios que me ayude hoy día a sembrar, que haya producción, así mentalmente y no público.*"

end. When I commented to Nestor one day that I had seen little evidence of similar ritual offerings in Vicos, he said 'they do it secretly'.

Promoters described participating in rituals with Urpichallay, but I did not observe them doing anything similar on their own and none described adopting this practice more broadly in their lives.[72] During my fieldwork in Vicos I observed few rituals that had any recognizable similarities to those conducted by Urpichallay or to pagos I had seen performed elsewhere. Instead, I observed participation in Catholic masses and benedictions conducted quietly to one's self. The times I observed pago-like rituals most similar to those conducted by Urpi was in the context of the tourism cooperative *Cuyaquihuayi* as part of the experience they offered tourists. As part of my random sample interviews, I interviewed two tourism hosts using the same questions I used with promoters and other Vicosinos. I first met Mateo and Regina in 2004 during my MA research on the Vicos tourism cooperative. This couple had worked with the Mountain Institute in 2001 to build small guest houses and establish a set of activities for tourists who would visit and stay in their homes, and in the years since, they hosted anywhere from a few to a few dozen guests, in turn with the other 7 host families in the community. Additionally, they worked intensively with Urpichallay over many years on biodiversity; Mateo and Regina's chacra was filled with native potato varieties that were hard to find in other places in the Huaylas Valley. During our interviews they each told me, separately, about how they 'recuperated' the practice of performing rituals for tourists. For example, Regina said:

We talked about what our grandmothers did. Mateo, his grandmother, she taught me. Making the "santa cruz" [crossing one's self]. In cuyakuywayi, when we began, we did pagos. Asking Huascarán [nearby mountain] and llaqshaq [nearby lake] that our tourists would return in health to their home countries.

[72] Since they had all but ceased monitoring water by 2010, I had few opportunities to observe whether they conducted rituals each time they took water samples. However, the times I did see them test water, they did not conduct a ritual.

[interview with Regina, tourism hostess][73]

Mateo and Regina were far more aware of their "culture" than other Vicosinos, and had put forth effort to recuperate family practices that other Vicosinos had not maintained. This is in because their training in hosting tourists had involved identifying aspects of their culture that they thought foreign tourists might appreciate learning about and establishing these acts as part of the tourist product they offered (Kalman 2005). Further, working closely with Urpichallay they learned from NGO's cultural emphasis. While neither one of them had been trained as a promoter, they did recognize terms that were otherwise uncommon in Vicos. For example, Mateo explained that "indigena" meant "doing *minkas*[74], grouping people together, working without paid laborers but in exchange" and "*cultura andina*" meant "using traditional clothes that are made naturally, from wool, not synthetic." Most Vicosinos I interviewed had never heard of these terms, or associated being "indigena" with people of the *selva* (lowlands).

As mentioned in Chapter 2, while living in Vicos I stayed with Diego and Martina, a couple who also participated in the tourism cooperative. Like other cooperative members they hosted tourists several times a year in their small guest house as an income supplementation strategy. During these visits, the tourists participated in farming activities and shared some of their customs. While hosting tourists, Diego always put on his *ropa tipica* (traditional clothes, made from natural wool), and Martina served food in the traditional *matis* (gourd bowls) and not the metal or ceramic plates she used on a daily basis to feed her children. In this way, Diego and Martina performed their culture by reverting to what they saw as older practices (*tradiciones de*

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[73] *'Hemos hablados sobre que han hecho nuestras abuelitas. Mateo, su abuelita, me ha hecho aprender. Haciendo "santa cruz" (crossing one's self). En cuyaquiwayi, cuando hemos empezado, hemos hecho pago. Pidiendo Huascarán [nearby mountain] y llaqshaq [nearby lake], que nuestros turistas regresan sanos a su país.'*[interview with Regina, tourism hostess, 2010]

[74] A 'minka' is a form of reciprocal labor exchange common in the Andes.

los abuelos) and by removing some symbols of modernity from their lives. Like Mateo and Regina, Martina and Diego had also participated in some of Urpi's other projects. Diego had originally sought collaboration with Urpi to protect water (resulting in APS) because, he said, he admired the work the NGO did recuperating culture because it was something he personally valued. Both my hosts also had a great deal of awareness of their "culture."

Martina and Diego were an important source of information during my research because of their willingness to discuss their customs and explain their culture. For this reason, I followed Martina to her field on the eve of San Juan. I had been told by Urpichallay staff and others that Vicosinos perform a ritual burning of pasture refuse in their fields at sunset during the Festival of San Juan to ensure the reproductive health of their animals. Martina had agreed to show me "how they do the burning" and related my interest to this custom to that of the tourists she often hosted by playfully calling me her "*visita*" (her term for a tourist visit). Upon arriving in the field, however, we realized we had brought no matches and therefore could not carry out the custom. While I watched the columns of smoke appear over other chacras, Martina wandered over to her cow. She started rubbing a ten *sol* note (money) on the cow and whispering in its ear. Seeing this, I became interested and asked about what she was doing. She seemed surprised at my interest. She said she would take the money to Mass the next morning where she could obtain the priest's blessing, ensuring health for her animals.

The San Juan burning and her actions with the cow served similar purposes—they were both supposed to secure the health of livestock. However, rubbing money on her cow for a catholic blessing was not something she saw as relevant to my interest in observing a traditional ritual. Martina was eager to show me the ritual burning that she saw as a Vicos "custom," similar to the kind of ancestral cultural activities that interested tourists. I am not sure if Martina saw her

actions with the cow as a 'ritual' or not, but it seemed clear that she did not see it as a part of her Andean culture, given that she knew I was interested in "Andean culture" but did not think I would be interested in her rubbing money and whispering to a cow. As I walked back through Vicos that evening, I passed many other families who were conducting the burning in their fields and I spoke to them about this practice. None of them mentioned pachamama (or any other Quechua diety such as Tayta Inti) or gave any explanation of the act other than to say this was a 'custom' that they had.

These examples reveal something about how an idea of culture does and does not map onto practices for people in Vicos. For Martina, some customs matter more than others when it comes to performing Andean culture, and this is likely due to her experiences with tourists and NGOs (and perhaps also anthropologists) interested in culture. For many others in Vicos, the question of whether something represents an Andean Culture seems to be irrelevant. Customs can be a variety of things done for a variety of reasons, but are not conceptualized the way they are explained in Urpichallay's materials, and do not need to be linked to pan-Andean idea of culture in order to matter.

I do not mean to imply that Vicosinos are not connecting to the earth and mountains through their practices, or express an Andean spirituality in other ways. My methods were not designed to thoroughly document and parse out spiritual life in Vicos, and I did not employ an anthropological definition of ritual to identify what things 'counted.' Instead, I looked at what practices were being called rituals, offerings, and pagos, and by whom, and how these related to what people saw as Andean culture, then looked for similar practices being performed. The fact that I observed only a few pago-like rituals in Vicos (besides the evening of San Juan) might mean that Vicosinos do not regularly perform these rituals. This is consistent with what many

Vicosinos suggested to me in interviews. Or it might mean that in Vicosinos they perform them secretly or privately, as Nestor suggested. Or perhaps it means they perform them differently enough from what Urpichallay does so I, therefore, did not "see" them. What I was able to document, however, is important: the public and elaborate style of ritual performed by Urpichallay was not common among Vicosinos themselves except in very specific context (like entertaining tourists).

My observations also demonstrate that "Vicos" can appear quite differently depending on the context being observed. Tourists see Vicosinos performing elaborate offerings. Those attending Urpi events see Vicosinos participating in these offerings as well. Privately, some Vicosinos engage in ritual acts directed towards pachamama, or sometimes towards 'el Señor/Dios' with a more ambiguous relationship to their "culture." Further, while rituals can link understandings of pachamama to environmental stewardship, as when promoters made rituals to water sources before testing, pago-like rituals were also associated with practices and understandings of nature that were not intrinsically conservationist, such as when mine workers paid the mine with coca leaves to ensure abundant mineral, or tourist hosts made offerings to ensure the safety of their guests, or when people burned trash.

While Diego was interested in revitalizing ancestral culture, not all Vicosinos see this as a valuable activity. For those working in tourism, there is clearly an incentive to recuperate ancestral practices other than an intrinsic value of Andean culture. But even some of the promoters who were trained by Urpi associated these with the past, and were not necessarily interested in revitalizing that past. Among the promoters, some saw Urpi's teachings as more related to Vicos than others, because they associated what they were taught by Urpichallay with things they had learned or heard about from older Vicosinos or Vicos's past. Yet for others, for

example Miguel, these teachings were associated with Andean culture elsewhere, for example in Cusco. Finally, Lorenzo has dismissed Urpi's pan-Andean version of culture as not autochtonous, and therefore irrelevant to Vicos.

Outcomes of Cultural Affirmation

Urpichallay's goal of affirmation of Andean Culture is premised on the assumption that Andean Culture is under threat or in decline in places like Vicos. Some of the people who work most closely with Urpichallay provide examples of the Andean Cosmovision that the NGO reproduces. The fact that these individuals reflect the NGO's discourse could be interpreted as evidence that Urpichallay's efforts are working: people who have participated in their projects exhibit a "revitalized culture" (deeper knowledge/appreciation for the practices and concepts Urpi emphasizes). Since Urpi's participants narrated learning about Andean culture from Urpichallay, they further contribute to this story.

However, the process of affirmation is not as straightforward when under closer scrutiny. Urpi's trainees have come to understand Andean culture as something that Urpi is an expert on, and thus can arbitrate. They see each other (as promoters from different communities) as having different degrees of Andeanness (indigeneity) and this leads them to judge each other's efforts to conserve nature differently. This is exemplified in the encounter between two RRCAA committees, Vicos and Huallanca.

The outcomes of cultural affirmation in Vicos are also much more complicated than simply determining whether or not 'culture' has been revitalized there. First, because some Vicosinos work closely with Urpichallay, they adopt much stronger understandings of the NGO's concepts, this creates an uneven effect. Some Vicosinos have worked closely with

Urpichallay since Agua Para Siempre, participating in multiple projects over the years and learning about the Andean Cosmovision; others have not. At the same time, some Vicosinos learned ritual practices and the importance of patsamama from their parents or grandparents; others did not. Those who participate heavily with Urpi have had an opportunity to learn more about what many see as 'their culture', filling gaps left during their own socialization with what Urpichallay provides. Hector's narrative exemplifies this well. Others, like Orlando, see Vicosinos learning and adopting practices that they identify with their own families and ancestors, and view this process with skepticism because from their perspective, these Vicosinos have only recently taken an interest in something they feel is part of their own family's tradition. Those who are proud to have learned traditions from their own parents must now compete with those who learned from sources like Urpichallay. At the same time, Vicos is in a context where these "traditions" are increasingly valuable as cultural capital because of the importance Urpi places on them but also possibly because of their potential to be sold to tourists. Thus, under the surface of what many (tourists, NGOs, and other campesinos) see as a strongly cohesive and traditional Andean commmunity, there are political struggles, factions, and competitions among Vicosinos who vie to be recognized as leaders or as carriers of important traditional knowledge.

Another outcome relates to the overall mismatch between Urpichallay's cohesive and idealized narrative about Andean people's beliefs and practices and the variety of beliefs and practices among Vicosinos, including among those who learned from Urpichallay. While trainees among RRCAA learn to assess each other's Andeanness, others who have encountered Urpi's discourse also apply what they learn to evaluate the campesino communities for potential evidence of an indigenous conciencia. This has some negative effects on Vicos because, as stated, Vicosinos overall do not match the representations Urpi makes of them consistently.

In this last section, I quote from conversations I had with two individuals. One is a language activist in Huaraz who works to teach and revitalize the Quechua language. The other is a staff member at the Huascarán National Park who has had experiences working with both Urpi and Vicos. Because the nature of these comments is somewhat disparaging towards Vicos, I have opted to conceal the identity of the speakers. I select these comments because they illustrate a potential pitfal of Urpi's intention to link Andean Culture to conservationism, especially in relation to the case of Vicos, where Vicosino actors reflect this Cosmovision to different degrees and for different reasons due to their varied interests, training levels, and personal experiences. Further, the uses of resources by Vicosinos reflect these varied interests and therefore do not always reflect conservationist ideals. I explain this situation more in a later chapter, but here I wish to emphasize the ways that an interpretation about a community's culture is being linked to their resource decisions and relative 'conciencia.'

As one language activist in Huaraz remarked to me about Vicos:

> In Vicos, they like money! That's a problem. When you like money, that's not our Andean Culture. Wanting money and thinking of money is the other extreme, the opposite of Andean Culture. People in Vicos got used to having money because the mines gave them money. Now, they aren't Quechua anymore. When people care about money, they stop caring about pastamama, the water, farming, everything. They are losing their language and culture [Fieldnotes 2007]

The community government of Vicos regularly makes decisions that are at odds with environmental conservation as it is seen in the environmentalist movements as well as by the Peruvian state's governing bodies. The Vicos assembly has allowed informal mining, even as promoters demonstrated the decline of water quality there, because of the other benefits mining provides to Vicosinos. I contextualize this scenario more in following chapter, but here I wish to point out how Urpi's representations of Vicos as a vestige of Andean conciencia has, in a sense,

backfired. One of the officials at the National Park office explained his reaction to Urpichallay's work and his conclusions about Vicos:

> Urpichallay gives books on the culture of water, about what they think of water. It's very beautiful. I don't understand, then, what is the relationship to this? To the informal mines they have? Why is it written in a book, conservation of water, culture of water…. why don't they respect their book, just that? The book that they did with Urpichallay, with all those people, about what the grandparents say all of that, why don't they respect it, just that? If they would respect that, just that, without the presence of the park, without anyone, there wouldn't be those mines there. It's beautiful what they say, that the water, the lakes, this and that, its' fine, but just what they think about water… the culture of water. Why doesn't it relate to their actions? [interview with staff member at PNH, 2010][75]

While he was not convinced that Vicosinos possessed the cultural view of nature elaborated in their book with Urpichallay, he did think that true Andean culture was conservationist with its pagos and respect for nature:

> For me, Andean culture is the way that the communities see their mountains, hills, gods (*apus*) and respect them, to which they do pagos. And they know that the problems that they generate above, that below there will be consequences. That's the Andean culture. Urpichallay has done this, has created this with them. But in practice does it work? You think? It doesn't work. The practice doesn't work, that's what I think. In the Huaylas Valley it doesn't work. In other communities in Peru it works until the dirty money from mining comes, and things change. The beautiful parts have changed.[76]

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[75] *"Urpichallay da libros cultural del agua, de lo que piensan del agua. Es muy bonito! No entiendo entonces, cual es la relación con esto? Con las minas informales de ellos? Porque está escrito en su libro, conservación del agua, cultural del agua…. Porque no hacen respectar su libro, nada más? El libro que han hecho con Urpichallay, con toda esa gente, lo que dicen los abuelos todo eso, porque no hacen respetar nada más eso? Si ellos serían respetar eso, nada más, sin presencia del parque, sin nadies, no habían esos minas acá. es bonito lo que dicen, que el agua, lagunitas, que esto que esto, está bien, pero solamente siendo lo que ellos piensan del agua, porque son libros muy bonitos, has leído, no? La cultura del agua. Pero no tiene relación con su accionado."*

[76] *"Para mí, la cultura andina es ...la forma como ven las comunidades, su montaña, su cerro, su apu. Y acuerdo respetan. A cual hacen pagos. Y saben que los problemas que si generan alla arriba, van a tener abajo las consecuencias. Ese es la cultura andina ya. Pero, Urpichallay ha hecho, ha construido con ellos eso. Pero en la práctica funciona? Tú crees? No funciona. La práctica no funciona, creo yo. ...En la callejón de huaylas no funciona. En otras comunidades en Perú, funciona hasta que venga el sucio dinero de una mina, y les cambia. ... Lo bonito se cambió."*

The PNH official also noted that in the Huaylas Valley, people do not practice Andean culture like they do in the south of Peru. He goes on to agree that yes, because it is in fashion, younger people have adopted the practice of calling mountains 'apu' but he says if I ask the 'abuelos' in Vicos, they do not recognize Apus, "Aca no hay ningun apu" (here there are no apus).

Urpi's construction sets up an argument about indigenous Andean people being conservationist because of their Cosmovision. However, Vicos does not consistently exemplify this Cosmovision or the representations of Andean Culture that Urpi produces. Further, they do not represent the link between environmentalism and the Andean Cosmovision in the right ways, but rather appear to hold supposedly 'cultural' practices and views that do not mesh well with Western conservationism. As a result, they sometimes end up appearing to be a community that has been degraded or lost its Andean Culture, and therefore lacks conciencia.

Urpichallay's mission to revitalize Andean culture is meant to be empowering. It is meant to assert the legitimacy of ways of viewing nature that fall outside the hegemonic scientific technical aspects and to shed light on traditional practices that are in line with environmental conservation (as opposed to the focus many give to environmental damage of traditional practices). It is meant to convince those who do not see the world from the Andean Cosmovision (State officials, for example) that Andeans have a valid perspective that values nature and cultivates stewardship-like relations with it, and that others in Peru can learn from Andeans. But, in some ways the emphasis on a pan-Andean Cosmovision seems to be undermining the actual and historical conditions in campesino communities. This is particularly pronounced in the case of Vicos, where some aspects of life are read as strongly traditional (for example the prevalence of Quechua, styles of dress, fiestas, and commitment to communal governance) while in other

ways Vicosinos contradict the image presented by Urpi of 'respecting' nature via ritual and cosmological beliefs while simultaneously acting in conservationist ways.

Because of the link they assert that exists between the Andean Cosmovision and environmental stewardship, the two become entangled when actors speak of conciencia. Culture "loss" becomes understood to be a key variable influencing Vicosinos' environmental decision-making. In the statement, above, from a state worker, it is even applied as an explanatory framework for environmental behavior and leads to judgements against campesinos such that blame for their role in environmental degradation is linked to their supposedly degraded culture.

Conclusions

NGOs deploy discourses and shape subjectivities. In the case of Urpichallay, the discourse of the Andean Cosmovision overlaps in some ways with a multicultural moment in Peru's history, but in other ways it is a counter-hegemonic effort to critique modernity and offer an alternative. Urpi applies this discourse in the hopes of shaping people's identities and desires (Foucualt 1995; 1982). This shaping includes their own staff members (via PRATEC) and actors in other institutions (such at the National Park), as well as the rural trainees that are the focus of their work. While Urpi's work represents an effort to create new indigenous subjects and subjects sympathetic to indigenous people's culture, the results of this effort have had varied effects; I used the case of Vicos to illustrate these.

Because Urpi import practices and concepts (that are about human-environmental relations) from other parts of Peru, individuals they train in Vicos have begun to adopt these. This is most evident in the adoption of the pronunciation 'pachamama' alongside 'patsamama.' Vicosinos are also learning new ways of applying the "culture" that Urpi hopes to affirm. In the

case of the environmental promoters, this includes making ritual offerings when they monitor water, although promoters did not adopt these practices more broadly into their lives as a result. Others in Vicos have come to perform offerings in the elaborate style Urpi practices when hosting tourists. Yet, others make their ritual offerings discretely, sometimes to patsa/pachamama, sometimes to 'Dios.' At the same time that these changes are occurring, there are Vicosinos who are uninterested in these rituals and see Urpi's practices and concepts as irrelevant to the community because they are of the past, or not autochthonous. Still others are more or less excluded from the conversation completely because they feel they did not "understand" Urpi's concepts, nor did they learn about these Quechua concepts from their own relatives in Vicos.

These dynamics in Vicos around the concept of Andean culture contrast dramatically with the image of Andean Culture painted by Urpi's discourse. Camila's description of the Andean Cosmovision that opens this chapter links it to a rationality for caring for nature, with a special understanding of the relationship between people and nature. This link is inconsistent, at best, in Vicos since some of the practices that are most ritual-like are associated with environmentally damaging actions, such as burning waste and mining. The opening vignette also shows how members of Urpichallay act as authorities who define and explain the Cosmovision and its relevance—even in the presence of campesinos who supposedly exemplify it. Third, it shows how this image can lead people to see Andeanness as an important variable that influences conservation outcomes. Urpi thus encourages trainees to evaluate Andeanness, and to understand specific practices (learned from Urpi or not) as part of being indigenous Andean. In the exchange, Huallanca members admired the relative Andeanness of Vicosinos (as 'traditional'), and saw their apparent successes in environmental management linked to it. As I have explained

in this chapter, Urpi sees these kinds of efforts as cultural affirmation, drawing on the useful knowledge of the past. I see it as the attempted production of indigenous subjects that are both modern and indigenous.

Weismantel argues that strategic essentialism provides indigenous advocates with a vision that can guide action and imagine a better future, and thus anthropologists should not misunderstand essentialism as a mere misreading of the past. Idealizations of Andean culture can empower people's beliefs in their capacity for survival (and for tourist participants, they've also helped produce material survival). Weimantel also urges anthropologists to understand activist images of indigeneity as visions of antimodernity, useful for opposing unwanted changes. Examining how these visions are used by advocates that offer alternative development, like Urpi, reveals that essentialist images, even when strategically deployed, have had some negative repercussions. This chapter reveals one such repercussion—negative views towards campesinos when they do not reflect idealized representations of Andean indigeneity. This is certainly not the intention of the NGO.

Table 1: Results of Sorting Activity with Urpichallay Staff (English)

Practices Attributed to the Andean Cosmovision		Practices Attributed to Both		Practices Attributed to the Western Worldview	
Beneficial	Harmful	Beneficial	Harmful	Beneficial	Harmful
Conservation through rituals	Waste water goes directly to river, washing clothes in river	Reuse and recycle what can be	Indiscrimi-nate use of plastic bags	landfills	Increase in automobiles and manufacturing
Conservation of earth mother through natural signs	Use of aluminum bowls	Use bags and utensils that decompose	Transgenic seeds in Andean crops		Burning of tires
Agricultural Terraces		Turn off light when it's not needed	Introduction of exotic species		Burn and throw in river, valley, or bury waste
Maintain agro-biodiversity, necessity, and pride		Use of organic fertilizer			pesticides
Children learn to live with nature, not against nature		Keep water clean/use renewable energy			Wastewater ways that empty into river
Healthy and natural food		Separate organic and inorganic waste			People (young, urbanized) lose their vision of the Andean Cosmovision
Buying products without disposable bags and plastics					Throwing trash into river
Buying local products					The noises caused by transportation

Table 1 (cont'd)

Allowing the land to rest					Indiscriminate use of energy to maintain cities
Recuperation of rituals with plants that call water					Monoculture farming, with chemicals, low in nutrition
Taking care of Andean agriculture, water, soil, air, and the whole environment					Destruction of forests
					Buying products from far away
					The big industries that contaminate the ozone layer
					The use of soil without considering periods of rest
					Believing that man is the most important in the world, not a part of the world
					Plastic or all that is inorganic in excess
					Use of fertilizers and pesticides
					The rivers are natural sewers

Chapter 5:
Technical Science and Environmental Authority

I sit in the auditorium of Jangas, a municipality about 20 minutes outside of Huaraz and the closest urban center to the large gold mine, Pierina. The mayor begins the meeting: 'We are going to address a topic that is very worrisome for the communities,' he says.[77] The meeting is of the Jangas Environmental Management Committee [*Comité de Gestion Ambiental Jangas*], a multisector environmental committee that formed in response to accusations of contamination by Pierina's operating company, Barrick. The mayor of Jangas presides as president of the committee, which includes representatives of state health and mine regulation agencies, an NGO called CODISPAS (*La Comisión Diocesana de Servicio Pastoral Social,* a human rights organization associated with the Catholic Church in Huaraz), communities from the surrounding rural the areas, and Barrick. The previous year, the committee took samples at rivers and springs throughout the area and some results showed dangerously high levels of heavy metals and acidity. The mayor introduces a scientist who will present the results and discuss their significance; she begins her presentation by explaining why testing was done at these 20 different points, including several of the Santa River and microbasins. 'These are established points,' she reminds everyone, 'and there is a protocol for testing.' She explains the results, point by point. 'Point 13 cannot be used for human consumption or for irrigation. Point 21 has high levels of cadmium and copper. Point 18 is Rio Santa, and it has arsenic. None have mercury or lead, though, so that's good news.…'

[77] All quotes in this opening description of the meeting in Jangas are taken from fieldnotes and my descriptions are expanded from field jottings. Throughout the rest of the chapter I use double quotation marks for direct quotes and single quotation marks for fieldnotes.

