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PEOPLES KNOCKING ON HEAVEN'S DOORS: CONFLICTS BETWEEN INTERNATIONAL ASTRONOMICAL PROJECTS AND LOCAL COMMUNITIES

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ABSTRACT

The contemporary world is strongly shaped by the complex links between the local and the global in the present phase of capitalism. This scenario is essential for understanding cultural dynamics, including those that are of main interest for cultural astronomy. Nevertheless, the special epistemic status that is usually assigned to academic astronomy helps hide the power relations involved in public debates about the knowledge of the sky. In this context, the recurring conflicts between large international astronomical enterprises and local communities are special situations that bring these disguised aspects of astronomy to light. Therefore, our work draws on these clashes to discuss the tensions among different notions of celestial space, knowledge, territory, public interest, and identity, taking as a case study the rising controversy relating to the construction of the Thirty Meter Telescope (TMT) in Hawai'i, within the context of the XXIX General Assembly of the International Astronomical Union. Also, we analyze the specific role of cultural astronomy in these types of conflicts, which once again demonstrates the political character of all knowledge.

KEYWORDS: Mauna Kea conflict, TMT, power, colonialism, Hawai'i, astronomy and politics

1. INTRODUCTION

The purpose of our work is to examine the conflicts around the installation of the Thirty Meter Telescope (TMT) at the summit of Mauna Kea volcano, in Hawai'i, as a case study. Our intent is to focus on these events not so much because we want to discuss them in detail but because we see them as a clear example of a very frequent type of conflict (Mizutani, 2016; Redfield, 2002; Swanner, 2013, 2015) that evidence hidden aspects in the construction of astronomical knowledge.

These conflicts are linked, on the one hand, with an academic astronomy that demands increasingly larger and more complex facilities for its observations. Also, due to their cost and the skills needed to build and operate them, such equipment requires international efforts. These ventures are marked by globalization in terms of financing, the management of knowledge, and the construction of public agendas. International organizations, governments, companies, foundations, universities and research centers draw up long-term plans and build timetables and agreements. Technical needs and the necessity of dark skies push these ventures into marginal places in nation states, generally linked to mountainous land. These areas are conceived by the agents as true "deserts", spaces to be "civilized" and with no other human interests that could become an obstacle to their objectives. In this sense, the large astronomy consortiums resort to imaginaries similar to those used by international extractive industries like mining, oil, intensive farming, timber, etc. They were established as tropes of the Enlightenment discourse during the colonial expansion of the European countries and the ensuing nation-states (Wright, 1998).

On the other hand, many local communities see these high-elevation areas as powerful spaces, strongly linked to their relationship with the non-human world, especially with the celestial beings. For them, these territories are not conceived as "abandoned" or "devoid of interest"; on the contrary, they are full of meaning. These same communities tend to be sub-alternized (Mignolo, 2000) sectors of the national societies in which they are inserted, that is, they are populations that have been pushed socially, politically, and geographically to the margins by the hegemonic power structure, in general, through the combined use of physical violence and economic, political, and cultural oppression. This usually involves constructing an image of these human groups that assigns them a kind of "moral failure" for their "lack of development" and condemns them to stay in the past if