The presentation raises a great deal of concern among the rural leaders present, who ask questions that draw on their own observations. In one community, the reservoir has turned light blue. 'What does that mean?' The technician checks her records to figure out which test result would correspond. 'It's acidic,' she says, 'and has high levels of cadmium and magnesium.' 'Can the water be fixed,' asks one of the municipal officers? There are methods to treat the water, the technician explains, but they are expensive and it might be a better solution to just find new water sources instead. Or if that is not possible, then the water must be treated. 'Or else the children will die of cancer,' she says.

It further comes to light that some waters being evaluated as irrigation water are also used for drinking in the communities. Representative members of the surrounding campesino communities who attended today's meeting begin to voice their concerns. A campesino man stands up and explains the dilemma from his perspective:

> We go the field and, using whichever spring, we make our lunch with that water. We don't know which ones are contaminated...We drink that water, all of us! Up there, there's just spring water, nothing more to drink. Children pasturing animals drink the springs as well.

Another campesino comments similarly:

> We drink irrigation water, that's all! We're at the foot of the mine. We are going to put a ribbon up to show that it is not for human consumption. But this is the
>
> responsibility of the mine company! Before, all of these springs were normal. We drink, make canals, and cook our lunches (with the same water). Up until now the mine hasn't cared [*preocupar*]. The mayor, as father of the communities, needs to care. Let's talk with the mine company and find a solution to all this.

As the meeting continues, disagreements start to emerge over who should take what kind of action. Rural residents look to the mayor, Barrick, and state agencies to find solutions. A representative from the local health office (*Dirección Ejecutiva de Salud Ambiental*, or DESA) reminded everyone that her role is purely "technical." She is there to oversee that the testing

protocol is followed correctly. Ultimately it is up to the local authorities to find new water and negotiate a solution:

> We don't tell the mine to do this or that. That's not the function of DESA. It's to take a correct water sample. We don't say, mine, build a reservoir. But the people who need to address this are the authorities. Every single one of you [DESA representative]!

A community leader responds by saying that as local authorities, they cannot because they do not have enough knowledge: 'We don't know how or where it's been contaminated. The mine needs to do it directly.…'

One of Barrick's representatives, an environmental engineer whom I will call Geraldo, speaks in response:

> We're the most visible, so it seems everything relates to us. It's not that simple... We have to follow the correct procedure. If I have a problem with water in my house in Huaraz, maybe I'll go to complain to the government, or to some corporation, that they are contaminating me. But first, they are going to find out what is happening in my house with my pipes if the water coming out is bad. We must do the same thing with your water springs. Each one has its own special recharge. To know where the mineral is coming from, it's complicated. More than the mine must be checked. What plants are there? What are the animals nearby, the soil? The correct thing to do is analyze each one, look at its surrounding situation. And the springs always have to be enclosed in pipes or cement [if they are to be used for human consumption]. Your custom is to leave them open, and thousands of things can influence the water…. I propose that the technical committee review all this information, and then review what is happening in the field. In this zone, it can rain a full meter for every square meter. The water recharge varies. That rain looks for its path and it can also go into the subsoil. The mine doesn't make water. Every zone has its own recharge.

A community leader responded in turn: 'Before the mine arrived, the water was suitable to drink, normal. The contaminated parts, those are all close to the mine.… It's easy to analyze. Other parts aren't contaminated.'

In this chapter, I argue that technical science plays an important discursive role in encounters among different actors engaged in environmental vigilance, as described above. Science produces the language and methods used by a variety of important actors, including mine

representatives and state officials, in their assessments of the environmental conditions that affect people. Technical science produces the framing through which industries such as mining are held accountable. Technical expertise is also a basis for asserting that there is no political bias in the decisions, actions, and results being presented. This is evident above when the scientist presenting water testing results reminds the audience that water test points were chosen according to protocol. When other actors, such as village leaders, bring non-technical information to these meetings (such as the color of water), more 'technically-oriented' actors attempt to relate and evaluate that information according to what can be known and documented using technical science. In this way, the discourse of technical science establishes a hierarchically superior set of truths. These truths are then presented as separate from the 'political' concerns or 'opinions' of others. The discourse of technical science also justifies certain roles for actors, such as 'expert' or 'consultant', who can provide apolitical assistance, such as the scientists presenting test results to the committee or the representative of DESA. It also distinguishes other actors as 'stakeholders', or people who have a personal interest in things going a certain way, and a political agenda.

In the meeting above, the Jangas committee decided to follow the course of action suggested by Geraldo, which was to hold a separate meeting of the "technical committee" to analyze the results and define the next course of action. In the case of the Jangas committee, participants are divided into two categories: the technical committee, and the invited participants. The technical committee consists of all the participating institutions present—DESA, DREM, CODISPAS, the Municipality, and Barrick—but not the representatives from the rural communities, who were considered invited participants. Thus, moving the discussion of the water problems into the arena of authority of the technical committee also excluded the campesino leaders from participating in

the next steps. This decision is a stark example of how divisions between technical and non-technical roles and knowledge can discredit and exclude some in ways that could be politically motivated but are not presented as such.

The critical interpretation I make in this chapter about technical knowledge draws on Foucault's interpretation of power/knowledge. According to Foucault, power and knowledge are deeply intertwined and mutually constituted. Power is exercised and justified through forms of knowledge about the world and knowledge is produced through exercises of power. In this chapter, dialogues between lay citizens/promoters and technically trained experts /officials frames some kinds of knowledge as technical, and some kinds of knowledge-holders as experts. Certain kinds of knowledge about the environment is treated as more true than other kinds, leading to the 'depoliticization' of some decisions and solutions (Bryant 2002; Ferguson 1994). Realities which are inherently political—due to dynamics of wealth distribution, resource access, and systems of authority of some over others—are turned into technical matters with specific problems that can be defined and cured by experts.

This chapter examines the discourse of technical science and the actors that wield it. Not all of the actors I describe use or interpret technical science in the same way. Campesinos often experience a sense of deficiency when faced with environmental problems presented in technical terms they do not fully understand, and look to others to explain it (as above, when villagers responded to DESA's representative by saying they didn't know enough about the contamination). Yet, they also distrust and contest these explanations based on their own experience. Promoters are more immersed in technical science due to their training, but do not define themselves as purely technical actors in the same way that DESA's representative and

Barrick's engineer position themselves. In this chapter, I ask critical questions about who claims to represent technical knowledge and the depoliticizing effects of these acts.

In the next section, I give an overview of how this chapter's argument fits into the dissertation's larger aim and how my argument is in conversation with other scholars who have studied similar phenomena in Peru (Himley 2014, Li 2015) as well as discussions about what constitutes environmental subjects more broadly (Haggerty 2007, Cepek 2011). Then, I introduce the contexts of promoter committees, clarifying some of the differences among types of committees. I also explain my data set and analysis approach for this chapter, which focused on deployments of technical science discourse across different contexts where promoters interact with experts. The rest of the chapter centers on the concept of contamination. I compare different understandings of the idea of contamination including 1) a scientific expert view conveyed by engineers in Urpi's workshops 2) an experiential understanding of contamination conveyed by campesino promoters, and 3) a legal approach to defining contamination. Each of these represents a different mechanism for producing truth about contamination. Then, I look at how different views of contamination produce misunderstandings, focusing on the idea of 'control' as it is used by mine officials. Finally, I examine how differently positioned actors draw on these various ideas of contamination in order question each other's' authority. These include interactions which leave campesinos feeling like humiliated *'Indios'* as well as promoters using both technical science and their own perceptions to assert their own unique kind of authority. I conclude by considering how these different uses and understandings of the idea of contamination reflect different ways of being an environmental subject if we consider that technical science is not the only potential content of environmental subjectivity.

Technical Science and Environmental Subjecthood

This chapter examines on-the-ground struggles to assert authority and make one's own version of conciencia central. I focus on how Urpi-trained promoters and members of RRCAA interact with other entities who have an interest in environmental protection, such as local authorities, regional state agencies, untrained villagers, other NGOs, and mine companies. One way that promoters have attempted to influence the environmental protection efforts of mines or state at different levels is through the creation of or participation in local environmental vigilance committees. In the next chapter, I focus on one such committee—the Vicos committee—in detail, including how it was shaped over time through interactions among NGO workers, trained promoters, local campesino community authorities, comuneros, and mine companies. In this chapter, however, I draw on examples from a variety of different committees that came to know during my fieldwork in Ancash, each of which represents a different situation from Vicos. My focus on the discourse of technical science in this chapter allows me to show how particular ways of knowing the environment are put into play, giving rise to particular subject positions. This process leads some actors to become empowered over others in decision-making processes, but is also leads other actors to assert different, non-scientific claims to authority.

As I described in Chapter 3, identifying environmental problems, analyzing their causes and effects, and identifying solutions draw on technocratic approaches to nature that count on science to define what is important about a problem. One of the main motivations that Urpichallay had for their projects training promoters was to empower campesinos to understand environmental science and conduct rudimentary environmental testing themselves. As that chapter points out, campesinos and other lay promoters can be alienated by the knowledge produced by environmental science even in the context of training that supposedly empowers them. They may

not have had enough scientific education to understand the terms through which the state delineates what is and what is not permitted in the case of mining impacts. While promoters, via training, have increased their technical scientific knowledge of how contamination works to some extent, compared to others, this chapter examines how their different interpretations of the environment and varied reactions to scientific discourse used by others, such as mine engineers, fuels disagreements. I consider, therefore, how scientific expertise and its disconnections can discredit and block lay people's attempts to assert their own authoritative knowledge about the state of their resources. This chapter thus looks at promoters in relation to environmental 'experts' in a different context than in Chapter 3, where I focused on experts training others.

The encounters I describe in this chapter are meetings and events that produce dialog among "stakeholders." In this context, experts usually also represent institutions. I therefore unpack how experts and non-experts define terms used during these meetings, and show how different individuals play key roles in identifying courses of action available. Experts play an important role in arbitrating whether environmental problems are 'real' and what should be done about them, even if this role is indirect and framed as recommendations.

The role of expertise in environmental governance frameworks has been addressed by scholars whom point to the multiplicity of epistemologies that are catalyzed through environmental governance relationships, sometimes in ways that directly challenge expert frameworks (Birkenholtz 2009). One example can be found in the work of Mathew Himley (2014), who conducted field research on Pierina's relationships with communities between 2006 and 2012, focusing on three communities and observing the Jangas Committee. He analyzes the committee as an example of "participatory environmental monitoring," a strategy that has become popular due to the assumption that environmental conflicts are, at root, about lack of

transparency. The participatory monitoring practices of the Jangas committee (of which I describe only one aspect, which is the dissemination and explaining of results to multiple stakeholders), is thus an attempted "knowledge fix" which fills in gaps in the (technical) knowledge of stakeholders (Eden 2011, quoted in Himley 2014). However, Himley argues that the Jangas Committee did not produce a cohesive knowledge community. Instead, the committee's practices privileged scientific expertise for understanding water quality, while impacted residents continued to offer their own narrative that contests the one produced by the committee.

While my observations of the Jangas Committee were far more limited than Himley's, the dynamics I observed clearly reflected the process he describes. My use of the example of the Jangas Committee illustrates a broader pattern of tensions over authority around how environmental problems are approached across a more diverse group of committees. The struggles over which understandings of the environment will dominate in various contexts influence how campesino participants and experts engage each other. Further, I argue that within these disparate knowledge "communities," the varied ways people use and understand technical science reflects different ways of being an environmental subject. This disagrees with other scholars who primarily identify environmental subjects through their adoption of science (Cepek 2011; Haggerty 2007). I take seriously the idea that environmental subjects can have different content, and this content can reflect different epistemological assumptions about the world other than scientific ones.

Most actors involved in the environmental committees I observed, including campesino participants, express desire to approach environmental problems from a technical science standpoint in the hopes of resolving the problems they see. The Jangas example illustrates this

dynamic. Technicians then try to get resource users (like the campesino leaders in the Jangas example) to understand the categories of different kinds of resources (e.g., irrigation water versus drinking water), the reasons for observed changes (e.g., why the reservoir turned pale blue), and the different and limited roles of various officials ('we don't tell the mine what to do, we're here to make sure tests are conducted correctly'). The campesino leaders wanted to understand the technical science well enough to know what it meant for them, and to effectively document environmental problems and pursue solutions from the appropriate officials. At the same time, however, technical science discourse ended up alienating campesinos from the authority and roles they desired in this process. There was a clear tension during the meeting when Geraldo and one of the community leaders disagreed about what role Barrick should have in relation to the water problems.

In my cases, experts were most often environmental engineers and scientists employed by state agencies, NGOs, and mines. Being associated with these different institutions suggests different kinds of priorities and alliances. Yet experts typically present their technical knowledge as unbiased. Individual engineers may have different opinions about the legitimacy of campesinos community's accusations of contamination by mines, for example, but appear to look at the situation as one of environmental facts that must be separated from 'politics'. In the case of Jangas, it is possible that Geraldo meant to strategically exclude campesino leaders and insulate the mine against their accusations with his suggestion that the springs needed to be further studied by the technical committee. But, is it also possible that he merely wanted to pursue the problem as he said, according to the 'correct procedure', and he did not see the technical committee as a politically exclusive group so much as the relevant experts best positioned to make a sound plan of action. Although experts may represent their expertise as

impartial, when mines employ them they are easily seen by affected residents as representing 'mining interests.'

The Jangas meeting also illustrates how tensions among different claims to authority and knowledge surface around the issue of defining contamination. There was no question among committee participants that multiple water sources had grave problems. The danger of drinking them was made clear. However, as Geraldo explained, the existence of 'problems' is insufficient evidence that mining is the cause. Later in this chapter, I delve deeply into the question of what contamination is, and discuss how some definitions accomplish more than others when presented as technical science by the appropriately qualified people. There is, however, no single 'true' definition among those who use a technical science perspective, because contamination is a subjective process that experts must weigh in on. Deciding whether something is contamination is thus a political act. However, when engineers claim there is no contamination they present it as a technical fact unrelated to surrounding politics.

Previous research has associated the adoption of scientific views of nature to be indicators of environmental subjectivity (Haggerty 2007); likewise, subjects who fail to be convinced by science have been interpreted as a lack of environmental subjectivity as well as the failure of science to achieve government (Cepek 2011). In departure with these perspectives, I argue that the different ways people use and understand technical science reflects different ways to be an environmental subject. Promoters are taught environmental science tools and understandings of nature, and see science as a helpful tool for documenting contamination. Nonetheless, they do not always interpret contamination the ways that experts (environmental engineers) do. Promoters have different reactions to scientific data, depending on who presents the information

and how. They also attempt to advance their own versions environmental expertise based on their own experiential knowledge, separate from scientifically rigorous testing.

Promoters and their Networks

Promoters trained by Urpi act in a variety of contexts where representatives from civil society, state, and industry attempt to dialog about environmental problems. Some of these are contexts promoters helped create, such as dialog meetings where mine officials and other members of the community participate. As Urpichallay helped promoters they trained start local environmental vigilance committees (similar to the Vicos committee) in other areas of Ancash, promoters have, via their committees and in coordination with local authorities, helped produce such dialogues. Other promoters found other ways to engage (or perhaps confront) mines and state authorities, for example by participating in public meetings held by state offices. Although a few of the promoters being trained by Urpi in 2010 did not come from communities with nearby mining, the clear majority did and as did those who participated in RRCAA. In this chapter, I focus on promoters and mining because it is in these contexts that discourses around science are featured prominently, and tensions over how environmental degradation are understood via science via perceptions are brought out starkly.

In 2008, members of environmental committees from around Ancash created a network organization called the *Red Regional de Comités Ambientales de Ancash* (The Regional Network of Environmental Committees of Ancash, hereafter RRCAA). The group incorporated a wide variety of committees from coastal and mountainous, urban and rural, Spanish-speaking and Quechua-speaking areas. The committees were also organizationally diverse—some were 'multisector' committees like the one in Jangas that integrated state, private, and civil sectors

while others were more contained within campesino community structures and relied on support from NGOs, like the case of Vicos. Some large and well-established committees maintained permanent offices with dedicated employees, while others depended on volunteers and struggled with fluctuating participation. The kinds of funding and support each committee received also varied, as some were funded by mines and others depended on NGOs or local authorities.

My research draws on direct observations and interviews with the actors involved in eight environmental committees from locations in Ancash: Vicos, Huallanca, Huarmey, Aquia, Aija (Queruran), Jangas, Tumpa, Tinyash, and Shilla[78], plus secondary information gathered about eight other committees (via observations, presentations, and publications). These committees reflect different contexts, as some use participatory monitoring strategies, others do not, and different kinds of mines (large or small, as well as different levels of formality) and different kinds of impacts they seek to monitor. I further draw on the activities I observed via RRCAA, where members of all 16 committees interacted during monthly meetings and outreach events they orchestrated.

The data set I analyzed for this chapter includes interviews with 11 RRCAA participants (members of different integrated committees) and all 12 Vicos promoters. I also draw on interviews with additional actors who engaged with RRCAA committees, including mine officials (Toma La Mano, Caudalosa, Antamina, and Pierina), representatives of DESA (1), DREM (1), other regional government officials (3), and other NGOs who worked with committees (2). I also observed 16 committee-related events in Jangas, Huarmey, Huallanca, Aija, Tinyash, and Vicos, where a combination of mine representatives, promoters, community

[78] Two participants from Shilla who hoped to form an environmental committee were undergoing promoter training with Urpi, and one of them began coming to RRCAA meetings. They explained that their committee was 'not yet formed.'

members, state officials, NGO members and other technical experts interacted around environmental issues. Within these contexts I identified when arguments were made with reference to technical science discourses (such as contamination) and practices (such as environmental testing). The concept of contamination emerged in this analysis as a term used by a wide variety of people but not necessarily with the same relationship to technical science methods. While the term references technical science, it was clear that some uses were being made to mean more. Additionally, I coded all instances of the word '*contaminacion'* across all my data to identify different uses and understandings. The conceptual ideas that shape how people understand and use contamination, such as legality, control, experience, and understandings of ecosystems, emerge from my analysis of this concept as it was used in interviews, presentations, and dialogues.

Because of the wide diversity among different environmental committees in RRCAA, some of the contexts I draw from in my data set look quite different from each other. The opening example of the Jangas Committee shows one kind of context where debates about contamination and technical authority emerge—multisector committee meeting where different authorities come together under the premise of being common stakeholders in water quality issues. Another example I discuss in this chapter comes from a workshop organized by one of RRCAA's committees in conjunction with their municipality, during which promoters, mine representatives, state representatives, and NGO advocates each presented in turn around the themes of mining, law, and citizen participation. Despite differences among these contexts, they did exhibit some similarities. One of these is that the discourse of technical science was key in assertions of authority and in the depoliticization of some facts about nature. Further, different understandings of contamination were in use across the contexts where promoters and village

leaders interact with representatives of state organizations, mines, and other municipal or local authorities. I argue that variances in the way the concept of contamination is defined and used by different actors illustrates contentions over the role of technical science in environmental authority. These differences also reflect diverse ways of being environmental subjects.

Understanding Contamination

In the context of mining, different interests attempt to control what counts as pollution, legally and politically. The word *contaminación,* which in Spanish refers to both pollution and contamination, is pertinent to how people in the communities of Ancash affected by mining as well as those engaged in environmental protection activities understand and define conciencia. But their diverse views of contamination are more than just a matter of opinion; they map onto important differences in subject positionalities, and thus different kinds of environmental subjectivity. Differently situated actors thus attempt to wield the concept of contamination as a tool of power/knowledge, for specific ends and with varied degrees of success.

Li (2015) analyzes how pollution (*contaminación*) was "made to matter" in different ways through historically specific practices throughout the history of La Oroya, a smelter town in Central Peru. Corporate monitoring programs and scientific studies that measured toxicity made pollution visible in specific ways and shaped how responsibility was distributed. She approaches pollutants not as "indisputable 'matters of fact,' or objects that exist independently as elements of 'nature,' to be measured and controlled by scientists and engineers," but as "multiple in and of itself…the existence of pollution is dependent on the particular practices that bring it into being" (37). Like Li, I understand pollution to be an object that contains multiplicities, and which must be constantly worked on "to stabilize its shifting identity" (37).

I build from Li's understanding of pollution in this chapter by focusing on the ways that varied understandings of contamination become tools for authority among some and tools for destabilizing the authority of others. In her analysis of the case of La Oroya, Li shows how Doe Run's programs dealing with pollution came to locate pollution in people's bodies. This had the effect of producing programs in response about individualized management, exposure control, and hygiene. Locating pollution in people's bodies had direct outcomes on how pollution was made to 'matter'. Managing pollution came to be about managing people, and directing their self-management.

In my case, one of the ways contamination is understood by promoters is through their experience of it. This locates pollution in their lands, plants, animals and local water sources, but with a different kind of strategy—as a way of asserting a subject position of 'knowing' pollution on a personal level and, thus, being able to speak back to expertise. Promoters asserted their own authority based on their perceptions and personal knowledge, and narrated the effects of pollution on themselves in personal ways. This particular aspect of the multiplicity of pollution challenges a view of pollution (held by others in Peru) as belonging solely to the domain scientific expertise. These disparate views of pollution remain unresolved in dialogues among differently situated actors.

Contamination as Ecological Disequilibrium

In Urpi's workshops, promoters are taught about contamination by environmental engineers (experts) as part their training in basic concepts about the environment. The trainers explain contamination in general terms and prepare promoters to apply this concept to a wide variety of situations. Maura, (described in Chapter 3) for example, taught promoters that contamination

exists when ‘something toxic’ or ‘something harmful’ is introduced into an environment at a concentration that ‘will cause disequilibrium.’ This could be something ‘foreign’ or ‘an original element, in high levels.’ Previous workshops had been taught by Isaac, an environmental engineer who had worked with Urpi since APS, training promoters in Vicos as well as elsewhere. Isaac, an engineer in his 30s, spoke Quechua as a first language and sometimes used Quechua during workshops, although the technical materials were presented in Spanish. His training materials defined contamination as “Incorporation of an unnatural element or substance to a médium,” or, “incorporation of elements or substances, even natural ones, in a volume that cannot be assimilated by the environment.[79]”

Both trainers acknowledged a difference between ‘naturally occurring’ contamination and contamination caused by something ‘foreign.’ The idea of natural contamination came up frequently in relation to mining and high-altitude water sources because the highly mineralized terrain of the Cordierra causes minerals to leech into springs or, via rainwater runoff, into rivers even without direct human intervention. The retreat of glaciers makes this problem worse because more mineral is exposed to the elements. The past several decades of dramatic deglaciation and increasing mining have meant that metal contents of water is increasing in many places. The naturally-occurring contamination can be difficult to distinguish from that which is caused by mining. As Geraldo explained when describing how each spring has its own recharge, it is not always clear how metal contaminants end up in groundwater. Urpi trains promoters to see both man-made and ‘natural’ processes as capable of producing contamination, thus acknowledging that some things campesinos perceive as contamination might not be caused by mine or direct human activity at all.

[79] From training module “*conceptos sobre el ambiente*” by Ivan Juan Montes Mallqui

The above definitions also imply a requirement for expertise. For example, Mariana notes that toxic and harmful substances are contamination when their 'concentration' reaches a level that will 'cause disequilibrium'. Isaac's definition references a 'volume' of substances that 'cannot be assimilated by the environment'. These definitions thus conjure a threshold point that is vaguely defined. This raises questions of interpretation that must be resolved via some kind of expertise. At what point has a substance reached a level that is too much? Who judges whether or not the environment has been 'disrupted'? Depending on how one seeks to answer these questions, the process could be subjective.

Following training, Promoters' own understandings of contamination did not invoke the same need for expertise as did the definitions of the engineers that trained them. Rather, trained promoters tended to focus on the more basic idea that contamination produces changes in an environment, and that changes in the environment are caused by contamination. Here are two definitions of contamination given by Vicos promoters during interviews that reflect this tendency:

> RK: What does contamination mean to you?
> Leonardo: It alters. That's what I learned in training [Interview 2010].[80]

> Roland: Contamination of something in its original state is to change it from one thing to another [Interview 2010].[81]

Both Roland and Leonardo had completed promoter training through Urpi, and had been testing water in Vicos for several years previously. However, they defined contamination in a straightforward way, as a simple 'altering' or 'change'. What had been dropped from their definitions, in comparison to those used by their trainers, is the idea that this alteration must

[80] *Altera, eso aprendí en la capacitación.*
[81] *Contaminación de su estado original es cambio una por otra. entonces eso es contaminación mismo.*

exceed a specific limit in order to count as contamination. By equating contamination with alterations, no additional expertise is needed to identify contamination. Rather, anyone can observe or document change and diagnose contamination.

Promoter training covers many different methods and standards for making judgments about whether contamination has occurred. But it doesn't provide a definite answer about which one is correct. Rather, it references some indicators that promoters can perceive—aquatic life in the river, for example—as well as indicators that experts must determine. Promoters learn that fish will begin to die if water's oxygen content drops below 4 mg/l, and that the health of the fish themselves can function as a bioindicator of water problems. They learn that Peru's legal limits for heavy metals is varied for different classes of water, but they also learn about water standards provided by the World Health Organization and from other developed countries. Promoters learn that there are a wide variety of types of contamination, not just of soil, water, and air, but also that things like light and sound can be contamination. This information indicates a multiplicity around contamination; there are different things that can become contaminated, different ways of measuring contamination, and different standards for gauging contamination. As promoters are trained they are exposed to the idea that contamination can be perceived in a variety of ways, not only via technical testing but via bioindicators that they themselves can observe. Further, they learn that technical science data can be interpreted in different ways, because countries, for example, have a range of maximum limits on dangerous substances. When two scientists from Canada visited Vicos with Urpichallay, Vicos promoters produced a laboratory test report of their drinking water source and asked the Canadian scholars if the water was acceptable for drinking according to Canadian standards, because they were not confident in the assessments given by Peruvian authorities. The Canadian scientist responded by commenting on the high

levels of bacteria and metals that she thought were worrisome, reinforcing the Vicos promoters' ideas that assessments of contamination could be subject to different interpretations. Thus, even though promoters learn new technical ways for measuring and understanding the environment, they do not see these methods as producing uncontestable truths about contamination. Vicos promoters turned to a new set of experts when local expert interpretations of their water's potential contamination did not satisfy them.

Training promoters to understand contamination is part of Urpi's broader attempt to shape subjectivity. Training promoters means making environmental subjects that are well-informed about a variety of different kinds of environmental problems, from those in their own backyards to global ones. Further, training requires that they link their understandings of these problems to a sense of responsibility (conciencia) that implies their own adoption of new practices and actions to mitigate and prevent contamination. While rural farmers may be readily concerned about the contamination they perceive coming from large industries like mines, Hugo (and others at Urpi) hopes to inspire a conciencia that is farther reaching, encompassing not only mine impacts but also the impacts individuals (including farmers) have on their environment. Hugo's answer to my question of 'what is contamination?' during our interview further captures this connection between contamination and this broader idea of conciencia that Urpi hopes to inspire:

> RK: What is contamination, in your view?
> Hugo: Well, it is an alteration of our space, of our environment, with elements that are not typical of that place, that can be toxic or simply visual. Or to go from extreme to extreme, that can generate very strong impacts, as well as insignificant impacts but still they are contamination. If they incorporate elements that are foreign to the natural environment, it generates a contamination, which I must to mitigate. I must take actions that mitigate the impact. It is the same as consuming a food product, a canned one. If I throw that to the ground I leave it there, it generates contamination. Then to mitigate that, I put it in its place or bury it or I take it with me. Thus, it is necessary that there is a consciousness that I own my trash and that it is my responsibility to people in general…. For example, a mining

> company that was previously not responsible for its waste is now obligated by law, but for people, who obligates them? [Transcribed interview 2011][82]

Hugo's comments on contamination parallel the Vicos promoters quoted above in the sense that contamination is understood as an alteration due to elements that are from elsewhere, with impacts being big or small. Further, Hugo did not emphasize the existence of a specific level that must be surpassed in order to constitute true contamination. What he emphasizes, instead, is a sense of responsibility around contamination that connects it to contaminators (people/entities who do not manage their own waste). He called attention to a wide spectrum of behaviors, large and small, including a hypothetical individual who generates waste in the form of a can, and a hypothetical mine must take care of its discards. This view of contamination frames pollution as everyone's responsibility, and it is clearly connected to one's conciencia, as he says: "I have to mitigate, I have to take actions that mitigate the impact… it is necessary that there is a consciousness that I own my trash and that it is my responsibility to people in general." Rural farmers, residents, miners, and other industries have different potential impacts on the environment, but in all cases, 'conciencia' is required for actors to recognize their impacts and take the actions necessary to mitigate them. This perspective is consistent with the goal of creating environmental promoters as environmental subjects who will hold themselves, their

[82] "*Bueno es una alteración de nuestro espacio, de nuestro medio ambiente con elementos que no son propios del lugar, que puede ser tóxicos o simplemente visuales o sea puede ir de extremo a extremo, que pueden generar impactos muy fuertes, como también impactos poco significativos pero en si son contaminación, entonces se incorpora elementos que son ajenos al entorno natural, genera una contaminación, que yo tengo que mitigar, tengo que ejecutar acciones que mitiguen un impacto, es el mismo hecho de consumir un producto alimenticio una conserva un enlatado, si arrojo eso al suelo lo dejo ahí, genera una contaminación, entonces como mitigo eso o lo pongo en un lugar o lo entierro o me lo llevo, entonces es necesario que haiga [haya] conciencia de lo que yo soy dueño de mi basura y que es mi responsabilidad con la gente por lo general, y eso se va diluyendo a medida que digamos la responsabilidad se va achicando, por ejemplo una empresa minera anteriormente no se hacía responsable de sus desechos ahora la ley lo obliga pero a la gente quien lo obliga?"*

fellow villagers, and nearby mines (or other industries) to higher standards of environmental responsibility.

Contamination as Experience

Most promoters from around Ancash that Urpi trains also experience first-hand what they call 'being contaminated.' Being contaminated refers to the alteration or damage of one's own community, landscape, or essential resources thus affecting one's own person and livelihood. Being contaminated constitutes a specific subject position from which people interpret the possibilities offered by technical terms and environmental science in a personal way. Since promoters in Urpi's workshops are usually from communities affected by mining, they associate being contaminated with the impacts of mines. Here are some of the statements given by promoters during interviews that reflect this subject positioning in their response to my question, "What is contamination?"

> Patricio: A substance that is bad for all living things. [Interview 2010][83]

> Teofilo: It's a cause of disaster where we live, where we reside, all of us. To be killing us by itself. [Interview 2010][84]

What promoters understand as contamination reflects their own subject positions as people who live and experience the reality of 'being contaminated'. Both Patricio and Teofilo are campesinos who sought training from Urpi out of concern over mining contamination. Teofilo, who was introduced in Chapter 3, sought training due to impacts from a small gold mine affecting his community as well as another mine that was in an exploratory stage nearby. Teofilo

[83] *Una sustancia mal para todos los seres vivos.*
[84] *Es una causa de desastre al lugar donde vivimos, donde habitamos todos nosotros. Estar matándonos por si mismo*

attributed a reduction in agricultural products in his community to mine contamination, and remarked that during rainy seasons, uncovered pilings were unprotected, causing mineralized water to run into the watershed, thus "bathing" both people and crops with polluted water. Like other farmers who feel that their villages have been negatively impacted by contamination, his definition emphasized how lifeways are affected. Contamination is "bad for all living things," it is even a "cause of disaster" that is "killing us."

Patricio is from a small campesino settlement called Queruran in the province of Aija, and is the president of an environmental committee formed with collaboration from irrigation groups across campesino settlements near the Mallki river following Urpi's training. When Urpichallay gave a presentation in the municipality of Aija offering an opportunity to train promoters, residents from campesino areas close to informal mines were the most eager to participate. Five mines were located nearby and only one had recently begun a process of formalization. Patricio explained that the mines caused a variety of kinds of contamination: water, dust from cars that settles on pastures and houses, mining discards that were left out, gases that polluted the air, causing animals to get sick. Contamination was something that he and his fellow villagers experienced all around them.

Another narrative of 'being contaminated' comes from Francisco, who had been president of the Tinyash irrigation committee since 2003. Tinyash is a township that sits right at the edge of Barrick's operations, and one of the impacted communities that is a member of the Jangas committee described earlier. But in 2010 Tinyash residents were forming their own committee and, with assistance from Urpichallay, testing water independently of the Jangas committee. Back in 2003, Francisco had not been trained by Urpi yet but remembered seeking out DESA and DREM officials to conduct tests of water. 'Because the water is pure acid, oxidized. The

plants die.' He also went to Jangas to get training (*recibir capacitacion)* and during that meeting, and engineer explained to them what contamination was:

> He said that the water was considered suitable for human consumption when it had 0.01 [mg/L of lead[85]], but when it had 0.02, it was no longer suitable for consumption. I asked: if we were to consume this water, what would happen? He told me No, it will harm humans. I said, so then it will harm animals too, because they are like us, and our plants too, because they live on water as well. He said, I'm not prepared [to respond to that], go to the ministry of agriculture for an answer.[86]

Francisco's encounter with the engineer's technical science perspective was clearly less than satisfactory. It did not make sense that water that had dangerous substances harmful to people would be considered safe for giving to livestock or for irrigating. Further, when challenged on his claim, the engineer referred Francisco to a different expert (the Ministry of Agriculture) to get accurate information about the impacts of this water on plants and animals. This further eroded Francisco's confidence in the engineer's knowledge.

Francisco's knowledge of his town's waters comes from his experiences with it. He described to me how the water presented with problems:

> At one point a fluid came in the water. The plants died, the canals turned yellowish… as president of water vigilance, I went to cover our reservoir. And there was a liquid, like fat. I called Nestor saying, come with your camera![87]

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[85] The classification of water is based on maximum allowed mg/L for each contaminant. Although Francisco did not clarify which substance in this case was being described by the engineer, this concentration could have applied to any number of potential contaminants associated with mining, and was most likely lead or arsenic, both of which were present in Tinyash water. Lead and Arsenic were limited to 0.01 mg/L for class A1 drinking water according to state norms in 2008.

[86] *[he said] que el agua era considerado apto para consumo humano cuando tiene 0.01 [mg/L of lead], pero cuando tiene 0.02, ya no era para consumo humano. Yo pregunte: si consumimos esa agua, que pasaría? Me dijo que no, malogra a la humanidad. Yo dije, entonces, a animales también malogra porque son como nosotros, y las plantas también, porque viven de agua también. El dijo, no estoy preparado, vaya a la ministerio de agricultura para tener respuesta.*

[87] *[at one point] vino un líquido en el agua. Las plantas murieron, las canales han puesto amarillento…como presidente de vigilancia del agua, me fui a tapar nuestro reservorio. Y había un líquido, como manteca. Llame a [Nestor] diciendo 'ven con tu camera'.*

Yellow and greasy water were clear indications that something was wrong, followed by the death of plants. Walking through Tinyash, Francisco showed me part of an irrigation canal where the water was orange and smells of sulfur. 'It contains iron,' he said, 'but only recently comes out rusty. Look, it has grease,' (and he points to some places in the canal the water has an oily sheen on top, Figure 4). Just across the canal is a tree nursery where Tinyash residents have been raising eucalypus and pine saplings for planting. Some of the saplings appear to be doing much better than others. Francisco points to a row of pine trees where some of the plants are small and stunted: 'we irrigated with the canal water, and the plants got sick. Now we water the plants with rainwater. And these (new plants) are catching up with the other plants.' Indeed, the saplings in front right section, which were planted later, are catching up to the back row, which looks stunted (Figure 5). 'Animals drink the canal water too,' he adds.

Experiencing contamination emerges from lived experiences of changes in the landscape. Campesinos, as farmers, are already vigilant in their observations about many things in their environment, including water, plants, animal behavior and health, and weather. When their quotidian practices lead them to observe changes in these areas, these alterations of the environment can be interpreted as contamination when the individual is aware that such a category exists. Promoters, through their training, learn that certain kinds of human activity produce symptoms of contamination. Then, as they observe these symptoms in their surroundings, these symptoms, plus the presence of mining, become evidence of mining contamination. This pattern is evident in the Jangas example, as campesino leaders linked the increasing heavy metals in water sources to the mine's presence. The analysis applied by Francisco also straightforwardly links observed changes to the presence of mining. The co-

occurrence of Barrick's operation and changes in the water is enough evidence for contamination.

Figure 4: Canal Water in Tinyash

Figure 5: Saplings in the Tinyash Nursery

Contamination as Legality

So far I have contrasted contamination as 'environmental changes' identified through lived experience with contamination as a more limited subcategory of changes that must be technically assessed with expertise to determine whether a 'threshold' has been passed. This section looks at another definition of contamination that is limited, and closely linked to technical assessments. In the definitions given by engineers in the previous sections, politics are erased from assessments of technical contamination because what is required is an understanding of an ecosystem, which either can or cannot accommodate a certain level of foreign elements. However, in cases where communities, mines, state and NGOs are engaged in concerns over contamination, it is a politically loaded concept. Whether 'contamination' has occurred has legal implications for mines, and state norms are part of the truth-producing apparatus that distinguish real contamination from mere 'impacts.' Thus, in practice, it is not the health of an 'ecosystem' that is assessed via expertise to determine contamination, but rather 'maximum permitted levels' of different substances, based on a water classification system.

Further, in the above sections I have compared the perspectives of campesino farmers with those of engineers. This is also a simplification of dynamics, although it does capture a reoccurring pattern. Yet, it is not only campesinos farmers who participate in RRCAA and Urpi trainings. Some participants are professionals, university students, or have other kinds of qualifications that layer on top of campesino identities or that separate these actors from the experiences of campesinos more dramatically. In short, participants in RRCAA include other kinds of situated subjectivities.

For example, one of RRCAA's integrated committees is *Comité de Monitoreo, Vigilancia y Fiscalizacion Ambiental de Huarmey* (hereafter, the Huarmey committee). Huarmey is a coastal

town with a port operated by Antamina, at which they transfer their minerals to freight ships. Ore extracted high in the mountains are transported to the coast via a pipeline in a slurry form, and at Huarmey's port they are loaded onto vessels. When Antamina began installing their wharf, Huarmey residents (who rely primarily on fishing and agriculture for their livelihoods) protested en masse, closing down the pan-american highway which runs through Huarmey. Because of the social unrest, the Peruvian government, working with specific ministries, passed a national resolution in 2001 which created a multisector commission consisting of representatives from various ministries as well as representatives of civil society (Huarmey's university, the municipality, hospital, the church, and fishers' associations, etc.). The commission, which met between August and November of 2001, created a set of recommendations which included the formation of a permanent committee to audit and oversee environmental concerns.

The committee's main activity is environmental testing, focused on the watershed above Huarmey and around Antamina's operations at the port. The committee conducts parallel monitoring of ocean and groundwater as well as other resources. All testing is done at the same time as Antamina's own testing, although samples are sent to different labs. Members of the public can observe the testing to ensure transparency. Results from both sets of tests are then shared with the public and any problems or discrepancies found are addressed openly. The committee has successfully identified environmental problems caused by Antamina's operations and they were able to convince the mine to change some of it its practices and increase its own monitoring protocol as a result.

Elena is president of the Huarmey committee, and she is a lawyer. When the committee first formed, Elena had a position in the municipality of Huarmey and became the municipality's representative on the Huarmey Committee. She became president of the committee, a position

she continued to hold through 2011. Elena lives in Huarmey, but she's originally from La Merced, a district high in the Mountains within the Province of Aija. There, family members farm and send bags of potatoes to her home in Huarmey.

Huarmey's committee, like the Jangas committee, is premised on cooperation among different stakeholders (residents, state officials, mine operators, other public institutions) towards a common goal of identifying environmental problems and their solutions. Elena works with environmental technicians that the committee hired to take water samples, interpret results, and explain them to the public. During RRCAA events, Elena emphasized the need to dialog with mines towards mutually beneficial solutions that are sustainable and maintain good relations while addressing environmental concerns. When I asked Elena for her thoughts on Antamina's contamination, her response revealed a different idea of contamination than the promoters quoted above:

> "We can't speak of contamination yet. Presence, perhaps, of some metals that are inside the mine operations, but I believe that in order to talk about contamination, we would need results that exceed the maximum permitted limits. So far we don't have that. But yes, there is presence of metals, even in increasing levels."
> [Interview with Elena, 2010][88]

Elena's explanation reveals a meaning of contamination defined by legal limits and norms and evaluated through strict technical measures. Saying a mine has caused contamination is an accusation, whether it is made through official means (as in the case of a legal denouncement) or if it is simply made verbally by people who believe they are affected. In these cases, arbitrating whether contamination has occurred hinges on determining whether the maximum limits allowed for certain substances have been passed. Precise tests must be conducted to show the

[88] *"No podemos hablar de contaminación todavía. Presencia, de repente, de algunos metales que hay adentro de las operaciones, pero creo que para hablar de contaminación tendríamos que tener resultados que sobrepasen los limites máximos permisibles. Todavía eso no hay. Pero si, hay presencia de metales, incluso en forma ascendente."*

concentrations of different specific substances. These results must then be compared with acceptable legal limits as defined by Peruvian law for those substances and considering the class of resource that is being evaluated. Mere changes are not sufficient proof of contamination, even if those changes have been caused by mining and even if the presence of metals in the water has risen according to the tests. Contamination has not occurred in Huarmey if the committee's tests around Antamina's operations show the presence of metals but concentrations have not passed maximum limits. This definition of contamination is applied in relation to mining by mine operators, state agents, as well as environmental engineers in some contexts.

Thus, contamination as legality has the following implications. First, the difference between harmless impacts and disequilibrium comes to be determined via legal limits. Contamination, when defined as the cause of 'disequilibrium' in an ecosystem, is vague and potentially subjective in interpretation. It suggests room for negotiation; it suggests a scientific mode of expert authority. On the other hand, legal limits are much easier to work with because they are straightforward, they are easily measured, they are quantitative. They transform the question of contamination into a yes or no scenario; there are no shades of gray, and the actual functioning of the ecosystem in question is no longer at the center of the debate.

Misunderstandings around Contamination

Mine technicians and residents reflect differently situated subjectivities. While residents themselves are diverse, they contrast with mine technicians in some ways because their differences are reflected in space. Mine officials are concerned about impacts coming from their operations, and whether these meet government standards. Nearby residents are concerned with impacts that flow *to* them, sometimes literally. This adds another layer of complexity in what

contamination means to people because of all the conditions that cause minerals to leech into waters. Retreating glaciers can change water system dynamics and leave more rock exposed to the elements. Abandoned mines that were never held to any environmental standard can also contribute. Informal or illegal mines operate outside state surveillance completely. And, multiple mines in an area can have a combined impact that causes river water to exceed legal limits even if individual mines meet minimum standards. Yet, for the residents affected, the result is clearly contamination. These are reasons why these actors understand, perceive, and define contamination differently. These variables also make it difficult to 'prove' that a mine is responsible for an environmental problem—even among actors that rely on environmental science and technical methodology to analyze the environment, agreement that something is contamination is not straightforward. NGOs like Urpi try to help communities assemble facts to back up their perceptions by paying for laboratory tests of water that can be shown to mine and state representatives. Yet, Hugo relayed that mine officials often still found reasons to reject these studies: 'Every time evidence is presented that they are to blame, they add more requirements.' In the next section, I describe some of the ways mine officials present their own ideas of contamination, including what it is and what it is not, and what their role with respect to it should be. Then, I consider how all these different interpretations of contamination can all come together to create a foundation for misunderstandings.

Control

Mine representatives whom I heard speak in public events or in interviews described contamination as a 'lack of control.' Mine representatives I interviewed consistently claimed that their operations did not contaminate and described their control measures. When pressed, they

often pointed out that 'of course' there were impacts from their operations, but that these were not 'contamination.' For example, when I interviewed representatives of Caudolosa and Toma La Mano, the two largest mine operations that were legally operating in the Honda Valley above Vicos, they emphasized their legal legitimacy and their efforts to control impacts. In what follows, I quote from my notes taken during interviews with individuals, Tito, The Superintendent Engineer of Toma La Mano, and Esteban, Chief of Human Resources of Caudolosa. Both individuals are mid-level mine officials in Peruvian-owned mines who negotiate with Vicosinos during conflicts on behalf of these mines:

> Tito: Toma La Mano is totally conventional. The contamination that we have, it's not relevant. It's controlled.
> RK: What does contamination mean to you?
> Tito: "To alter the equilibrium of the environment in its components: flora, fauna, hydrology."
> RK: And according to that definition, there is no contamination?
> Tito: There is impact, but it's controlled.
> [interview with Tito][89]

> Esteban: We don't have a mineral processing plant on site. If we did, that would need more supervision. But the issue of contamination isn't severe. It's easily manageable. There are no tailings. The problem is mostly the dust that the trucks raise.
> [interview with Esteban][90]

Later in the interview, I asked Esteban again for information about the mine's environmental impacts:

> RK: What are the environmental impacts of the mine?

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[89] *Tito: Toma la mano es totalmente convencional. La contaminación que tenemos, no es relevante. Está controlado.*
RK: Que quiere decir contaminación para usted?
Tito: "Alterar el equilibrio del Medio Ambiente en sus componentes: flora, fauna, hidrológico"
RK: Y de ese definición, no hay contaminación?
Tito: Hay impacto, pero está controlado.

[90] *No tenemos planta [mineral processing plant on site]. Si sí, se necesitaría más supervisión. Pero el tema de contaminación no es muy grave. Es manejable fácilmente. No hay relave [pilings]. El problema es mayormente el polvo que levanta los carros.*

Esteban: The dust, which we are mitigating. There isn't another. On the topic of water, all of the waste water has been treated.
RK: It doesn't have mineral in it? They (Vicosinos) say that the Vicos river has a lot of mineral in it.
Esteban: Yes it does. It has natural minerals, not necessarily from the mine. A lot of springwater comes like that, with minerals.
RK: But they say that 10, 20 years ago, the rivers were not like this. There were trout, and now they are worse. And they say it is because of the mines.
Esteban: But, do they have any study that demonstrates that?
RK: No, it's their perception.
Esteban: Then it's their perception, nothing more.
RK: It's not your perception?
Esteban: No. We don't have a (processing) plant.[91]

Representatives of the mines acknowledged that they caused "impacts" in the valley above Vicos, but eschewed the idea this constituted contamination. Both emphasized that the impacts caused were "controlled" and were minimal and there "not relevant." Impacts are not the same as contamination. Of course, mining causes impacts; to demand otherwise would be unreasonable. Legally, mines can cause impacts up to a certain point, and ostensibly this cut-off line is intended to legally mark the difference between minimal damage and significant disturbance of the ecosystem. This definition of contamination, like Elena's, limits what can be called contamination. Contamination is only present if impacts that have been demonstrated to exceeded a specified level, and if the cause of that elevation is the mining company's activities.

[91] *RK: Cuales son los impactos ambientales en la mina?*
Esteban: el polvo, que están mitigando. No hay otro. En el tema de aguas, los desagües se han tratado todos...
RK: No tienen mineral? Ellos dicen que el rio Vicos tiene mucha mineral.
Esteban: Si tiene. Tiene minerales naturales, no necesariamente de la mina. Muchas puquiales vienen así, con minerales.
RK: Pero ellos dicen que 10, 20 años antes, los ríos no estaban asi. Habia truchas, y ahora estan peores. Y dicen que es por las minas.
Esteban: pero, ellos tienen algún estudio que muestra eso?
RK: No. Es su percepción.
Esteban: Entonces es su percepción nada mas
RK: No es el percepción de usted?
Esteban: No. No tenemos planta.

The interview with Esteban further illustrates how scientific measurements are necessary "facts" that verify whether or not something is contamination. When I questioned the engineer's claim that there was no contamination, referencing what Vicosinos had told me about how the river had degraded over time in correlation with the mining, Esteban asked if there was a study that demonstrated that degradation of the river had been caused by mining. When I said no, he dismissed the Vicosino claims as mere perceptions. Perceptions are not facts, but opinions; rural farmers might think that the mines contaminate, but without evidence that is scientifically rigorous and technically measured that quantifies their concerns, these perceptions can be easily dismissed, and they often are.

Thus, there is no reason to think that what the mine operators consider 'significant' or 'relevant' environmental impacts will coincide with what promoters see as significant. This 'significance' is defined by law, a law that is supposed to mark the difference between an impact that the ecosystem can manage or recover from, and one it cannot. This potential conflation between legal norms and the actual functioning of ecosystems creates problems because many residents and mine operators use different standards for judging contamination. The landscape does not care what the law says; impacts that are below the maximum limits can cause problems for residents anyway.

While promoters learn about contamination from Urpi, NGOs are not the only ones that try to educate campesinos. Some mines also offer training and try to help villagers 'understand' that contamination cannot just be whatever they think. They explain how mines control impacts and use technical measures and legal limits to ensure that their impacts are minimal. These are, therefore, part of the understandings of contamination that circulate in communities targeted for improved conciencia. For example, in the interviews I conducted with a random sample of Vicos

comuneros, one comuenro explained that he had learned about contamination during a workshop given by Pierina officials at the mine Barrick: “In the mine there is contamination. Because there is no control. When they control it, there’s none. Without control, there is.”[92] His explanation that contamination is what occurs when mines do not ‘control’ their impact reflects what mining representatives tried to convey in interviews with me as well as meetings and training sessions where the tried to teach others; but this idea of ‘control’ can be misleading. The idea that contamination is caused by a lack of mining control also oversimplifies things because it makes contamination seem like a switch the mine can turn off and on, and this may contribute to misunderstandings. Further, these efforts to encourage resource users to redefine their idea of contamination in ways that conform with mine practices and state measures do not address the underlying conflict—whether you call it contamination or impacts, changes brought about due to mining (or in correlation with mining) create unacceptable situations for resource users because of how they use the resources. Rural villagers around Barrick depended on drinking water that had not been classified as drinking water and that has now become unusable even for irrigation.

These different uses of the word contamination fuel misunderstandings and sow seeds of potential conflict. Nowhere was this more striking than during an event I attended in Aija where a company called Lincuna SAC held an *audencia publica*, a public meeting during which they presented plans for expanding mining operations above the town of Aija. Mines are legally required to hold such meetings when they propose new operations, and Lincuna proposed to expand exploitation from 350 to 3000 tons of mineral daily. The amplification of nearly 10x the current rate was a significant increase in mining activity and would no doubt impact Aija and the surrounding areas in multiple ways, not only through the mining practices but also increased

[92] interview with Vicosino comunero of Puncucoral, age 45

employment (which could draw new populations to the area) and traffic. The mines that Lincuna acquired rights to operate had histories of decades of informal exploitation. From the perspective of the mine operators, taking over these mines and establishing legal operations that would comply with current environmental norms was a kind of mitigation, a "cleaning up" so to speak, of the negligent operations that existed prior. During the meeting, mine representatives presented the Environmental Impacts Study, emphasizing better control and transparency through practices such as participatory monitoring. Representatives promised not to repeat the problems of the previous operations, assured the audience that avoiding contamination was their top priority, and recognized that the Aija residents were heavily dependent on farming and livestock. They used phrases like '*lucha contra la contaminacion*' (fight against contamination) and '*respetar el medio ambiente*' (respect the environment) and explained they were dedicated to 'clean' mining 'not just because it's the law, but because it is part of our policy.' Regarding the use of water, they explained '*vamos utilizar un sistema que no va permetir ningun tipo de contaminacion*' (We are going to use a system that will not permit any type of contamination).

I did not obtain a critical analysis of the mine's Environmental Impacts Study, so I cannot comment on the kind of technologies Lincuna planned to use or how effectively the proposed methods would control any environmental impact. That places me in the same category of awareness as most of the Aija residents at the meeting. Like me, they heard what sounded like promises to not contaminate. This is dangerous setup. Even if Lincuna seamlessly adheres to its EIA and conforms perfectly to state environmental control requirements without failure or accidents, Aija residents will likely have a different expectation for what 'no contamination' actually means. The increased activity of mining under Lincuna will produce noticeable effects, and residents could easily feel betrayed or lied to. All the worse if the real impacts on their own

lives and livelihoods are discounted by miners and officials as not being "real" contamination because tests fall below the maximum levels permitted.

Expertise and Negotiations of Authority

There are some key ways that technical science is used differently by promoters and mine officials to assert or challenge authority. First, because mine officials typically have greater technical backgrounds, they use their expertise to directly challenge perceived claims about contamination. They can do this subtly, as when Geraldo argued that more research was needed to understand why certain springs were changing. However, it can also come in the form of intimidation or assertions of other kinds of social hierarchy. In what follows, I describe an example from Tinyash.

As previously described, members of Tinyash were working with Urpi during my fieldwork to create their own environmental committee, apart from the Jangas committee that opened this chapter. Tinyash had severe problems with their water. Tests that Urpi sent to a nearby lab showed dangerous amounts of lead and arsenic in water used for drinking, including water used by the local school. Conflicts with Barrick were complicated and ongoing, and had been for years. Barrick had social responsibility programs that assisted Tinyash each year, but moving forward to find solutions for the water problems was proving incredibly difficult. One of the dynamics of the struggle between residents and mine representatives center around technical expertise. For example, when a professor asked Tinyash residents if they were ever intimidated by Barrick officials, one of the committee members answered:

> Yes, there are humiliations. When we go to complain about the water, they say, "how do you know?" Or, when we can see that the water is turbid with earth, completely black, they say "it's clean water". They humble us, since we aren't trained (*no temenos capacitación*), we're people of the country (*personas del campo*), and they are professional

> people of a high level. In the moment, we get quiet, feel doubts…. But, they installed that potable water catchment, and it's bad. It brings ailments to everyone." [fieldnotes 2011][93]

Prior to getting lab tests conducted with Urpichallay's help, residents had to rely on their perceptions of changes in resources to claim that Barrick was contaminating them. When they tried to confront mine officials with evidence, such as stunted trees or yellowish water, the mine's engineers used their technical expertise to discount the villagers' perceptions of problems. Tinyash residents thus felt "humiliated" when talking to Barrick engineers, and began to doubt their perceptions.

When Urpi engineers presented the results of water testing to Tinyash, the results revealed a major drinking water source had high levels of lead, mercury, and arsenic in levels, making it unfit for human consumption or for irrigation. Residents described the series of barriers the faced in trying to receive clear answers about their water. Barrick scientists tested the water without transparency, and when residents went to obtain testing results from local health offices, they suffered long waits for responses from state officials to their inquiries. They distrusted most laboratories, fearing them to be allied with mines. One resident summarized their experiences with Barrick's officials by saying "*Indios no saben que es contaminacion. Indios no tienen plata para defender. Asi piensa la empresa transnacional*" (Indians don't know what contamination is. Indians don't have money to defend themselves. That's how the transnational company thinks). The sense that Barrick engineers dismissed them as "Indios" (poor/uneducated) contributed to their sense that they were being abused.

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[93] *Sí, hay humillaciones. Cuando vamos a quejar sobre el agua, ellos dicen "como sabes?" O se ve agua que esta túrbido, con tierra, negro todo, dicen "es agua limpio". Nos humilla, como no tenemos capacitación, somos personas del campo, y ellos son personas profesionales, de alta nivel. En el momento, callemos, sentimos dudas….Pero, ellos han instalado esa agua potable, y es mal! Trae malestar a todos.*

As part of a community development program, Barrick engineers had installed water catchments, and now tests were showing that these installations were poorly constructed and unsuitable for drinking. Tinyash promoters' doubts about the expertise of the mine employees was deepening. The quote above thus ends with the promoter calling into question the expertise of the mine engineers, whose technical knowledge apparently could not be trusted. This turn of events highlights a second use of technical knowledge in negotiations of authority—promoters using technical science to challenge engineers' expertise. It was through testing that Tinyash residents recognized that Barrick's installation of water catchments turned out to be poorly done, and actually contributed to bringing more problems with the water. Either the expertise of Barrick engineers was flawed, or selectively applied. Promoters are well aware of the political agendas sometimes held by experts and sometimes seek to use technical science as a way to double-check the claims of experts whose political alliances they do not trust.

Although training allows promoters to begin to better evaluate resources using technical science, promoters also attempt to assert environmental authority through their own perceptions of the environment. When Huallanca's committee organized an all-day workshop for citizens and committees, I attended with other members of RRCAA. The presenters that day included members of state organizations, such as DREM, the ministry of the environment, President of Huallanca's environmental committee (Alan, introduced in Chapter 4), and the Environmental Manager of Antamina, whom I will call Alfonso.

Alfonso was a civil engineer with an MBA and MS; he had worked for Antamina for several years after having worked at other mines as an engineer. His presentation at the workshop explained how Antamina had come to work with the city of Huarmey, establishing a vigilance committee that operated apart from the mine and worked cooperatively with state agents and

civil society stakeholders to monitor resources potentially affected by Antamina. Alfonso acknowledged that some contamination was inevitable during the mine's operations, but that the goal was to manage and control it. The Huarmey committee was successful in this regard, he said, because they stuck to a "technical role." Many groups with different interests participated in the committee, but the function of the committee was monitoring and vigilance; 'We have confidence in equipment, analysis, and evaluation,' he said.

The technical process he described involved the authority of state officials, who he argues were key in evaluating whether 'worries' (*preocupaciones*) were valid, via lab tests and analysis. You have the right to make a denouncement, he explained, and a competent person will verify it. '*Vale la intervención de personas técnicas* (The intervention of technicians is valuable)' he said. He ended the presentation by encouraging everyone to believe in the validity of authorities and in the state's role. But the committee's role was to '*asegurar que el estado cumple su rol* (ensure that the state complies with its role).' Concerned citizens and environmental committees were, in his presentation, ultimately a mechanism for the state to successfully supervise mines and environmental health.

Members of RRCAA had some criticisms of this presentation, because they did not see their role in this way, and they resented being told that state officials would do a better job at evaluating contamination than they would. One audience member brought up the concerns about corruption, and asserted that campesino communities were better at protecting the environment than the state, since the state had political interests that were contrary to rural wellbeing. The conflict was not resolved in the meeting, as the days' events were coming to a close, but later, when I interviewed Alan, president of Huallanca's committee, he made the following objection to Alfonso's presentation:

> "The committees know their exact geography, their water quality, all of that, and they know how much is contaminated and how much is not contaminated. We're not talking about only Vicos, although they do know it too. He (Alfonso) told me, 'No, that won't work, because the technical park has to be—' That's not up for discussion. I know my soil, and I know when there is a problem. How are we going to say, that one is okay and one is wrong? It's a prejudice of values that one (kind of knowing) works, and the other doesn't. He said, "No no no, that is not going to be valid, that doesn't have value because it has to be confronted with the scientific technical part.' So then what are we here for? And the committees then? If I don't know my own land and they are not going to take into account our local knowledge, what are we here for?" [recorded interview with Alan][94]

It is safe to assume that mines do not want to have conflicts with surrounding populations. To that end, environmental committees can be useful to mines, especially for mines like Antamina that are large operations in the public eye. Citizen groups testing water and reporting it to the public can help reveal that the mine's own tests are authentic. Citizens might detect problems that state representatives are not aware of, because the citizens are right there, living in the impact zone. That is fine so long as these problems are evaluated by the right authorities using science. This process only smooths relations with communities if all can agree on who has the final authority to judge whether contamination has occurred, and what the criteria will be. From this perspective, villager perceptions of contamination must concede in the face of expertise.

One example of an environmental committee that is highly technical in its approach to environmental management comes from the city of Huarmey. The committee, composed of members of civil society institutions, such as schools and state offices, plus resource user groups such as fishers, conducts parallel testing of water sources alongside Antamina but is able to

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[94] *"Los comités conocen exactamente su geografía, su calidad de agua, todo eso, ellos saben cuánto está contaminado, cuanto no está contaminado. No estamos hablando de solo Vicos, ellos si saben también. El [Alfonso] me dijo 'eso no, eso no sirve. Porque la parte tecnológica eso tiene--Eso no es de discusión.…Yo conozco mi suelo, y yo sé cuándo hay un problema. Como vamos a decir si eso está bien o si eso está mal? [Es] un perjuicio de valor. Que uno sirve y el otro no sirve. Él dijo no no no. Eso no va a tener valor, no tiene valor porque tiene que ser confrontado con la parte tecnológica científica. Entonces para que estamos nosotros? Y los comités entonces? Si no conocemos nuestro lugar y no van a tomar en cuenta nuestro conocimiento local, para que estamos?"*

decide during their independent meetings what tests to do where and where to send samples to be analyzed. Through this process, the committee opted to test groundwater and found rising levels and dangerous salinization due to Antamina's tree plantations (which were, ironically, part of their environmental mitigation plan). By pressuring Antamina with these results, the committee successfully convinced Antamina to change irrigation practices and expand monitoring to include new groundwater sources. This 'success' story was conveyed to me several times during my fieldwork both by Antamina representatives and by engineers who worked with the committee.

However, when I visited Huarmey, I spoke to user group members who participated in the committee but had less positive views of the effects of the committee. For example, they complained of smells but noted that testing showed there was 'no air pollution.' They complained that testing often showed 'no pollution' when they themselves perceived it and thus did not trust the testing process, despite the fact that they participated in it. Instead, some citizens theorized that the committee was 'bought' by Antamina. At any rate, they were dissatisfied with the ability of the committee to represent their environmental concerns.

Promoters are often caught in the middle of different interests. Mine operators might hope to work with local environmental vigilance committees to advance their own public image of transparency. State agents also solicited environmental committees with the idea of making them first responders in environmental emergencies by documenting things like mudslides and mine accidents and reporting them to the state. In meetings I attended, committee members were agreeable to these kinds of roles, but were persistent in the priority that drove them to participate in committees—calling attention to and getting assistance with the contamination problems they perceived that affected their lives and livelihoods.

There is a disagreement about how much authority environmental committees should have in the regulation of the environment. As promoters seek to establish themselves as legitimate actors in environmental vigilance, they must face other kinds of authorities—mine, state, local government, etc.—that might wish to interact with them but within a different kind of hierarchy than promoters imagined. As illustrated above, Alan felt that Alfonso was discounting villager abilities to judge environmental problems and the validity of their knowledge about their localities. The discourse of scientific-technical knowledge as unbiased and the final arbiter of truth about the environment can be a barrier to the kinds of ways of knowing that promoters seek to insert into debates about mining impacts and responsibility. Even though promoters seek technical training and use this discourse, it does not necessarily follow that they come to see it, or those who claim to have superior knowledge of it, as legitimately higher authorities. Just as the perception of contamination is embedded in the positionality of those who see themselves 'being contaminated', promoters assert the authority of their situated experience alongside other environmental discourses.

Contamination and Subjectivity

Throughout this chapter I have conformed to the definition of contamination that reflects legal and technical uses. I have thus used words like "impacts" and "problems with water" when referring to cases like Vicos and Tinyash where communities believed they were being contaminated by nearby mines, but could not prove it through sufficient evidence of severity or cause. I have purposefully set aside the question of whether or not Barrick, Toma La Mano, Caudolosa or any other mine operation is 'really' to blame for degrading resources because it may well be the case that natural mineral leeching or abandoned or informal mining has created

or contributed to water problems and the purpose of this chapter is not to decry any particular mine for a specific impact.

What I have sought to illustrate is that 'contamination' is made to mean varied things by actors who are socially situated differently. Promoters from communities who feel they have 'been contaminated' understand what that means differently than the operators of the mines that they see as responsible. Further, during interactions where members of organizations, communities and mines discuss environmental problems, disputes about contamination are exacerbated by the way these differently situated actors speak past each other as they use the same terms differently and see dissimilar roles for technical science in verifying contamination. However, different ways of defining contamination are more than a matter of opinion. Engineers, lawyers and scientists adhere to definitions of contamination that are upheld through state policy and legal proceedings; perceptions of contamination are dismissed by these actors unless they can be verifying through science.

If I were to adopt the definition of contamination used by the campesinos and promoters who observe the signs of environmental degradation and its correlation with activities such as mining, I would characterize the kinds of impacts that legal mines create as 'legal contamination.' With this term, I honor the validity of concerns of rural campesinos and other kinds of impacted residents about the way their environments have changed and been damaged due to mining, even when tests show that their impacts are within state limits. However, I also acknowledge that mining impacts are not always sanctionable under law. There are barriers to establishing culpability, and scientific-technical knowledge about nature can be used in such a way that increases these barriers and discredits the authority of people who know their environments well through daily observation and livelihood practices.

Mines use the subjective side of science and the legal stipulations to argue that they still are not convinced that contamination has occurred. This delays concrete responsibilities, such as taking action with a call for more tests. It is possible that mine officials tend to avoid taking on environmental clean-up or mitigation action because it implies their responsibility for an environmental problem and therefore evidence of their guilt. The unfortunate result is that committees like Jangas spend time investigating problems without much mitigation action.

A line is drawn between 'perception' and 'real' contamination in these discussions. Affected populations often perceive contamination in non-technical ways, such as through observed changes in the environment. Unless there are tests to back these up, mine technicians can argue these are only perceptions. Even when there are tests, mine technicians can argue that these changes could be due any number of causes, and are not necessarily the responsibility of mining.

One attempted mechanism for addressing this gap in understanding has been the training of residents (like campesinos) in more technical ways to measure and define contamination. This, however, does not necessarily resolve the disagreements about what constitutes contamination. Campesinos continue to care about impacts and environmental changes more broadly, which they perceive around them and which affect them directly. If these "impacts" are not always contamination, and in fact are often difficult if not impossible to 'prove' as contamination, then how can campesinos express their displeasure with the changes in their environment and get mines or state agencies listening? By continuing to call these impacts "contamination," campesinos—trained and untrained—continue deploy the words that they feel capture their experience.

It is clear from this chapter that environmental engineers and promoters are different kinds of subjects. Subjects that interpret nature using pure technical science find different kinds of

environmental actions acceptable than actors who interpret science from the perspective of a citizen whose life is impacted by environmental changes, such as many of the promoters in communities near extractive industries. However different these subjectivities may be, both express themselves in terms of conciencia, claiming to care about nature and wanting to protect it. In the case of the campesinos and promoters I describe, their positions may make it easier for them to recognize the inherently political aspects of technical evaluations of nature. Even among the promoters trained in technical science, many continued to favor definitions of contamination based on their own perceptions, which they trust more than technical ones.

Conclusions

In his book *Environmentality*, Agrawal (2005) describes the adoption of statistical knowledge of forests in India, writing, "once precise, statistical, generalizing arguments are invoked in the service of policy it is difficult to counter them with vague, descriptive, anecdotal evidence. It is in this characteristic of statistical representation—their capacity to displace nonnumerical arguments and advocacy—that their colonizing effects are to be found" (35). Although the use of statistics to control and manage forests is a different kind of application of technical knowledge than the use of water testing results to evaluate water quality, both have the potential effect of quantifying environmental wellbeing and redefining the important truths within this concept. Water testing enables a particular kind of agency when promoters, villagers, and their advocates use tests to clarify the reasons for perceived water problems or identify unperceived ones. However, the information from water tests can also displace other understandings and narratives of contamination.

Water testing data forms a part of the discourse of technical science, which shapes the world and ideas about the world, including what is true and what is possible. Experts, such as the engineers and technicians, use the discourse of technical science to identify "facts" about nature and science and separate them from opinions and perceptions. This is a powerful depoliticizing move. It occurs when state agents (like the DESA representative in Jangas) limit their intervention because they have a strictly "technical" role ensuring that testing is done correctly, or when Alfonso asserts that the Huarmey committee functions effectively because it approaches environmental vigilance from a "purely technical" standpoint. The discourse of technical science can thus be used to strategically limit participation, as the exclusion of campesinos participants in Jangas illustrates. However, this depoliticizing effect is not uniformly convincing to all actors. When experts give facts, committee participants and affected residents pay attention to who is speaking, and draw their own conclusions about the agenda of the speaker and political nature of information being delivered.

The struggle I described in this chapter over who controls the definition of contamination and who represents authority over environmental knowledge reveals one way in which knowledge and subjectivity are connected. Promoters and other affected villagers interact with technical knowledge about resources differently than do those who are committed to environmental science and state-sanctioned mechanisms for evaluating resources. Even when promoters learn and make use of scientific testing, they continue see contamination on a more personal level, in line with their understandings of self as those who must live with contamination. However, their ability to assert authority using their own perceptions and experience of what it is like to 'be contaminated' is limited within inter-institutional spaces where technical science is deployed as the arbiter of truth.

In this chapter, I have addressed the discourse of technical science and how it influences the dynamics of conciencia. Defining contamination strictly with legal limits and stringent technical measures that require expert interpretation has the distorted effect of construing campesinos and other citizens who cry out against the environmental changes (that they perceive in non-technical) ways as *lacking* conciencia, because they do not 'understand' the correct definitions of these terms. These citizens insist that contamination (which they perceived as environmental changes) exists even when according legal norms and scientific testing suggest it does not. Because of this, they are then targeted with education to make them understand (and accept) that the authoritative arbitrators of contamination are scientists and engineers, most of whom work for the state or mines. Campesinos continue to distrust these sources, whom they suspect of corruption or incompetence.

Scientific technical discourse of contamination can be wielded as a tool of power. Both campesinos and mine engineers try to control the meaning of contamination for different ends. This also contributes to a situation where distrust in mines and conflicts between mines and communities is endemic, because actors mean different things when the say 'contamination' and thus speak past each other. Impacted people see real changes in the environment but hear officials telling them these are not 'contamination' and this fuels distrust. On the other hand, using the language of 'contamination' to talk about unacceptable changes to their environment capitalizes on its politically-loaded potential. Thus, bringing lay people into the 'proper' discourse (and the same knowledge community) with education or participatory inclusion is neither sufficient nor effective. It does not address the underlying problem, which is the sense for many that extractive industries have degraded their environment.

Chapter 6:
Conciencia as "Green" Economic Rationalism

In Urpichallay's auditorium a palpable tension was building. Members of villages and towns along the Santa River watershed had come together with NGO representatives to address commonly held water issues and, hopefully, build solidarity during a workshop called "*El Camino del Agua*" (The Path of Water). Earlier in the workshop, Urpi leaders described the importance of the Andean Cosmovision in shaping how campesinos respect water as *mama yaku* (mother water). But disagreements emerged as one participant, Ramón, insisted that water should be treated as a resource, regardless of any different 'cultural' ideas people had about it. Ramón is a middle-aged man from the coastal town Chimbote, where water from the Santa River arrives, polluted, from the highlands. He described himself as a '*un ciudadano preocupado*' (a concerned citizen) not affiliated with any NGO, and he's clearly angry about abuses of water happening upstream. Ramón said he did not care about cultural differences, he cared about whether people practiced a *'mal uso del agua*' (poor use of water). He pointed out that those in Chimbote had to pay for their water, even though it came to them very contaminated, while those in the highlands didn't. He seemed to be suggesting that the highland people should start paying the people on the coast for having contaminated the water. His comments caused a murmur of dissent among the participants. Arturo, a Vicosino man in his 30s and one of Urpi's trainee, spoke up. He asserted that in Vicos, 'we take care of our water.' The coastal towns were paying for water, but who benefited from this? 'I think that it would be nice if the government would pay us (Vicosinos) for the work we do keeping our water clean.'

The above example shows Arturo, a Vicosino, using the discourse of economic rationalism to assert the value of natural resources and the value of Vicosino efforts to protect them.

Economic rationalism entails placing a monetary value on resources and then responding to these values during resource decision-making. Arturo understood that resources have an economic value; if they didn't, Ramón and his community wouldn't be paying for their water. He seemed to suggest that Vicos, a community that owns the land where valuable resources are located, deserved the chance to cash in, literally, on the monetization of natural resources. In this chapter, I use the case study of Vicos stewardship to explore how economic rationalism has been understood and deployed over time to shape the way Vicosinos make communal decisions about their resources. I consider the following: To what extent has Economic Rationalism, as a discourse and as a logic of calculation, shaped resource management plans, interpretations, and interventions in Vicos? What are the common assumptions about campesino incentive structures versus the actual incentives that influence stewardship? And, how do the outcomes of stewardship efforts reflect conciencia and environmental subjectivity in Vicosinos, including its variability?

This chapter analyzes the broad set of incentives that Vicosinos negotiated to make resource decisions and attempt to shape the decisions of others. While it is fair, I argue, to interpret Vicosinos as economic-rational subjects, it is more difficult to "set the incentives" to encourage stewardship. Those who wish to set the incentives for stewardship (NGOs and state actors) don't see the same landscape of incentives that Vicosinos do. This chapter describes the broader context for these economic subjectivities and considers what impact it has on the potential for conservation behaviors.

In what follows, I provide background on the idea of economic rationalism, a globally circulating discourse. I explain how I analyzed my data for economic rationalism to arrive at this chapter's argument. Then, I describe the history of the community-based but NGO-led

stewardship project *Agua Para Siempre* (Water Forever, hereafter APS), which initiated in 1999, and trace what changed in Vicos during the 10 years following APS up to the point of my fieldwork. Understanding what changed within Vicos and in relationships with institutions and resources requires a closer look at a broader set of interests and contexts affecting Vicosinos, including incentives at regional, community, and individual levels. Following this, I explore the ways that Vicosinos also contribute to the incentives structures that they and others respond to, and how this influences relationships among actors as well as relationships between actors and resources. I also discuss variations in perceptions of the environment and pollution that were revealed during interviews in Vicos, and consider what impact these have on communal decision-making. I end by discussing the relationship between economic rationalism, as a discourse and as a practice, and stewardship efforts, and what these dynamics say about subjectivity in Vicos as well as practices of environmental governance via community-based stewardship more broadly.

Economic Rationalism and Conciencia

Economic rationality is a discourse of the environment but not a version of conciencia in itself because it can lead to degradation as well as conservation. As such, economic rationality informs how people in Ancash interpret conciencia in each other. Economic rationality is linked to both a certain kind of subjectivity (*homo economicus*) and view of nature (as resources, raw material to be used in capitalist endeavors). This discourse of the environment takes human behavior and relationships to nature and reduces them to questions about personal costs and benefits. It is a tool for explaining how people--in this case, campesino communities--negotiate their options in relation to natural resources. It thus shapes how campesino communities are

targeted with development programs and with conservation initiatives under neoliberalism. The assumption that campesinos will be economically rational shapes what is offered through these projects. It also shapes how actors that offer projects (state officials and NGOs in the case I describe) interpret the stakes for campesino communities. And, economic rationality shapes how their resulting behaviors are interpreted.

A key contribution of anthropology to the study of economic rationality is the analysis of a particular kind of subject: *homo economicus*, the calculating, self-interested actor (Ong 2006). Homo economicus is a theoretical construct of an agent who attempts to optimize personal gains while reducing personal costs. According to economic theory, behavior that is in line with an individual's cost-benefit analyses is considered economically rational, while deviations (explained as "culture" or "cognitive bias") are considered irrational.

While the concept of homo economicus is not new, Lemke (2001) describes how this concept has taken on a new importance within neoliberal ideology. In classic liberalism, rationalism is thought to emerge from free-thinking individuals freed from state-imposed constraints. Classic liberalism sees people as being 'naturally' self-interested and calculating: people are expected to already be economic rationalizers at heart who maximize their own benefits when responding to incentives. Neoliberal ideology, on the other hand, references economically rational individuals with the premise that they must be created. Rather than enabling homo economicus by removing constraints on human nature, neoliberal ideology requires people to become this kind of agent through the setting of conditions and variables which form the context for actions (Lemke 2001, 200). Homo economicus is thus a subject formation goal, not a given. As Brown (2003) writes:

> "Neo-liberalism is a constructivist project: it does not assume the ontological givenness of a thoroughgoing economic rationality for all domains of society but rather takes as its task the development, dissemination, and institutionalization of such a rationality" (4).

At the same time, neoliberal policy and ideology extends a 'market logic' into and throughout society, redefining new spheres of human activity such that they can be calculated by economically rational actors according to their costs and benefits (Foucault 2008). Marriage, crime, children, etc., come to be understood "economically" in this way, and neoliberal subjects make decisions about these aspects of their lives accordingly (Read 2009). Nature also becomes increasingly commodified and territorialized through neoliberal policies, as landscapes are divided and classified according to marketability and values of resources (Igoe and Brockingon 2007).

The economic-rational subject and commodified nature present a dilemma for conservation, because as nature became increasingly commodified, incentives to exploit resources are increased. Homo economicus does not possess any intrinsic motivation to protect nature. Instead, self-interested actors are likely to exploit resources if it is in their economic interest to do so. In the classic "tragedy of the commons" narrative, common-pool resources are over-exploited because benefits accumulate to the exploiter while cost is spread evenly among users. Thus, each user is driven by an incentive to exploit before someone else does, and passes on the cost of this act to the larger group. If exploitation goes unchecked, the entire resource will become degraded, resulting in the "tragedy of the commons" (Hardin 1968). While actors are likely aware that the degradation of the common-pool resource benefits no one, as individuals they have no incentive to conserve since doing so would entail personal sacrifice while others reaped the benefits of their loss. What this scenario illustrates is that economic rationality can lead people to exploit nature at the expense of their environment (and ultimately, their society) if resources use is not

regulated somehow. Whether this happens in any given context depends on factors such as population pressure and social norms.

The neoliberalization of resources also presented an opportunity for conservation because new commodities and markets could be brought into the global economy. This allowed nature to be commodified in new ways that conservationists hoped would lead to its protection. One such example is the marketing of protected areas as tourist attractions, thus incentivizing their preservation (Brockington and Duffy 2010; Igoe and Brockington 2007; Medina 2015). Additionally, displaced local people are newly understood as stakeholders: economically-rational actors that can be convinced that conservation is in their best interests if they receive income from, for example, tourism. In this way, problems and solutions are redefined:

> Neoliberal conservation moves beyond a world of win-win solutions to a world of win-win-win-win-win-win (or win^7 if you like) solutions that benefit: corporate investors, national economies, biodiversity, local people, western consumers, development agencies and the conservation organizations that receive funding from those agencies to undertake large interventions (Igoe and Brockington 2007, 435).

These dynamics describe many interventions in Peru that target rural campesino communities, including locally operated tourism projects in communities near the Huascarán National Park, sustainable forestry management plans, and organic farming projects that support both subsistence farming and the market sale of produce. In each of these three examples, new conservationist behaviors (respecting park restrictions, planting and sustaining forests, and farming with organic technologies) are combined with income-generation strategies via tourism, the sale of wood, and the sale of produce. Such programs encourage campesinos to develop into homo economicus by taking responsibility for their own wellbeing and responding 'correctly' (with the right calculations) as they consider the incentives and engage with opportunities that might benefit them. The ideal subject imagined by these projects--and thus the version of

conciencia embraced--is a 'green' homo economicus: an economically-rational actor who sees environmental sustainability as a personal benefit when assessing the incentives and stakes.

The project I will describe--APS--fits into these dynamics in a slightly different way. Rather than provide income to campesinos in exchange for monitoring water (as Arturo hoped for in the opening example), the NGOs who developed APS saw Vicosinos as already having an incentive to protect their water since they depend on it for their livelihoods. The benefit to be generated from monitoring and defending water from pollution was health and income generated from farming, animal husbandry, and the other livelihood activities that were 'traditional' to Vicos. The NGOs interpreted Vicosinos as already green homo economicus subjects because they applied economic rationalism by calculating that it was in their own best interests (individually and collectively) to conserve and protect the natural resources in their surroundings.

This is where conciencia becomes entangled. While being economically rational isn't synonymous with having conciencia, actors evaluate each other's conciencia in relation to what they consider to be rational decision-making and responsibility. In Peru, when campesinos overexploit resources, they are seen as lacking conciencia in part because they have miscalculated: they have succumbed to the temptation of short term gains at the expense of long-term ones. The underlying assumption is that it is in their own long-term best interests to conserve the environment and protect the resources within their immediate control. But campesinos do not always make decisions that reflect these priorities, in which case their short term interests must be reined in; they must be made to calculate with a green economic rationalism.

Another important characteristic of economic rationality is its link to morality within neoliberal ideology. Lemke argues that assessment of costs and benefits has become not only

rational, it is also construed as "prudent" and "responsible." Neoliberal policies include strategies for getting people and collectives to embrace this "responsibility" for their wellbeing and life, and then shift "the regulatory competence of the state onto [these] 'responsible' and 'rational' individuals" (Lemke 2001, 202). Brown further argues that morality is entirely reconfigured under neoliberalism "as a matter of rational deliberation about costs, benefits, and consequences.… the rationally calculating individual bears full responsibility for the consequences of his or her action no matter how severe the constraints on this action" (Brown 2003, 5). Further, neoliberal subjects are expected to be increasingly entrepreneurial and long-term planners, willing to take responsibility for creating their own benefits (Hayden 2003). For green homo economicus, patience is a virtue. The idea of conciencia connects economic rationality to morality because some kinds of calculations are framed morally and become examples of 'conciencia'. National park actors, for example, see the preservation of nature via respect for park restrictions as a matter of both economic rationality (campesinos benefit from nature's 'services,' as well as tourism) and of moral obligation (being good citizens, unselfish, etc.). Thus, the version of conciencia constructed by economic rationalism is one where "correct" cost-benefit analysis is imbued with moral responsibility.

Analyzing for Economic Rationalism

The other two discourses I have described in this dissertation are overtly championed by specific groups of actors. Urpi staff promote the Andean Cosmovision to a wide audience, explaining what it is and how it relates to conservation. Environmental engineers working for mines and other agencies are often faced with the task of explaining environmental science techniques and data to lay audiences. In doing so they become the carriers of technical science.

But economic rationalism is less identifiable as a distinctive discourse with a common set of dedicated actors. Instead, economic rationalism more subtly influences how a wide range of actors think about environmental stewardship. It's more hegemonic, appearing as common-sense assumptions about human nature in people's explanations and in project designs. It's how people perceive that things work, but it's also how they've been led to see them. Economic rationalism legitimates specific but very widely accepted ways of doing things, and it justifies how Vicosinos treat their resources.

Because economic rationalism is less visible and tends to be blended with other discourses, I used an open-coding process to find terms and phrases related to economic exchange, incentives, and cost-benefit calculations. To understand perceptions across Vicos, I coded transcriptions of interviews with Vicosino men and women, identifying how community members described the benefits and problems brought about through different kinds of relationships with institutions, as well as how they understood environmental changes and the costs associated with these.[95] I also identified instances when an interviewee mentioned economic conditions or transactions when answering other kinds of questions I asked. In this way, I developed sub-code groups, such as "fines" and "benefits," that locate economic thinking and actions within concrete categories.

I drew from participant observation during Vicos assemblies, sessions, and other meetings of Vicos leaders 2010 and 2011 (29 total events) to identify instances when economic interests (or 'benefits' more widely construed) came into play during community decisions. I focused on the interactions with mining representatives, and the discussions related to use and regulation of trees, water, irrigation systems, etc. I also compared different narratives given by the Urpi

[95] The text analysis of randomly sampled Vicos interviews I conducted for this chapter was based on a thematically representative subset of 82 transcribed interviews (38 with men and 44 with women).

workers and Vicos promoters I interviewed to construct a multilayered history of APS and reveal how different incentives were perceived by different parties. A book published about APS (Recharte et al 2002) provided an official narrative of the project. To trace changes since APS, I drew on narratives from interviews with key Vicosinos who had leadership roles during that period, including Diego and Hector, but I also compared three different versions of the community's internal rules and regulations (2003, 2007, and 2010) which outline the responsibilities of different authorities and explicitly state sanctions for violations of community rules. In these documents, I looked at how rules related to resource use had changed over time, and in what contexts economic interests were mentioned. Towards the end of the chapter I also compared how the perspectives of Vicosino men and women shed different light on recent resource decisions, given the characteristics of their community government and their unequal participation in the decision-making processes.

NGO-led Stewardship in Vicos

In what follows I provide the history of APS and the incentives that shaped environmental decision-making and NGO-led stewardship participation in Vicos. My aim is to illuminate reasons why Vicosinos institutionalized resource management in the ways that they did over time, and why they did not embody green homo economicus en masse. NGOs working with Vicosinos assumed they already had an incentive to protect "their" resources, but this straightforward view oversimplified Vicosino relationships to resources, institutions, and each other. I describe how a changing context of mining, NGO relationships, perceptions of environmental change, and internal community dynamics affected how decisions were made over time.

Vicos Prior to APS

Vicos has a particularly important history of being deployed as a political symbol with the economic subjectivities of campesinos interpreted in different ways. The Cornell-Peru Project (CPP) in the 1950s and 1960s centered Vicos in debates about capitalist or socialist subject-making efforts during the Cold War. The CPP was, and continues to be, controversial for its motivations, applications of anthropology, underlying political and gendered assumptions, and supposed benefits versus negative impacts on Vicosino men and women (Babb 1985; Greaves et al 2011; Lynch 1982; Ross 2011; Stein 2003).

Prior to the CPP, Vicos was a Hacienda managed by the Social Welfare society of Huaraz. Cornell University rented the Hacienda and began engaging the Vicosinos in new agricultural and economic strategies designed to 'modernize' the community. Vincent (2012) notes that the project was complex enough to be interpreted both as a U.S. Cold War strategy for encouraging capitalism, and as a revolutionary form of collectivism from the perspective of the Peruvian oligarchy of the time who shuddered at any hint of agrarian reform (24). On the other hand, leftists in Peru saw the project as a U.S. strategy to undermine collectivism and socialism, and depicted it turning Vicosinos into eager capitalists (Pribilsky 2009). Meanwhile, U.S. researchers in Vicos were keen to "locate a particular developing indigenous subject – one closer to liberal capitalism (and its values of self-reliance and individualism)" than to communal indigeneity (Pribilsky 2015, 131). In this way, Vicos became (in the words of Alan Holmberg, the project's main architect) a "political football" (Pribilsky 2009, 424). But whether Vicosinos became more capitalist or more communist from the perspectives of political interest groups of the time sheds scant light on how Vicosinos saw themselves.

With the assistance of Cornell University, the Hacienda became productive enough to fund its own purchase. The farmers made a down payment on the land in 1962 transforming it into a communal entity prior to the nation-wide agricultural reform. Cornell assisted Vicosinos in establishing a self-governing system which, although it has evolved somewhat, is still in place. The Campesino Community (CC) that emerged is a state-sanctioned organization through which members (comuneros) communally have rights to the land and make important group decisions about resource use. Comuneros inherit their position as landowners from a parent, usually father to son. Comuneros form the general assembly of Vicos, which is the most respected decision-making body among Vicosinos. From the assembly, comuneros elect a Board of Directors (*Junta Directiva*): nine individuals including President, Vice President, Secretary, etc. Vicos land is divided into ten sectors, and each sector elects a delegate to attend meetings, speak for the sector's interests, and report back with important information. Like elsewhere in Latin America, CC leadership positions are considered a 'cargo' and comuneros have a responsibility to take their turn. Cargos rotate every two years if not more frequently, thus distributing both the burden of leadership and potential influence in the community as evenly as possible. The features of this system shape how stewardship was adopted over time, and I will return to them later.

For a time following the Cornell project, Vicosinos were hostile towards projects, interventions, and 'being studied'. Mayer (2011) summarizes some of the key changes in Vicos over these years: In the 1970s, the community erected a gate and began refusing entrance to some outsiders. The population continued to grow, and a new generation of comuneros took on leadership of the community. Communal land began to be divided into individual parcels, in part to accommodate the growing population, but Mayer notes that it also led to a more intensive use of the Honda Valley. In the 1990s Mayer visited Vicos and learned of some important changes:

First, the community had begun debating how to manage eucalyptus forests planted during the Cornell Project. Some had been harvested, and the cash was to be distributed among comuneros. Not everyone thought this use of the profits was the best decision, wanting instead to use the money to pay for infrastructural improvements. Second, the recently elected provincial mayor was a Vicosino, thanks to the voting power of the large community population. The community was campaigning to be re-designated as a district, and had begun transforming the town by erecting a plaza and cement structures. Finally, there were conflicts with miners passing through their territory to extract ore. Each of these situations would continue to unfold in the following years creating the context within which environmental stewardship took shape.

This history of Vicos is important to note, not only because of the uniqueness of the interventions but because it illustrates how economic subjectivities were worked on over time, with an interest in economic subjectivities. Thus, while recent scholarship has analyzed the rise of new "neoliberal" economic subjectivities (Elyachar 2005; Postero 2007), neoliberalism was not the beginning of efforts to shape Vicosinos into economically-maximizing actors, nor the beginning of efforts to shape economic-rational calculations within the community.

Agua Para Siempre (APS): 1999-2001

In 1999, Diego knocked on the door of Urpi. The trout in the river had died, and as the newly elected president of CC Vicos, he was looking for help protecting their water from the small polymetallic mines in the upper end of Honda Valley. Vicos irrigation water comes from high altitude lakes that are geographically remote from mining impacts, but the river along the valley floor where animals grazed was becoming degraded. Urpi worked with another NGO, The Mountain Institute (TMI), to create the USAID-funded project Agua Para Siempre. Following

initial testing that confirmed the presence of heavy metals as well as harmful bacteria in Vicos rivers, the CC assembly selected 20 comuneros for the new cargo of *promotor ambiental* (environmental promoter). Promoters learned to measure conductivity, alkalinity, acidity, and temperature in Vicos water and recorded the results. Engineers helped them establish a protocol for testing key points high in the valley as well as in the community, including some potable water sources. These promoters would help keep watch over the nearby mining operations and report back to their community assembly whenever there was a problem.

The project combined elements of the Andean Cosmovision, which was Urpi's specialty, with training in environmental science techniques. Thus, promoters learned to perform rituals at water sites when taking samples according to scientific protocols. Other organizations, including some state agencies, had less direct roles in the project but were hopeful that through APS, Vicosinos would contribute to conservation, the regulation of resources, and vigilance over mining.[96] The project also initiated dialog meetings with mines and showed promoters how to perform water mitigation techniques. In the Honda Valley Vicosinos held *faenas* (traditional work parties), replanting native grasses resistant to minerals and constructing a dam at the highly polluted Lake Garrosa so that minerals would settle there instead of flowing into the valley. The assembly also acknowledged a new leadership position in Vicos, the "Secretary of the Environment," which became Hector's cargo. The assembly voted to give him an office in the community center. In these ways, APS introduced new regulatory institutions and relationships with mines.

[96] See Recharte et al (2002). My interviews with state officials revealed similar attitudes.

Community Changes: 2001-2009

In the years that followed, mining grew and mineral prices soared. Contributions from mining began to pour into subnational governments due to new *canon minero* laws transferring mining rent to the impacted areas of the country.[97] Canon minero is distributed down to the district level and Vicos belongs to the district of Marcará, which began seeing larger amounts of funding available through the municipality. Vicos continued to ensure a Vicosinos was elected as mayor of Marcará, but the community still had to compete with other communities and townships for canon minero funding. The incentive to become a district grew even stronger. Part of achieving this designation meant urbanizing central Vicos and bringing basic services and amenities to the community. The Marcará municipality funded expansion of the primary school in 2004, built a stadium in Vicos in 2006, and in expanded the High School in 2008. In 2007, the community petitioned the provincial municipality of Carhuaz to build a cement market in Vicos.[98] Additional public works projects during these years included expanded sewer, electricity, and potable water access.

The mines in the Honda Valley also grew and Vicos relationships with them changed as well. More Vicosinos began to work in the mines as their operations expanded. The first agreements with mines evolved into yearly contracts through which the mines committed to public infrastructure development, priority employment, and subcontracts to Vicosinos. Through these agreements, the community successfully negotiated rents and projects from mines in exchange for use of their lands, independent of taxes mines paid to the state. The mine Arequipa M was taken over by the company Caudalosa, and in 2006 the company paid for a Computer

[97] There is no direct translation for *canon minero*, but in Peru, 'canon' has come to refer to a rule devolving revenue to subnational governments (Arellano-Yanguas 2011, 622)
[98] Vicos is in the province of Carhuaz, which receives canon minero. Vicos can petition this higher tier of subnational government for additional public works funding.

Center to be built and furnished in central Vicos. In 2009, Caudalosa renovated the Chancos hot springs, a community held enterprise that brought money to the CC government and provided employment opportunities to residents. In 2007 the community negotiated one million USD from the company Toma La Mano as retribution for past damages, and this money was divided up among the approximately 800 families of Vicos. The elected leaders of the community and the general assembly of villagers also continued to organize strikes against mines, during which they would completely shut down operations until the mine complied with their demands. Several Vicosinos I interviewed credited APS as the origin of these negotiations and the first effort in the community to control mining.

Other shifts in the structure of the Vicos government were taking place. Just prior to APS, the community assembly recognized eight "specialized committees" as part of the CC government which would operate in coordination with the CC Board of Directors but focus on specific topics. In community records I found the committees first mentioned in the bylaws of 2003, then revised in 2007 and 2010. Three of these committees were directly related to resource management: Water and Irrigators, Forest and Environment, and Use and Distribution of Cultivated Land and Pasture. Each revision to community bylaws expanded on committee duties. These revisions illustrate how CC Vicos was further institutionalizing some kinds of environmental control. For example, the water committee's 2003 mission was to "resolve conflicts related to water following the regulations approved by the general assembly." In 2010, this one-sentence description had expanded to a 5-page narrative which included creating and enforcing a distribution plan (something that hadn't existed in 2003). The Forest and Environment Committee came to include in its duties monitoring water near mines to ensure they

don't contaminate, as well as developing a sustainable forestry plan in conjunction with the Peruvian State.

Although CC institutions were focusing on environmental control, the link between the Urpi-trained promoters the CC was inconsistent over time. It was not clear in the bylaws how, if at all, promoters were expected to take part in the responsibilities of the CC government. Revisions to bylaws assigned water testing duties to the Forest and Environment Committee, but since comuneros become members of the specialized committees on rotation, these individuals changed every two years and were no longer trained promoters. It is also common for CC leaders to be removed or step down even more frequently. If something is mishandled or the assembly feels that the community is being poorly managed, they will remove and replace the entire Board of Directors on the spot during an assembly. This creates a lot of pressure on community leader to perform well, and high turnover rates. These rapid changes in leadership likely contributed to inconsistent understandings over time.

My interviews indicated that the institutionalization of promoters was inconsistent, and that rapid turnover of leaders was partially to blame. Promoters narrated their frustrations with the inconsistencies in the way they were treated by other Vicos leaders. Vicente was often in the position of having to explain water testing activities to new leaders. "Every year, with a new rotation of authorities, we have to get them to know us. This president knows us, but he's going to leave! He's a running for a municipal office, and when he wins, he'll renounce his position here," he told me in 2010. At one point, the CC board agreed to hire a car to take promoters into the high valley to test the water, but then another board took office and ignored the request. Working with rotating authorities was frustrating and while some promoters continued to test

water[99] they also began to resent that their work was unpaid and, they felt, undervalued by fellow villagers.

Unlike members of specialized committees, promoters didn't have any designated end to their cargo, so they retired haphazardly and for various reasons. A few were assigned other cargos in the community and felt there was not enough time to do both, but knew they would be fined for noncompliance with their 'official' cargo. Other promoters quit for wage-labor opportunities, including work in the mines. "Sometimes your family has needs," one said, pointing out that his participation had always been voluntary. Armando, a promoter introduced in Chapter 4, was offered a job in Caudalosa managing compost. The job offer was due partly to connections he made during Urpi's promoter training, partly due to his technical background and experience as a gardener. Thus, in a somewhat ironic turn, Armando quit promoter duties to work for a mine he had once monitored. But also significantly, the mine's adoption of the composting program was in part due to pressure from Vicosinos and Urpi to employ better environmental practices. The compost would nourish native trees that Caudalosa operators agreed to plant.

The relationship between Vicosinos and NGOs also expanded in the 2000s and both TMI and Urpi continued engage Vicosinos participatory projects. In 2003, Florencia Zapata of TMI began a participatory oral history project called *Memoria Viva* (Living Memory) and eventually, in collaboration with Cornell University, brought CPP materials back to the community (Isbell 2011). Memoria Viva engaged over 1200 Vicosinos in remembering and documenting their past through and eventually lead to a book (Vicos 2005; Zapata 2011). TMI and Urpi were also instrumental in the construction of a small museum in the community plaza called *La Casa de*

[99] I found field water monitoring data dated 2003 through 2007 in Hector's records, recorded by six different promoters.

Los Abuelos (House of the Grandparents) with a permanent exhibit on Vicos history, ecology, and traditions.

Both TMI and Urpi also worked on projects with smaller groups of Vicosinos in this decade. These included a homestay tourism project that worked directly with eight families, facilitated by TMI (Kalman 2005), and subsequent cultural and biodiversity preservation projects led by Urpi, including the most recent agricultural biodiversity project which worked on organic farming strategies with subgroups of Vicosinos. Other transnational development institutions began engaging with Vicos as well, including the Peace Corps and World Vision. These blossoming relationships created new opportunities for Vicosinos to learn, make transnational connections, receive training, reflect on the past and the futures they wanted for their children. When I interviewed Vicosinos in 2010, many commented on the benefits brought through these relationships, but also on the unequal effects when NGOs worked with smaller, more exclusive groups. Urpi also continued to provide training opportunities for Vicos promoters over the years, including more training for previously trained promoters, as well as the addition of new promoters. As Urpi's own presence and influence became more familiar among Vicosinos, the NGO was increasingly trusted and seen as a source for various kinds of assistance.

Fieldwork 2010-2011

In 2010 I began 18 months of ethnographic fieldwork. The community leaders in 2010 and 2011 were kept very busy coordinating between the two largest, legal mine companies in the Honda Valley: Caudalosa S. A. and Toma La Mano S. A.[100] Both Peruvian companies were operating just below the cutoff for medium mines (medium mines occupy more than 2000

[100] Sociedad Anónima (S. A.) is the Peruvian designation for a joint stock company with limited liability.

hectares and producing between 350 and 5000 metric tons daily) (Rodríguez 2014). As small mines, they were supervised by the regional DREM office as well as the National Park office due to their location within the park. Their concessions were legal because they were grandfathered in prior to the establishment of the park in 1975. These concessions could also pass from one corporation to another as a commodity, so while Toma La Mano had been excavating long-term at the mine called Toma La Mano 2, Caudalosa had been excavating at the mine called Arequipa M since 2005.

The CC had divided up some of the benefits by having the five upper sectors of Vicos work with Toma La Mano and the five lower sectors work with Caudalosa. But it was the general assembly that negotiated the year-long contracts with Caudalosa and Toma La Mano in 2010 which centered on the construction of a new community auditorium along with included numerous stipulations and smaller requirements such as providing gift baskets for widows and single mothers, and sweet bread on Christmas.[101] Priority employment for Vicosinos was also included in the contract. Vicos held several strikes during my fieldwork against these two mines for failure to follow through on part of their contracts with the community or for environmental-related issues.

The relationship with these two mines influenced community politics in striking ways. The Board of Directors spent a great deal of time coordinating and communicating with mines, ensuring that they complied with their agreements and dealing with complaints against them made by Vicosinos. Leaders were held to a high standard by the assembly, and it seemed they were constantly working to stay on top of community concerns. In one assembly, a newly elected president was harshly criticized for not remembering how many tons of ore Caudalosa was

[101] Gifts of this sort reflect an effort to distribute some benefits to poor and vulnerable women, but they are meager compared to what comuneros received in the form of cash and benefits.

removing daily. At another point a president was accused of agreeing to a deal with a mine without bringing it to the assembly first, and was nearly removed from office.

Leaders also spent a large percentage of their time managing and supervising the infrastructure projects funded by the mines, which in itself was a demanding job with personal liabilities. For example, in 2010 and 2011 the Board of Directors were in charge of overseeing the construction of the community's new auditorium using funds that were provided directly by the mine. Although the community hired a manager to run the construction project, the Board of Directors had to ensure that the materials were of good quality, that coveted construction jobs were fairly distributed throughout the community, that construction stayed on schedule, and so on, or else face criticism from the comuneros and possible expulsion from office. Ultimately, the Board of Directors (and more specifically, the President) were held responsible for the overall success of the project. At one point, the community fined a former president for a past construction job they deemed poorly executed. This illustrates what was at stake for leaders in fulfilling their duties.

Informal mining had also increased in the decade following APS. Because informal mines are illegal and in violation of the National Park restrictions, I did not actively pursue information about them during my fieldwork, both for my protection and the protection of those individuals associated with them, so it is hard to say to what extent their dynamics parallel the legal operations. However, it was common knowledge among Vicosinos, National Park officials, and Urpi personnel that Vicosinos worked "cooperatively" with illegal mining. People often commented that in Vicos, "every sector has its mine." From incidental information that I acquired, it seemed these mines were in different stages of developing operations and had different kinds of arrangements with investors as well as with state regulation. In some cases,

new sector leadership roles had been created to coordinate the mining. In other cases, it seemed that groups of individuals or families were trying to open a mine as a kind of private investment. However, it was clear that there were strong incentives to work with illegal mines, which provided another source of paid labor and the potential for other kinds of benefits as well.

At this point, only a few promoters continued to test water, generally with Vicente's assistance transporting them up into the Honda Valley. Instead of reporting the results to the community government, Vicente delivered the results to Urpi, and Urpi ordered lab tests (which were more comprehensive) based on the indicators. The results in 2009 showed dangerous levels of lead in a major tap water source, among other problems. Promoter technical skills in water testing were not particularly useful to the CC leaders directly because they still needed an engineer to explain testing results. Urpi sent an engineer, Isaac, to present results of recent water testing to the leaders in 2010 and give the leaders advice on improving the situation (which they partially followed).[102] Hector and Vicente were present at the meeting, and requested that new promoters be identified in each sector so that their committee could continue. However, this did not occur.

In interviews among randomly sampled Vicosinos, there was confusion about the role of Vicos promoters. Some people had no idea that Vicos had, or had ever had, a committee of people who monitored water. Others had the vague sense that people monitored water at some point but had no idea if it was still happening nor what the results might show. A few comuneros complained that the water monitoring was not happening, and blamed the promoters for quitting. There was no common understanding of the promoters, neither of their existence nor their role.

[102] For example, one piece of advice was to better maintain water catchments. The president of Vicos implemented improvements on some catchments but it insufficiently addressed the problem.

Just a few years previously, Urpi had coordinated with the Forestry and Environment committee to train some new promoters, including Miguel who was at the time president of this committee. During his two-year cargo, he functioned as president of both the Forestry and Promoter committees, the former being nested within the CC structure and the latter part of Urpi's most recent training efforts. In these inconsistent ways, promoters were brought back into the CC structure, but as soon as Miguel's term was up (at the end of 2009), the promoters were again disconnected from the CC.

The disconnect between the promoters and the CC leaders seemed to be further confounded by misunderstandings of Urpi's role. For example, when I sat down with the comuneros on the Water and Irrigation Committee and asked them about their responsibilities, one of their members explained that they did not address water pollution issues because "Urpi does that… they control it. It's contaminated." How do they control it, I asked? "I'm not sure, they have a machine," one member said. "They control it with that." As the conversation progressed, another member suggested I talk to Hector and Vicente. He gestured to what he called "Urpi's office" but which was in fact the Environmental Secretary office in Vicos. This "confusion" turned out to be a telling reflection of how some Vicosinos perceived Urpi's role in the management of resources.

Emilio, a randomly sampled comunero I interviewed in his home in Paltash, provides another example. He was in his late 30s and had been working in the nearby mines in their environmental control area and was very critical of what he'd see there, saying there was a lack of control and failure to monitor water in the mines. When I asked him if people in Vicos were "controlling" the water, he said: "No, Urpi does something I think. They control the environment. Since last year, they've put lime in the water." Another comunero I interviewed in

the random sample, Lucho of Wiyash, was working as a tourist guide in Huaraz. He said, "Urpi's office was protecting [the environment]. I'm not sure if that project continues now or what is going on, but I believe they were planting *queñuales*, *kiswar*, [native trees]." Planting native trees and putting lime in the water are things that Vicosinos were doing. But because Urpi funds and supports these activities, Vicosinos that perform these actions are seen by some as part of Urpi's project and Urpi's agenda. The promoters, and more specifically Hector and Vicente, were also seen as an extension of Urpi's activities in Vicos. During interviews, people sometimes told me to "ask Vicente" when I began to ask about the Vicos promoters. While this conflation was not universal, the inconsistency in how Vicosinos interpreted the role of promoters and of Urpi in relation to water stewardship reflects the community's recent history: the CC incorporated the promoters differently at different times, and sometimes not at all.

In 2010, Hector's office was commandeered by the Community board because they needed the space while the auditorium was under construction. The community secretary itemized everything and locked his supplies in a cupboard with his signature, promising to return all his materials and his space once construction was over. A year later, the construction was still not finished and a new Board had taken office. Hector had doubts about ever regaining access to his office. Yet he continued to participate in RRCAA as a representative of Vicos, and attended new promoter training offered by Urpi. On occasion, Vicente would take him into the Honda Valley to test water. The stewardship roles and activities begun by APS thus continued to be partially performed by trained promoters in some contexts, but they did not reflect a consistent community stewardship institution.

The Shifting Landscapes of Incentives

By 2011, promoters were no longer participating in the CC government and water monitoring practices were almost abandoned. Several important things happened in the 10 years following APS that led to this situation. First, and most obviously, local mining grew, and in so doing it became an increasingly important source for employment, projects, funds, and benefits spread across the community. This dramatically changed the landscape of incentives that Vicosinos faced both as individuals and as a community. As individuals, Vicosinos could benefit from direct employment opportunities as mine workers, and secondary employment providing services to miners such as through shops and restaurants (several of these operated on the road catering to truck drivers who passed through Vicos, often operated by women). Comuneros had incentives to extract cash from mines, which could be distributed to them directly. Infrastructure improvement projects were a community-level benefit, and provided additional employment to Vicosinos as workers. Before APS, mines were seen a threat to important resources, but by 2010, they were also a source of livelihood opportunities and community development.

Because mining had grown in Vicos and in Ancash more widely, the importance of mining to the Vicos economy extended beyond relationships with the mines in their own valley. Vicosinos were also employed in mines elsewhere, and the flow of mining rents to subnational governments provided more funding for community projects. As a result of this, Vicosinos had new incentives to turn the center of their agriculture community into an urban center, in the hopes of becoming a district and accessing more mining rents they could use to fund yet more public infrastructure and improvement projects. The growth of informal mining in Vicos also grew and offered a set of attractions similar to formal mining: it provided employment and rents.

The second shift that occurred over ten years was the role of pollution in relationships among Vicosinos, mines, and other entities. Pollution didn't disappear, of course: testing conducted by Urpi in 2009 revealed still-high levels of lead in some drinking water sources. But knowledge of pollution had a different relevance in the community. It was not necessary for Vicosinos to have scientific tests demonstrating polluted water in order to justify their demands on mines. Instead, they could negotiate with mining more effectively by closing the road for any grievances that they perceived from their own perspectives. Their ownership of the land also gave them legal right to create contracts with mine operators that needed to use this land in order to run their mines. Usufruct land contracts were a state-sanctioned mechanism that allowed CC Vicos to ask for exactly what they wanted from mines. And, they could legitimately refuse access if miners didn't comply. Although I did not observe contract negotiations (I was cautioned by Vicosino friends steer clear of the general assembly when they were underway to avoid being associated with mine companies), Vicosinos told me they refused to reduce their demands on Toma La Mano and Caudalosa during negotiations in 2010 and threatened to completely close the mines permanently if the companies did not fulfill the desires outlined in the proposed contract. Clearly, Vicosinos did not need test results as leverage in relationships with mines.

Pollution was still a topic of interest, but it came to be managed within the CC leadership along with a myriad of other responsibilities. The Forestry and Environment committee was in charge of monitoring mining pollution according to the bylaws. During Miguel's tenure as leader of this committee, he and promoters made supervisory trips to mines in the Honda Valley. He described one such visit in the company of Isaac, who explained and pointed out the things that the mine was doing incorrectly. This additional technical assistance was very useful, according

to Miguel. However, in 2010 it was the CC leaders who visited mines to assess whether they were complying with their Environmental Impacts Study (EIA). They relied on the interpretations of mining engineers, because they did not bring an independent engineer with them. They came back satisfied with the environmental controls they were shown. The technical preparations of cargo-holders have varied dramatically, and while CC cargo-holders were in charge of managing pollution, they were also busy with numerous other responsibilities. Pollution was just another item on their extensive agenda.

The third change was an evolving relationship between Urpi, CC Vicos, and Vicosinos more generally. Many Vicosinos trusted Urpi, but sometimes attributed more responsibility to Urpi than the NGO intended. As a result, some began associating Vicosino activities in the context of Urpi projects as things that "Urpi did." This misunderstanding over agency can be traced to APS. During APS, the two NGOs coordinated with the President of Vicos and other CC leaders who were in office at the time. Because of this, Urpi directors saw the project as originating with Vicos: APS responded to Vicos desires. Camila, during our interview, contrasted APS with other kinds of NGO projects that bring ideas from the 'outside' (and thus respond to an external agenda regarding what the community needed). These are generally not sustained by villagers once the project ends, she explained, because the topic is irrelevant for them. APS was initiated because of a need identified from within the community, and was immediately relevant to Vicosino concerns. However, my interviews showed that Vicosinos involved with the project saw themselves (and Vicos) as entering into a relationship that incurred obligations on both sides. They emphasized what they saw as an offer of assistance from the NGOs and how that would benefit them. For example, Hector remembers the first assembly with the NGOs as follows:

> There was a project, "water forever" for whichever place. So Upichallay came to converse with the community. They said, 'well, we have this project. For that reason we want to work well with Vicos, or well with Copa, or with a community, but we'—at this time there was the Engineer Hugo and the Doctor Fermina, they came and spoke in the community meetings—'do you want, or not, this project 'Water Forever' to stay [here for Vicos]? We will teach here, we'll work, we'll control the quality of the water, we'll teach the young men, we'll give classes, workshops, everything. If Vicos doesn't want it, we'll take this project to other communities. Do you want it or not? We prefer Vicos because Vicos is large. It's in the White Mountain Range, it has ravines, it has lots of lakes, water sources, for that reason we prefer Vicos, and we want this project to stay here, because it is a big project,' they said. And so, wanting it or not, the community accepted. So, in this case, [it was decided] that the project stay here. Since we were going to lose the opportunity. Since it was going to teach young men, since the people themselves were going to learn, it should stay here, and they made an agreement. There is an agreement, Rosita. They made an agreement, the result of which meant that this project, Water Forever, would stay in Vicos.
> [Interview with Hector, 2011][103]

Hector's account suggests that he saw Urpi as offering services to Vicos in exchange for their participation. He emphasizes the project as an agreement made with the commitment of the NGOs. The general assembly agreed to work with Urpi (and TMI), and in turn the NGOs agreed to provide training, to work with Vicosinos, and, significantly, to "control the quality of the water." Vicos would lose out on what Urpi was offering and some other community would benefit if the assembly didn't accept the terms of the project: "And so, wanting it or not, the

[103] *Proyecto agua para siempre había, para cualquier lugar. Entonces, Urpichallay venía conversar con la comunidad. Dijeron que, bueno, nosotros tenemos ese proyecto. Por eso nosotros queremos trabajar bien con vicos, o bien con copa, o a una comunidad, pero nosotros,--en ese tiempo había Ing. Eduardo y doctora Beatriz, venían y hablaron en las juntas en las comunidades, ustedes quieren o no quieren que queda ese proyecto agua para siempre? Acá nosotros vamos ensenar, vamos trabajar, vamos a controlar calidad de agua, vamos hacer aprender a los muchachos, vamos dar cursos, talleres, todo… Si no quieren ustedes, bueno, llevaremos a la comunidad copa. Si no quiere copa, llevaremos a otras comunidades, este proyecto. ¿Quieren o no quieren? Nosotros preferimos a vicos porque vicos es grande. Es Cordillera blanca, tiene quebradas, tiene bastantes lagunas, aguas, por eso lo que preferimos a los Vicosinos, y queremos que se queda acá ese proyecto Agua para siempre porque es un proyecto grande. Dijeron. Entonces, queriendo o no queriendo, la comunidad acepta. Bueno, en ese caso que se queda acá ese proyecto, como vamos perder oportunidad. Como va ensenar muchachos, como va aprender la gente misma, ya que se queda, hicieron convenio. ¡Esta con convenio rosita! Hicieron convenio, ya fin de que cayó en vicos ese proyecto agua para siempre. Por eso quedó acá agua para siempre*.

community accepted." The initial project thus came with its own incentive: the assistance and expertise of NGO itself, a benefit that comuneros saw as valuable enough to allow the project to be accepted in the general assembly. Tellingly, however, Hector's account also indicates that not everyone 'wanted' the project.

Promoters themselves acted as homo economicus because they responded on a personal level to the benefits and costs they perceived in being promoters. When the community assigned them a cargo, there was pressure to comply since they could be sanctioned for failing to fulfill their duties. Promoters who volunteered explained that they saw the training as something that could potentially benefit themselves as well as their community. For example, Urpi's training sometimes did lead to future employment. Armando's new job at Caudalosa shows that this kind of benefit was a realistic outcome. Hector continued to participate even after losing his office because RRCAA members valued his participation and encouraged his attendance. In the case of Vicente, it was his job as an Urpi employee to facilitate the Vicos promoters and help them test water.[104]

In the years following APS, Urpi began offering more and new kinds of projects which people found beneficial. As a result, Vicosinos began to look to Urpi as a source of assistance. The NGO offered them training, improved their employment options, and sometimes even gave "gifts" in the form of seeds or other kinds of agricultural input. New training didn't always correspond with new community cargos; some newer promoters volunteered out of their own interest and due to their own potential gain. At the same time, because of Urpi's continued support for water monitoring (and perhaps also the absence of support from the CC government) it further appeared that Urpi was taking on responsibility for monitoring resources. The

[104] At one point, during a staff meeting, Hugo told Vicente it was "his job" to make sure the promoter committee in Vicos functioned.

comments made to me by the Water and Irrigators committee members, that "Urpi controls the environment," suggest that Urpi is seen by some as pseudo-governmental entity that keeps track of contamination in Vicos. Thus, while Urpi thought they were empowering Vicos to control contamination in their community, their efforts were perceived in different ways by Vicosinos, and in some cases Vicosinos understood that Urpi would be doing the controlling themselves.

The increasing focus on mining in the years since APS could have led to intensified commitments to the environmental stewardship started by the NGOs, but it did not. In fact, there were fewer incentives for the community to support the promoters as a form of environmental stewardship. Water testing and monitoring alone doesn't improve water quality; it is only a means for identifying problem areas. Solutions require more expertise, time, and economic resources, which demand more attention from the already overburdened CC Vicos leaders.[105] Promoters' measurements of alkalinity and conductivity turned out to be unnecessary for pressuring mines during contract negotiations because Vicosinos could focus on remittance for land use rights and apply sufficient pressure by closing the mines when making demands.

The context within which negotiations with mines occurred was also relevant in shaping the outcomes. Assemblies tended to focus on decisions using an either-or, yes-or-no vote. At assemblies I observed, the comuneros voted by sector with each sector contributing one unified vote. Sometimes the votes were held by voice, so the sector's "vote" actually reflected the loudest set of voices. This created ample opportunity for a few vocal individuals to influence decisions disproportionately, a fact of which Vicosinos were aware. People were also sometimes agitated during assemblies, either because of their unhappiness with how things are being

[105] While some of these problems could have been addressed by state agencies, it was clear that leaders would still need to spend time and effort to bring them to the attention of these authorities and apply pressure until they were addressed.

handled or because it was taking time away from other duties such as paid labor or farming. Thus, the assembly was sometimes a volatile decision-making body.

Because of these characteristics, the Vicos assembly was more conducive to achieving some kinds of solutions than others. Because there was concern about the process being hijacked by a few people's personal interests, sometimes the least controversial outcomes gained the most favor. Assemblies weren't conducive to coming up with nuanced plans, so when careful investigation and planning was needed, the community turned to committees, even creating ad hoc committees as needed for specific issues. But in the end, major decisions were always passed through the assembly. Finally, those who are included in this decision-making process are the registered comuneros, and so situations where comuneros stand to benefit directly are particularly attractive.

Thus, money distribution was an attractive outcome in the assembly context, and an example of how the assembly structures group decision-making. When mines pay cash and comuneros take it home, everyone at the assembly benefits equally. It's fair, it's transparent, and there's no chance the money will be stolen from the treasury or wasted in a poorly managed investment. There's also less responsibility placed on the CC leaders, and less liability for them to be accused of corruption or theft should something happen to the funds. Vicosinos I interviewed often commented that they'd like the community's income from mining to be invested in a community business or longer-term project that would have lasting benefits. But there were disincentives to using mining income this way, because of realistic fears that robbery, corruption, mismanagement, and jealousies would undermine such plans. Thus, while the distribution of money from mining seems to exemplify the epitome of economic incentives trumping environmental interests (and a lack of conciencia), assembly decisions should not be interpreted

as direct expressions of the collective will of Vicosinos. They are compromises made among diverse interests and within contextual constraints.

Vicosinos did not permanently institutionalize the stewardship practices begun during APS. Instead, concerns over water contamination were inconsistently addressed over the years, in competition with other kinds of concerns and priorities. As opportunities to participate in NGO projects and to benefit from mining grew, a new landscape of incentives emerged. How Vicosinos responded to these incentives was based on a combination of personal assessments of benefits, understandings (including misunderstandings) of NGOs roles, and relationships with mines. Further, courses of actions became appealing in a context shaped by Vicos institutional structures themselves, including the strengths and weaknesses of the general assembly as a decision-making body and the rotating cargo system which produced high turnover among community leaders.

The discourse of economic rationalism interprets campesinos as homo economicus: calculating actors who respond to incentives in ways that maximize the benefits to themselves. This discourse is often used to explain campesinos resource decisions, such as whether to monitor water or whether to work with mining. Vicosinos were, in many instances, calculating actors trying to maximize their benefits. It also seems that economic incentives were more compelling for Vicosinos than the idea of protecting nature as pacha or patsa mama. But whether seen as earth mother or an economic resource, protecting nature is only possible if it is compatible with livelihood and survival options (Bebbington 1993).

The example of Vicos shows complex and shifting contexts which were not conductive to applying a consistently ‘green’ economic rationalism. First, Vicosinos responded to the benefits they saw in working with Urpi and TMI on training. Later, they responded to powerful benefits

that could be obtained from nearby mining. These decisions sometimes appeared to reflect a green economic rationalism, as when Vicosinos voluntarily adopted water monitoring practices, made supervisory trips mines, and confronted mines about contamination. But at other times strategies appeared as an exploitative economic rationalism, such as when they focused on obtaining rents, projects, employment, and 'gifts' from both legal and illegal mining arrangements in exchange for permissions to use community lands. While economic rationalism clearly has explanatory power in these cases, it would have been difficult to predict how incentive options would change over time following APS. As a result of these changes some aspects of APS—such as dialogs with mines—were deployed for different ends in later years.

What this analysis of economic rationalism in Vicos leaves out so far is the ways campesinos were actively shape the landscape of incentives around resource use themselves. In the next section, I focus on Vicosinos not as 'responders' to incentives, but as creators of them. I describe resource regulation efforts in Vicos that illustrate how Vicosinos shaped incentives to produce their own kinds of idealized subjects within their population and among miners. These efforts directly influenced how natural resources in the community and the Honda Valley were used. These efforts also form part of the subject-shaping complex that often targets them with new concepts, understandings, and roles. Vicosino efforts to shape each other's subjectivity matter, not only because of the outcomes for resource use but because they reveal that environmental conciencia among Vicosinos is about protecting resources from the positionality of "community member."

Resource Regulation and the Creation of Incentives

Vicosinos discipline each other around resource use primarily through the CC government and its committees. I see their strategies as an attempts to cultivate subjectivities in each other. Since authority in the community rotates, a Vicosino may be temporarily in the position of doling out discipline, but he himself is also vulnerable to this discipline. The roles be reversed later when the next rotation of Vicosinos assume their cargos. Even when in power, leaders can be disciplined by the general assembly for failing to effectively fulfill their cargo. Discipline takes place primarily in the form of monetary fines, and thus applies economic-rational thinking to community control efforts. Fines punish those who cause negative outcomes for others in the community. Their punishment becomes a benefit to those they harmed when others consume the fine. CC Vicos leaders, sector leaders, and specialized committees all use fines to discipline residents and each other. Fines are imposed for any range of reasons including for failing to fulfill one's duties as a comunero, for abusing community resources, for failing to carry out cargo duties, and for poor behavior. Fines are imposed on comuneros and non-comuneros alike for breaking community rules, but as a comunero, one has additional responsibilities and thus is more vulnerable to fines. In this way, fines are a key way that Vicosinos act upon each other via their leadership institutions and direct each other's behavior while also shaping each other's subjectivities. Specifically, fines reign in the perceived individualistic, self-interested impulses of fellow community members—what could be considered their homo economicus tendencies—and redirects them towards the communal good.

Disciplining Vicosinos

Vicos has had some form of an irrigation committee since the 1990s, but as mentioned above, the role of this committee has been under intermittent revision. In the 2003 community regulations, the role of the Water and Irrigators Committee is summarized in one vague sentence: to "resolve conflicts related to water," and "be guided by the norms and rules approved by the general assembly." In the 2010 regulations (approved in 2008), the description of this committee takes up several pages and 23 separate articles that outline the validity of the committee, its specific tasks, who is qualified to be on it, to whom it reports, the sanctions for failures, etc. The new set of regulations implemented the turn system and made explicit the conditions under which Vicosinos could be charged with fines.

One notable change regarding resource management was a new rule adopted in 2008 by the CC assembly which designated which days of the week households could irrigate their fields depending on their location. Prior to this turn system there had been conflict and fighting over water. The turn system was intended to reduce this conflict, and ensure that everyone had a fairer shot at getting water. Irrigating out of turn resulted in a significant fine, reported to me as 100 soles in 2010, or about 35 USD, and the equivalent of two to three days of paid unskilled labor. The same amount was imposed for polluting the water (e.g., throwing dead animals or trash in the irrigation ditch), or for wasting water (e.g., letting it flow away wasted while irrigating). In interviews, some Vicosinos attributed the loss of villager respect for water to the arrival of potable water systems. Middle-aged community members talked about how clean the irrigation ditches used to be when they were children, back when they had no other source for drinking. Now, household water taps are common. Current habits of throwing trash into rivers and irrigation canals caused community health concerns, especially for households where potable

water was not reliable. Depending on the particular water source to which they were connected, Vicos households often suffered inconsistent access due to pipe breakages or scarcity. Households might find themselves without water for days, causing some to cook food with the irrigation water they knew to be filthy. Thus, while the arrival of potable water reduced some of the incentives for keeping river and irrigation water clean, it was still important (for some households more than others) and the fine system created a new disincentive to counteract abuses.

The formation of the Water and Irrigators committee was an important mechanism for getting people to 'respect' the water again, although this respect was clearly still a work in process. Sofia, a mother in her 30s, sat on the front porch of her house in Vicospachan helping her children put on their shoes for school while I interviewed her. She commented that it used to be the "community's mothers" who would go around making sure no one polluted the water and imposing the fines. Now, with a new generation of mothers ("the daughters-in-law"), women washed diapers in the streams.[106] While she was the only one I interviewed who referenced an earlier form of respect enforced by mothers, what was clear across interviews is that a context of increasing "disrespect" for water led comuneros to adopt a new form of regulation and discipline in Vicos. In the words of Adriana, a woman from Cachipachan in her 30s, "They used to throw dogs in the water, too, *mami*. Since this committee has been formed, there's respect.[107]" The Water and Irrigators committee prevented these abuses through the application of fines.

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[106] "*Puntataqa ari mamantsikkuna keno comunidadkunacho allapa ashiyanaq yakukunata, prohibiyarqa rakchateta multa karqa, kananna llumtsikuna qepata shamun jenam susiatayamun limpu ayunkunatapis taqshakur, a veces mana multa kaptinnam mantsakuntsiktsu y keno sucio yaku kakun" [Antes nuestras mamás en la comunidades buscaban mucho el agua, prohibieron que ensucien, hubo multa, ahora atrás ya vienen las nueras por eso ya ensucian lavando sus pañales, a veces cuando no hay multa no hacen caso y así sucio esta el agua]*

[107] "Allqukunatapis ari mami yakuman jitaliyaq je comité formakanqanpitataq respeto kekanje"

Fines were important tools for getting people to show "respect," and not just in relation to the uses of water. Vicosinos communally own eucalyptus stands that were originally planted during the Cornell project era, and have since increased these. Those who poach trees from these community-owned eucalyptus forests face a fine, and I observed this punishment enacted by the CC leaders during my fieldwork. The community also assigns cargos called *Tapaqs*, or *Tapakuqs* (guardians). A Tapaq is expected to patrol community lands, preventing theft and reporting problems. The Tapaq role was explained to me as being "very old," dating back to Hacienda times. But in recent years, the Tapaq has come to be responsible primarily for guarding the eucalyptus groves. Tapaqs report people who damage or steal from these forests, and the CC Vicos issues a fine against them.

Members of the Water and Irrigators committee described the fine system to me as a form of "discipline" (*disciplina*) that helped ensure comunero compliance with responsibilities. CC Vicos also uses fines to discipline fellow comuneros in ways not directly connected with resource management. Fine are imposed for breaking community rules, and are also used to mandate participation in community activities such as work parties (*faenas*) and assembly and sector meetings. A comunero assigned to a cargo is vulnerable to additional fines designed to discipline into properly satisfying his duties. A member of a specialized committee will be fined for missing a meeting. These are typically small fines of just a few soles, and they get spent by the attending members on refreshments. In this way, fines imposed on noncompliant comuneros are consumed for the benefit of compliant ones.[108] Fines redistribute wealth and ensure that when one person's actions negatively affect others, compensation occurs. When I asked the 2010

[108] Each committee has a fund, and fines are paid into it while refreshments are paid out of it. When sitting with committees during meetings, I was offered refreshments with the explanation that these were paid for by those who weren't in attendance, who would later be fined.

leaders what would happen if a comunero refused to pay his or her fine, I was told that the comunero would be 'kicked out' of the community (although I was quickly assured that that had never happened). Later, I found out that the fine can always be deducted from payouts to comuneros during distributions of income from mining, tree sales, or from the hot springs business Vicos owns.

The Peruvian state is also a source of fines. Several individuals I interviewed claimed that they would personally be fined for breaking state prohibitions on resource use. These included burning pastures, cutting down native trees, and harvesting wild herbs inside the national park boundary. This didn't mean that they necessarily refrained from the prohibited activities; in fact, in the words of one woman, "we have to remove the herbs while hidden) "*escondido tenemos que sacar."* Interestingly, no one I interviewed in Vicos reported having actually been fined in this way, but rather expressed a fear of being fined which shapes their behavior. Fines are also issued by the forestry department against those who sell lumber from unauthorized forests. Because of this threat, the CC Vicos was in the middle of developing a Sustainability Management Plan for their forests during 2010, so they could legally sell the wood from their eucalyptus groves outside of the community. Fines are thus multi-directional, and effective methods for shaping Vicosino behavior.

I understand Vicos fines as internal mechanisms for shaping Vicosino behavior and subjectivities towards "respect" for community rules, common pool resources, and the community itself. And older Vicosinos I interviewed remarked that in his youth, fines didn't exist. Now, a new generation lives in a new kind of community: one with more people competing over resources, more modern amenities such as tap water which changes people's regard for rivers, and one where individual opportunities compete with groups priorities.

Governmental regulation of Vicosinos by Vicosinos has entailed disciplinary measures and new institutions such as committees but also draws on much older institutions such as the Tapaq. Each of these has be re-indigenized by Vicosinos to reflect their current reality, redirecting individual impulse back towards the greater communal good.

Disciplining Mines

Fines are central to how Vicosinos interact with mines. Vicos will fine mines for contractual failures, such as failing to finish a construction project that has been promised in the annual contract, or for spills and environmental damage. When leaders make supervisory trips to see mines in operation, and will fine an operator if they find the area disorderly or dirty (and providing sanitary services and waste collection at mine sites has been a concern). According to Vicosinos I interviewed, Vicos regulation of mines has been important for ensuring that waste doesn't "flow down" from the mines into the community. As described previously, the comuneros organize strikes by shutting down the road to and preventing a mine from operating. This is an effective way to force a collective will upon the mine companies, even when the company officials see Vicos claims as illegitimate. Mines cannot operate if CC Vicos does not grant permission, so this technique allows CC Vicos to extract fines from mines for misconduct based on the community's own evaluations.

This dynamic can be illustrated with a strike that occurred during 2011, while I was living in Vicos. Comuneros reported to the CC leaders that the mine Toma La Mano seemed to be operating outside of its concession area. The concession area is defined by state permissions, but the mine operators had also obtained permission from Vicos, via the annual usufruct land use contract, to excavate within the concession. The mine's new activities were located close to a

river and were therefore an environmental threat, and were inside the National Park boundary as well. These points were brought up as Vicosinos planned a strike. Vicos leaders used state-of-the-art electronic surveying equipment (a Total Station) to verify the exact location of the activities and compared these results with a map of the mine's concession they obtained from the office of Energy and Mining. In this way, they were certain that the mine was out of its concession area. Following a general assembly meeting, leaders sent a letter to the mine announcing a fine in the amount of two million USD for being "out of its area" *(afuera de su ambito*). Comuneros also commented that this strike was for 'noncompliance with the community' *(incumplimiento con la comunidad)* as well as 'environmental impacts' *(impacts ambientales)*.[109]

The mine operators explained to the community that in order to access mineral inside the concession area, they need a route that was partly outside the concession area. They argued that their activities were in violation of neither Peruvian law nor their contract with the community.[110] The comuneros set aside the question of Peruvian law and asserted that they were in violation of their agreement with the community because they failed to properly inform the community if these new activities. The mine operators pointed out that it was mentioned in the most recent contract. Still, comuneros felt tricked, accusing TLM operators of sneaking this information into the contract without fully informing the community. Eventually, comuneros settled for a much smaller amount from Toma La Mano after several months of strike and repeated negotiation meetings. Part of the reason for compromising was pressure from the many

[109] These two phrases were used by leaders during the assembly meeting, while the phrase "estar afuera de su ámbito" was taken directly from the community's letter to the mine operator.
[110] I was unable to confirm whether Toma La Mano obtained the proper permissions, which in this case would include permissions from the National Park as well as DREM. However, the general logic of their argument regarding their rights to access underground parts of the concession via routes outside the concession is valid.

comuneros who were out of work during the strike, and thus also losing income. After paying the fine, the mine was allowed to resume operations at their new site. This process illustrates how Vicos comuneros defined the violation and the sanction, but no cleanup was required in the conditions the community set for allowing the mine to resume operations.

The strike against TLM illustrates what state agents see as a 'lack of conciencia'. The director of the National Park commented following this event that he was increasingly dissappointed in Vicos because of the way Vicosinos organized to make gains at the expense of the environment. There was no reason why Vicosinos couldn't also request, in addition to the cash payments they demanded, the TLM remove waste near the river. But they did not.[111]

Vicosinos did, however, make other demands that mines change their practices out of concern for the environment or to mitigate environmental impacts. In an earlier contract, the community required that the mines file an EIA.[112] They also closed mines when they perceived that the mine was in violation of its EIA. They required that mines install better hygienic services for miners (latrines, etc.) and began requiring that trucks cover their load when passing through the community to prevent spills. Most recently, they had demanded that both TLM and Caudalosa share responsibility for wetting the dirt road they used to transport minerals. Watering the road was important for the reduction of dust which covered nearby plants and animals and made it difficult to breathe. This dust was a widely-perceived source of pollution by Vicosinos, and one did not have to have a scientifically-formed view of contamination in order to experience the choking effects. Thus, Vicosinos were making some environmental improvement

[111] Some CC leaders I spoke to thought cleanup should have been required, but it wasn't made explicit in the resolution process, which focused on the fine amount and payment.
[112] This is also required by the state once a mine reaches a certain size.

demands on mines that corresponded to the impacts they perceived to be the most problematic to their lives.

The strike also illustrates ways that regulation of mines in Vicos paralleled state-led environmental regulation. CC Vicos drew on some aspects of state authority when managing mines, although they did so apart from state regulatory efforts. CC leaders compared the mine's activities with what was authorized in documents they obtained from DREM, carefully measuring TLM's activity to confirm that it was out of its concession. They also referenced the mine's EIA and National Park restrictions as further evidence that TLM was in 'violation'. While Vicos leaders didn't coordinate with DREM or Park authorities directly, leaders referenced the authoritative power of these documents and institutions in bringing their case against TLM. The outcome of this particular conflict did not include any environmental mitigations, but it does show how the CC Vicos government incorporates some state-like mechanisms for regulation their property for their own purposes.

When a comunero fails to show up at a required meeting, he is sanctioned for poor conduct with a small fine that his fellow comuneros use to buy snacks, thus consuming his fine in the course of fulfilling their own duties. When the fine money from mines was immediately distributed to the comuneros present at the assembly, it reflected a similar logic. Mine officials complained to me that Vicosinos divide up these payments and waste them by drinking and celebrating. One mine representative remarked to me that they 'eat their children' (future).[113] Setting aside the fact that these generalizations are wrong (I know of households where Vicosinos used their share of Toma La Mano's mine payment to pay for their children's

[113] *'[They use mining money] para su aniversario, para chupar. Para comer sus niños.'* I interpreted this comment to mean that they eat their (children's) future by wasting money on parties, based on the context of the conversation.

educational expenses), the use of mine money becomes a part of how 'conciencia' is evaluated. Mine operators characterized Vicosinos as lacking conciencia because of how they used the money from mines.

When campesino communities use pollution as a pretense for getting money from mines, it draws criticism from those outside the community. Actors that deal with environmental management from the state level also remarked on this 'problem' of campesinos accepting economic solutions to the environmental problems they raise:

> Companies make huge financial gains, and the campesinos object because they say 'they are using our land' and they demand that these businesses help them economically or with social services. they often mix other agendas for taking part in these gains with the environmental concerns. They'll say, for example, this mine is mining our land, they need to compensate us, and that's a way they can get their demands met. But then when they are satisfied with the mine's relationship with them, they drop the environmental agenda. So these environmental problems are really social problems. It's what they use to demand their rights. When they are well advised, agreeable, they forget about the environment. So it's really about the social issues: the respect, the compensation they want from these businesses [Interview with Rafaela, Consejo Nacional del Ambiente Ancash]

> Contamination in Peru, in peasant communities, is a business. If Antamina causes a spill, a truck turns over (and causes) pollution, the community says "environment" and then there are ecologists. The min pays, compensates them. In San Marcos, money is distributed among residents. In Vicos as well, as I understand. Or they spend it on fiestas. ... So, what do they do for the pollution? For remediation? They do nothing. Pardon me, but they do nothing. [Interview with Hernandez, Huascarán National Park][114]

When campesinos prioritize economic benefits over environmental solution to problems caused by mines, state actors interpret this as a lack of genuine concern for the environment. Campesinos may be acting in economically rational ways when they try to get investments from mines, but state actors want them to calculate 'the environment' as part of the stakes and

[114] "*Contaminación en el Perú, en comunidades campesinas, es un negocio….Si Antamina causa un derrame, una camión se voltea, contaminación. La comunidad dicen, "medio ambiente". Allí son ecologistas. Paga, indemniza. En san marcos, se reparten la plata entre miembros. En vicos también, tengo entendido. O lo gaste en las fiestas. O prestan plata. Entonces, que hacen por la contaminación? Por la remediación? No hacen nada, discúlpame, no hacen nada."*

incorporate better environmental outcomes into their calculations and their strategies. The green economic rationalism championed by many state officials incorporates more citizen responsibility and long-term planning to ensure environmental wellbeing far into the future. If campesinos only cash in on the potential economic benefits of mining, they are not acting with conciencia. In the two examples quoted above, state representatives draw the conclusion that the environmental concerns of communities are insincere, given that the communities are satisfied with a monetary outcome from their negotiations. Communities are thus construed as not truly caring about the environment.

I do not think this is the case. Instead, I found evidence Vicosinos did care about the environment, but only as one of many concerns. Fines are mechanisms by which Vicosinos actively shape the landscape of incentives for miners and each other in ways that result in inconsistent, but still important, environmental protections. While the Vicos governing system is qualitatively different from state regulation, there are some parallels, such as when Vicosinos use state concession documents to establish that a mine has violated its contract with the community, or when they insist that mines conform to their EIA. This suggests some internalization of state power and has resulted in some better environmental protection practices demanded of miners (such as watering down the dusty road). In other cases, it has not, as when Vicosinos ignored potential damage to the river in the resolution with TLM. The assembly seemed more focused on using fines to teach the mines to respect the community, showing they will not be '*engañado'* (cheated). Vicosinos also use fines to shape each other's subjectivities towards respect for communalism. Vicosinos are shaping themselves to share irrigation water more systematically and to respect common pool resources. These acts also have environmental protectionist outcomes, even if the result falls short of what National Park other state agents would prefer.

Situated Subjectivities and Environmental Perceptions in Vicos

In this chapter so far, I have focused on the performance of Vicos as a community via the general assembly and CC leadership. Comuneros, more so than other Vicosinos, are influential in shaping community institutions and resource management decisions. But one complicating factor behind the varied engagements with environmental stewardship in Vicos is the diversity across people's views of contamination, the state of nature, and what should be done about it. In this section, I address this diversity, including how it influences community-level decisions and practices and how it does not, and what different positionalities in Vicos illustrate about the potential for 'green' homo economicus subjects.

When I interviewed men and women from randomly sampled comunero households in Vicos, I found that awareness contamination (*contaminación*) was common among both bilingual and Quechua speakers. Almost 79% of those I interviewed through the random sample knew this Spanish word, and the term was widely incorporated into Quechua (likely due to lack of a corresponding term in Quechua). As one Vicos promoter explained: 'in Quechua we say *allapam contaminam*' (a lot of contamination). Similar to promoters elsewhere in Ancash, Vicosinos narrate themselves as 'being contaminated.' But, people mean different things when they talk about contamination, and emphasize a variety of concerns.

Many people claimed to be unsure of what contamination meant, although they knew that it was connected to environmental changes they observed and were able to give examples of it. Mining was the most commonly cited source of contamination, but it was also frequently mentioned that contamination could come from other Vicos activities, such as field fumigation, littering, and burning. Lack of hygienic services both at mine sites and in Vicos homes was also mentioned by many, although people remarked that this was improving as mines and households

added bathroom facilities and connected to sewer systems. Vicosinos also widely recognized their own contributions to contamination in the forms of household waste, use of pesticides, and complicity in the aforementioned activities. As Felipe (a promoter I introduced in Chapter 4) put it, "*estamos contaminando a nosotros mismos* (we are contaminating ourselves)."

Many Vicosinos associated contamination with illnesses affecting people, animals, and plants. They described how minerals got into the water, air and soil, then into pasture grasses and the animals that grazed on them, making animals and humans sick. Skinny animals, dead frogs and fish, reduced agricultural production, an increase in crop plagues, and weaker humans were all evidence of contamination given during interviews. One comunero remarked that contamination was itself like an illness, and caused new and different kinds of illnesses to be born in plants, animals, and people. Another said that contamination made young men like old men. During interviews I asked, separately from of my questions about contamination, if life in Vicos was better or worse than 'when you were a child', and 68% said it was worse. Contamination was the most frequent reason given for why.

About 21% of Vicosinos were unfamiliar with the concept of contamination. Some of these individuals expressed concerns such as reduced agricultural production or degraded water sources, but didn't see contamination as the cause. As part of my methods, I conducted oral history interviews with twelve older Vicosinos, as well as three workshops exclusively with Quechua-speaking women focused on understandings of water, land and environmental change. These contexts uncovered environmental concerns that I had not previously heard in any other interviews or contexts where promoters engaged. Women in workshops reported that the sky looked different, stars were smaller than they used to be, there were fewer clouds, and the sun looked gaunt. One older woman thought that environmental degradation was due to sin, and that

the community should hold a mass as an effort to improve conditions. Not framed as contamination, these kinds of observations indicated narratives otherwise absent from the contexts I observed where promoters negotiated stewardship concerns with other actors. I never heard them mentioned in Vicos community meetings among comuneros. Some of the things women said reflected what Urpi considers part of the Andean Cosmovision, but among CC Vicosinos institutions these views were not included. These kinds of interpretations rarely entered into the discussions where 'environmental issues' were addressed.[115]

A few Vicosinos I interviewed thought health and agricultural production were improving. They said that contamination had already been addressed or it wasn't a big problem in Vicos (for example because people now had trash pickup and sewer systems). These perspectives reveal that not everyone holds the same perceptions of contamination in a given place and some will not see it as pertinent. In one memorable encounter, I conversed with a comunero near the plaza about a principal tap water source in Vicos, Potaca. Isaac had recently presented the results of 2009 water test that showed lead in the drinking water. I was carrying buckets of clean water to use for cooking at my comadre's house because the tap water came from Potaca. Seeing me pass by, one man laughed and said, '*Con esa agua no pasa nada; plomo te da más fuerza!'* (That water won't harm you; lead gives you more strength!) and he raised his arms to show his muscles. I was unsure how much to read into what seemed to be a joke, but the moment

[115] I say 'rarely' because there were exceptions. In late 2010 members of a few sectors came together and organized a catholic mass specifically to ask for rain. They paid a priest to come from Marcará and hold this mass in their plaza church. The event was well attended, and remarkably, it did rain that afternoon. Vicosinos involved in requesting the mass said that such things 'sometimes worked,' especially if the people supplicated wholeheartedly. The mass indicates a different understanding of nature that, while clearly having validity in some contexts, was not as part of the activities of CC leaders or the promoters.

illustrates how contamination can be treated with flippant disregard when people do not perceive it themselves.

Vicosino views of the past and future are also relevant for understanding the conclusions they draw from their environmental perceptions. My interviews revealed pessimism regarding the future productivity of the land. Among those concerned about contamination, there was a widespread perception (an accurate one, I think) that it cannot be easily reversed. These Vicosinos therefore felt that it was unlikely that the environment would ever be like it was before, even with the best mitigation efforts. While this caused anxiety, it also influenced how people strategized about the future. A comunero in his 20s, one of the youngest elected members of the Board of Directors, didn't think agriculture would be a viable livelihood for Vicosinos in the future, and hoped to see the community invest in other areas, such as commercial forestry. One woman, a monolingual Quechua speaking mother, commented that in the future she imagined her children would have to live completely on welfare. If people think reversing contamination is an impossible or unrealistic pursuit, they are less likely to pressure their leaders over it. Instead, they might take advantage of cash remittances while pursuing new ways of subsisting within the environment they saw as inevitably degraded.

Lora-Wainwright et al (2012) argue that this perceived inevitability of pollution shapes how environmental subjectivity is enacted. In Baocun, China, villagers facing pollution from mines and fertilizer plants shifted their actions over time to focus more on gaining financial benefits rather than mitigating or reducing pollution. This shift resulted from their experiences with activism (which was contained locally), relationships to cadres (local leaders to whom villagers are subordinate), and relationships with a partially state-owned industry that played a role in national development. Protests against industry pollution came to focus on compensation and the

environment came to be valued as a source of profit rather than as a communal good to be protected. As residents obtained compensation, they no longer believed that local officials could demand less pollution. Villagers recognized that industry had benefits and drawbacks and therefore accepted pollution not due to lack of awareness or education but as a sacrifice. At the same time, villagers still resented environmental degradation and recalled a cleaner past. The subjectivities that emerged had repackaged their concerns about the environment with a sense of the inevitability of pollution (121). While there are important differences between this case and Vicos (Vicosinos are hardly subordinate to their local leaders), this study demonstrates that inaction about pollution does not necessarily indicate widespread ignorance of its risks. Instead, experiences gaining compensation can change views of the environment and lead to acceptance of the drawbacks of industry, including pollution. With diverse perceptions of the environment and differences of opinion about viable future livelihoods in Vicos, it is easy to see how an institution like the promoters would face varying levels of support. A concerted and consistent plan for addressing environmental wellbeing is, unsurprisingly, elusive in this context.

Conclusions

At the beginning of this chapter, I described Arturo, a Vicosinos who states that Vicos should receive monetary payments from the state in exchange for protecting water resources. The communal decisions carried out by CC Vicos reflect a similar tendency to see monetary potential in resources. This has led to both protection and exploitation of resources. The example of APS and its aftermath show that Vicosinos often act as homo economicus, but not always 'green' homo economicus. Economic rationalism is a discourse that legitimizes their resource decisions,

but green economic rationalism (which reigns in what can count as 'conciencia') does not always dominate, even though there is evidence that Vicosinos do care about the state of their resources.

The larger incentive structures around environmental stewardship during APS and the years following sheds some light on why. It is not due to lack of concern over environmental wellbeing, but a complicated outcome of combined internal (among Vicosinos) and external (with mines, NGOs, etc.) politics and relationships. One reason CC Vicos does not consistently perform green economic rationality because there is no common motivation in Vicos. The incentives facing Vicos are varied depending on who they are. People who expect to live an agricultural life in the future face different motivations than those who are actively looking to change their livelihoods for themselves or children.

While mine operators and state workers lament this 'miscalculation' (sacrificing the future in favor of present gratification), these decisions are less a matter of miscalculation and more a result of the characteristics of the CC structure and diverse positionalities of Vicosinos. Community decisions are shaped by individual and group struggles, and what tends to dominate in the moment is a common-denominator agreement, not the solution that 'everyone' wants. Rapid turnover in leadership also undermines longer-term planning. Comuneros are the ones who make the decisions about mining contracts and are the also the ones who stand to gain most directly from mining rents, thus solutions that turn conflicts and environmental damage into cash for comuneros are appealing.

I have also tried to highlight that while incentives around mining and NGO projects have shaped Vicosino decisions (and likely their subjectivities), incentives are not only used *on* Vicosinos in the interest of making Vicosinos good stewards (or even compliant with specific norms, laws or priorities), they are also used *by* Vicosinos to cultivate the kinds of relationships

that Vicosinos see as fair and viable to their livelihoods. Conciencia in Vicos is also about communalism, so Vicosinos set up disincentives through the CC government that punishes community members for overusing common pool resources or for failing to contribute to the community. Vicosinos are thus taught to 'respect' resources and the community. Likewise, fines teach mines to 'respect' Vicos. Fines are a central way that Vicosinos discipline mines, and fines have the added bonus of contributing to community economy. The discourse of economic rationalism fails to capture these complexities, including the ability of Vicosinos to reshape incentive structures that are aimed at shaping them.

Two insights can be gleaned the inconsistent stewardship patterns in Vicos. First, the case illustrates how economic rationalism, as a tool for creating conservationist behaviors, has limitations as the architecture for stewardship because it cannot predict changes in incentive structures and overlooks the diverse interpretations of incentives across a community. While using economic rationalism to motivate conservation is often construed as a matter of 'getting the incentives right,' this overlooks the ways that incentives are interpreted differently from different subject positions. Incentives don't simply exist, they must be assessed as such by actors. As a discourse, economic rationalism can thus lead to an oversimplified understanding of how incentive structures shape behavior and subjectivities. The initial assessment by NGOs that Vicosinos have a 'natural incentive' to protect resources didn't capture the complexity of the context within which Vicosinos made decisions about different water resources they controlled. Further, neither NGOs nor Vicosinos could have predicted the changes in the coming years (including the wealth brought by canon minero) which would increase the relative attractiveness of mining. NGOs were also part of the incentive structure that Vicosinos perceived, since working with an NGO was an opportunity for personal and community gain. These perceptions

led to expectations about Urpi's role in stewardship, which meant less incentives for CC leaders to be stewards themselves. When campesinos calculate their incentives differently than NGO or state actors do, they risk being seen as irresponsible or immoral in addition to being 'wrong' in their calculations, thus lacking conciencia. But it is clear that there are different possible interpretations of the incentives available, and their stakes.

Second, Vicos illustrates why it is important to approach environmental subjectivity as a heterogenous process, filtered through the multifaceted positionalities that people already possess. Vicosinos did not become environmental subjects en masse. One reason for this is that APS only trained small set of individuals. While promoter's subjectivities were affected, as a minority group they were not able to significantly sway the majority of voices in the assembly. Their willingness to be stewards was influenced by their subjectivity as comuneros who were expected to serve in rotating cargos. Across the Vicos population more broadly, diverse views of contamination reflected a context in which subjectivity varied widely in relation to the environment. While there was widespread concern about the state of the environment in Vicos, not all Vicosinos interpreted it as contamination or agreed on what would be the best course of action to address the situation. Some Vicosinos also thought that it would be difficult to change the course of environmental damage in the Honda Valley; others aspired to break with the traditional farming past. These kinds of subject positions affected what people were willing to risk.

But I do not wish to dismiss the important but more subtle changes to resource management that occurred in Vicos during and following APS. Community bylaw revisions demonstrate increasing attention to a variety of environmental threats, including pollution threats from the Vicos population as well as mining. These changes further suggest that some Vicosinos (at the

very least, those who were participating in the CC government) were applying a new conciencia of nature towards managing natural resources. This attention to protecting resources reflects some aspects of environmental subjectivity, particularly the view of nature as needing regulation and protection to mitigate degradation and scarcity. Following APS, environmental 'wellbeing' became a topic of governmental interest in a new way and was increasingly institutionalized. It is possible that reverence for patsa or pacha mama was stronger in the past, but new terms of environmental governance in Vicos made use of state-sanctioned language and forms of regulation, such as references to EIAs, and compliance with Sustainable Forestry plans. Although these changes were not consistent in protecting the National Park or even the local rivers, they do reflect a shift in conciencia.

Conciencia is a more flexible way of characterizing subjecthood that captures the partial and inconsistent ways that environmental subjectivity is cultivated among multifaceted subjects. The case of Vicos illustrates this, because the idea of conciencia in Vicos overlaps with environmental protection but also respect for community. The ways contemporary comuneros use economic incentives appears to cultivate subjectivity in this particular way. The incentive structures that Vicosinos have created for each other redirect individualistic impulses towards communalism, both in relation to resources and to each other. Exploiting a resource for personal gain at the expense of the group (threatening a tragedy of the commons outcome) is considered a 'lack of conciencia' among Vicosinos, but with a focus on their own community. Parallel to new relationships with mines that reflect an exploitative economic rationalism, the CC Vicos government also embraced a set of regulatory approaches to resources that targeted water, trees, and mines. Responding to a changing landscape of incentives, Vicosinos created new incentives for each other and for miners around the use of these resources. Economic rationalism was thus

deployed by Vicosinos towards their own imagined community along with a corresponding conciencia that was not strictly an 'environmental subjectivity' but which had overlap. These strategies reflect shifts in subjectivity among Vicosinos towards regulatory approaches to resources.

Chapter 7:
Conclusions

This dissertation has focused on competing ideas of what it means to be an environmental subject in Ancash, Peru, within the context of community-based environmental stewardship. This form of stewardship, which brings rural actors into deeper connection with new environmental discourses and with institutions such as NGOs, state agencies, and mine actors, tends to be perceived positively by both participants and their interlocuters. New stewardship roles are also desired by many campesino community members for the end goal of managing their resources and protecting nature on their own terms. However, this dissertation has shown that various actors have different ideas about what protecting nature means, who should take what kinds of actions to protect it, and for what ends.

Earlier chapters traced three discourses in circulation across the connections among NGOs, campesino communities, rural stewardship committees, government agencies, and mine operators. These discourses are each deployed in the contexts where environmental stewards are trained (workshops) and encouraged to act (community meetings, negotiations with mines, etc.) Each of these three discourses—the Andean Cosmovision, Technical Science, and Economic Rationality—presents a different set of assumptions about human-environment relationships with different implications for governing nature. These differences were sometimes concealed within the consensus frame of conciencia*,* and thus conciencia is made to mean different things in different contexts. However, the different assessments of conciencia by actors in Ancash revealed struggles over meaning and resources that affect campesino stewardship efforts and contribute to the disenfranchisement of some by others.

The idea of the Andean Cosmovision, which focuses the idea of conciencia on indigenous ways of protecting nature, reflects an idealized view of culture. Although based on the indigenous cultural history of campesinos communities, this discourse did not resonate universally with campesinos in the area. Vicosinos, for example, did not center community resource management on protecting "earth mother," and some even dismissed this concept as belonging to the past or to other places in Peru and thus not central to their autochthonous present. The ideas Urpi associated with the Andean Cosmovision were virtually absent during community meetings where environmental resource decisions were made in Vicos. While there were some Vicosinos who exemplified an Andean Cosmovision, including those who learned about it from Urpi, Vicos as a whole didn't consistently perform the ecological indigeneity of the Cosmovision. An unfortunate and unforeseen outcome of this mismatch is that it enabled some actors—I drew on examples of state actors—to interpret Vicos as lacking conciencia due to its cultural degradation. Vicos was sometimes explained as lacking the "culture" of water conservation associated with the Andean Cosmovision, and thus having both a degraded culture and a degraded environment.

Technical science is an authoritative discourse that many campesinos want to wield and understand, as it is the discourse that informs state-sanctioned means of measuring environmental wellbeing and mining impacts. But, this is also a discourse that can be deployed in ways that exclude campesinos, as when engineers circumscribe some spaces and topics as purely 'technical' (depoliticized) and best left to the experts. Impacted residents (campesinos and others) were distrustful of the supposed impartiality of science and of the experts (mine engineers, state officials) who were the bearers of scientific facts. Thus, while promoters were motivated to learn about scientific ways of evaluating the environment, they also recognized

science as a tool of the powerful. Non-experts and rural residents without much formal education were construed as lacking conciencia by some engineers because they didn't understand science. This allowed experts to avoid addressing the power relationships that underlie their exclusion. Further, when untrained campesinos cried 'contamination' against a nearby mine, it was sometimes interpreted as merely a strategy for getting handouts. But when engineers claimed there was no contamination, they presented this as a technical fact, separate from politics or strategies. Thus, some kinds of environmental discourse and some kinds of actors were more successful at depoliticizing their strategies than others. Through training, promoters learned some science but continued to express skepticism of expert opinions and challenge claims with their own experiential assessments of the environment.

Economic rationalism informs how vigilance committees and state and mine reps interact as well as how they evaluate each other's conciencia. Campesinos responded to incentives when dealing with both mines and NGOs, and they were clearly willing to see their land and resources in economic terms. Economic incentives shaped the decisions of Vicosinos when they chose to take cash payments from mines as well as when they chose to work with Urpichallay. But, Vicosinos do not make the same calculations about resource management incentives that state organizations like the National Park or the NGO Urpichallay want or predict. Vicosinos came to different conclusions about what was best for their community in the decade following APS, sometimes disregarding regulatory laws and environmental wellbeing. Thus, economic rationalism can lead to decisions that are seen as 'lacking' conciencia from outside perspectives. Vicosino decisions must be understood in the context of the relationships they've built over time, the insecurities they perceive, the incentives they and other have constructed, and the kinds of future they see as possible and desirable.

Environmental Subjects Reconsidered

My research approach enabled nuanced insights into how stewardship changed subjectivities, but these were not captured by the binary categorization of environmental subject or not, or even a continuum of environmental subjecthood. Instead, my analysis highlights the multifaceted subjectivities that shape how and when people perform as environmental subjects. Campesino promoters were trained with new skills, given new leadership roles and responsibilities, and exposed to new discourses of nature. While this placed them apart from their fellow villagers and allowed them to think about environmental problems differently, they continued to assert the importance of their own perceptions of their environment and priorities. For example, the subject position of 'being contaminated' shaped how they expressed their environmental subjectivity. It also set them apart from engineers who expressed an environmental subjectivity that prioritized scientific expertise, or from other situated actors such as Elena who emphasized the legal definitions of contamination.

My research thus illustrates that attention to broader, multifaceted subjectivities reveals more complex motivations for stewardship. "Caring for nature," proved to be a category laden with different meanings in Ancash. Future research on resource management patterns and environmental governance would do well to question how the actors involved understand environmental protectionism and what assumptions or pre-existing subjectivities they bring to new governance arrangements. This would mean moving beyond the mere identification of subjects who "care for nature" and include investigating what "nature" (or other key category) might mean to them, as well as what "care" for it would look like. Future studies of this kind could better reveal how epistemological differences underlie resource conflicts.

Vicosinos did not become environmental subjects en masse through community-based environmental stewardship, and the reasons for this include the diversity of positionalities and existing subjectivities among Vicosinos as well as the different incentives to exploit as well as conserve. Vicosinos assessed incentives differently than did the NGOs and state actors that assumed they would protect resources, and this is because of their particular subject positions which included interest in becoming a district, desires for cash income, and a need to teach mines to respect the community. Promoters in Vicos also entered the equation from the pre-existing subject positions of people who wished to invest in themselves through training, and who intended to serve their community. The case of Vicos shows how these pre-existing subjectivities influenced participation in stewardship over time and subsequently the environmental governance outcomes of stewardship.

Gender and Indigeneity

In addition to pre-existing subjectivities, diversity of subjectivities both shapes and is shaped through stewardship. By approaching subjectivity as multifaceted and evolving my research reveals how gender and indigeneity interconnect with environmental subjectivity in ways that would be invisible if these identities were understood as static categories. In the case of Vicos, the exclusive training of men as promoters was the most obviously gendered dynamic of environmental stewardship, even though the NGO Urpi did not intend to deepen any gendered inequalities (and actually seeks to empower women). Urpi worked with the CC government at first, and as a result, becoming a promoter was treated as a kind of cargo that only comuneros—a status that is overwhelmingly male-dominated—can take. This unintentionally excluded women from roles and training where their subjectivities would have been worked on and imbued with

more technical science content as well as more awareness of themselves as having 'culture'. Instead, this did not occur. Randomly sampled interviews and my workshops with Quechua-speaking women in Vicos revealed views of nature that were not present in CC Vicos and promoter activities. Although these views were not exclusively part of women's subjectivities, they were disproportionately communicated to me by women in Vicos.

Gender and indigeneity are both entangled with the content of Urpi's conciencia. The ideological constructions within the Andean Cosmovision associate women with pachamama and attribute a special relationship with nature to them. Gender, and the importance of women, is thus made central content of this particular version of environmental subjectivity. Within the Vicos community, however, these ideological constructions are not consistently embraced. Thus, even though women are asserted as ideologically important within the cosmovision by Urpichallay, their roles in Vicos are less central in the CC governmental decision-making units that have the highest authority over resources (although women are important contributors to household decision-making).

In contrast with what Agrawal argues about gender—that it "only to obscure the processes through which subjects are made" (Agrawal 2005, 197)—gender, indigeneity, and environmental subjectivity were co-produced the case of Vicos. When Vicos environmental promoters began their training, they began engaging with ideas from Urpichallay about gender, indigenous Andeanness, and the environment. They learned or built on their knowledge about earth mother, while at the same time they were reinforced for cultural practices like the rituals that Urpichallay valued. Their role in the community as promoters was also connected to a highly masculinized leadership space, where expectations about service to one's community is shaped by one's role as comunero, treated as a male role by default. APS thus created new local experts on

environment with cultural, gendered, and technical knowledge, so complementarity between men and women was both altered and reproduced with new content, as illustrated by the case of Sara and Armando. While some women in Vicos were trained in high numbers in other NGO projects, and promoters from other communities were sometimes women, in the case of Vicos the combination of community dynamics and NGO strategies shaped Vicos men and women differently.

Indigeneity was also entangled with environmental subjectivity, not because indigenous people were more likely to become environmental subjects in this particular case, but because those who were trained as promoters were more likely to adopt new notions of indigeneity through exposure to Urpi's messages. As promoters learned about the Andean Cosmovision, they began to use Quechua concepts and practices in ways connected to pan-Andean understandings, while others in the community saw these concepts as part of the past or not autochthonous to Vicos. Thus, attempts to create environmental subjects of a particular type also created indigenous subjects of a new type, specifically ones who self-consciously identified with aspects of their culture that connect them to a broader cultural movement. But again, these ideas about culture were unevenly embraced among Vicosinos.

These dynamics of gender, indigeneity, and conciencia would not be apparent if gender and indigeneity were assumed to be static categories that either correlated, or not, with people's degree of environmental subjectivity. I thus argue that other aspects of subjectivity are not separable from the content of environmental subjectivity. Rather, when people become environmental subjects, this new aspect is folded into their already-existing multifaceted subjectivity. By paying closer attention to the positionalities of those who are guided towards environmental subjectivity, like promoters, these dynamics become apparent. I thus argue for

ethnographic studies of the content of environmental subjectivity, with attention to the various ways people situate themselves in relation to nature and to each other.

Ambivalent Stewardship

The adoption of new regulatory practices at the level of the Vicos community government and widespread critiques of mining impacts indicate that many Vicosinos do "care about the environment" (Agrawal 2005, 162), but this concern was contextually expressed and sometimes in competition with other interests. I found that the category of environmental subjectivity did not sufficiently capture the complex ways that agency was expressed through multifaceted subjectivity among Vicosinos. People in a variety of life situations in Vicos embodied some orientations towards protecting nature, but also embodied different personal interests and opinions of how and under what conditions nature should be protected. The ongoing efforts to shape campesinos subjectivity towards environmentalism has therefore produced mixed outcomes in Vicos. None of this can be captured if analysis focuses on the mere identification of subjects as 'environmental' or not, even by varying degrees. My analytic approach addresses this apparent "ambivalence" towards community stewardship.

The concept of ambivalence highlights the shifting and uncertain aspects of Vicos subjectivities in relation to environmental protection. In characterizing Vicos as a case of ambivalent stewardship, l hope to challenge dichotomous understandings of actors in conservation contexts as exploiters or victims, threats or protectors. Vicosinos embraced aspects of both. Via their community government, they became more involved in the exploitation of resources in new ways by working more closely with mines and even collaborating with new illegal mines. The CC Vicos government also adopted new kinds of regulation and protection of

resources, in the form of community rules about mining and villager use of resources. The Vicos government responded with flexibility to a landscape of shifting alliances and incentives that included NGO projects, regional-level policies, economic opportunities, threats and benefits from mining, and various interpersonal relationships among community members. These factors influenced when and why different stewardship activities (such as water monitoring, or fines for water pollution) seemed like a good strategy to comuneros.

The concept of ambivalence has some advantages over recent approaches for framing questions about subjectivity and environmental protection. First, ambivalence provides an important counterpoint to common idealizations of subjects or institutions eager to protect nature and defend resources. Idealizations such as the "ecological native" remain potent images for various publics and scholars, in Peru and elsewhere. But these idealizations fail to capture the complex realities faced by indigenous communities that must balance different livelihood pressures and may also be internally divided due to conflicting interests and circumstances (Conklin and Graham 1995; Doane 2007). Conversely, efforts to protect nature are sometimes taken up by institutions that occupy contradictory places in the public imaginary, such as mines. In this dissertation, mine engineers think of "protecting nature" as conforming to the national standards for minimum impacts, but this was inadequate from the perspectives of campesinos living nearby (see also Li 2015). As one person's idea of protecting nature will not necessarily match another's, a focus on ambivalence allows us to ask what these incongruities produce.

Second, ambivalence provides an opportunity for rethinking the role of "resistance" in contexts of development, governance, and conservation. Resistance has been an attractive category for social scientists who wish to identify agency through the innovative ways people undermine the agendas of those who seek to control them. However, by construing actors as

"resisting," scholars assume their subjectivities reflect opposition to development or to conservation, when in fact their actions are locally produced and might not reflect a generalized rejection of development (Shepherd 2004, 245). Further, as Mahmood (2005) argues, the very category of resistance risks imposing "a teleology of progressive politics on the analytics of power" which "makes it hard for us to see and understand forms of being and action that are not necessarily encapsulated by the narrative of subversion and reinscription of norms" (9). Ambivalence better acknowledges the complexities and inconsistencies intrinsic to multifaceted subjecthood. As would-be stewards are targeted with projects that seek to cultivate or rework their priorities, their engagements with these might be strategic or haphazard expressions of agency. Attention to contexts of political instability, mixed incentives, misunderstandings, and epistemological divergences can help explain what produces the acts commonly 'read' by scholars as resistance. By capturing acts that appear as resistance and those that appear as cooperation within the same frame of analysis, future scholarship could further illuminate how and when multifaceted subjectivity leads to environmental protection.

In the case of Vicos, ambivalence over stewardship comes to light most starkly over the long term, in the decade following APS. The NGOs hoped to empower a community and its members to sustain new stewardship activities on their own, but over time these activities reflected different strategies. During APS, Vicosinos seemed well positioned to protect nature from mining, but the priorities of the community government continued to evolve. During strikes against mining companies, the community sometimes appeared to fit the trope of "indigenous people defending nature" because of the concerns they voiced about pollution. But the resolutions and recurrences of these conflicts revealed that pollution was just one aspect of the relationship with mining that Vicosinos sought to shape. Positioning themselves as victims of

mining was a strategy that, at punctuated times, allowed them to engage in wider networks of assistance. A longer timeframe reveals these multiple changing and contextual factors which produce ambivalence. Future research using long term fieldwork and qualitative data collected at different times and contexts could reveal a fuller spectrum of subjectivity expression in similar cases, and reveal the relative endurance of stewardship practices.

Towards New Analyses of Environmental Governance

Studies using Foucault's governmentality (such as Agrawal's) have tended to interpret decentralized neoliberal environmental governance techniques as effective for extending control over rural and marginal individuals and environments, bringing them in line with a singular, state-sanctioned logic of regulation. However, stewardship arrangements in Ancash brought together multiple logics (as discourses of conciencia) and opened new possibilities. These included new ways of contesting state and mine authorities by asserting an experiential expertise, conceptualizations of self as indigenous Andean, and evolving mechanisms for disciplining fellow villagers and mines around resource use. Different agents involved in stewardship, including mine engineers, campesinos, and NGO actors, put forward discourses of the environment strategically when arguing for or enacting new forms of regulation. The three discourses I analyzed illustrate that there is more than one rationale that motivates the protection of nature, and there are different sets of practices which can be interpreted as protection. These include making ritual offerings to water when testing (Andean Cosmovision), confronting mines with fines over damage done to nature (Economic Rationalism), and turning to experts and state authorities for solutions (Technical Science). Actors continuously re-situated themselves in different ways with respect to the discourse on offer, and the multiplicity of discourses available

has empowered campesino actors differently: promoters adopted ideas of pan-andean identity, other comuneros used economic rationalism to justify how they disciplined mines, and some groups, such as non-comuneros and Quechua-speaking women, tended to be left out.

I have shown how environmental subjecthood emerges from contexts where subjects are already situated in gendered and hierarchical relationships with each other, their communities, their localities, and authorities. These contexts are formed through historical processes and constitute more than just a backdrop upon which new technologies of government come to be embodied; they directly influence who has the opportunity to become an environmental subject, and how. These variations should make scholars reconsider whether government in the Foucaultian sense entrenches power in such a way that it creates the coherency necessary for effective resource control; it may in some cases, but in Ancash, effective resource control according to any one specific agenda was persistently elusive.

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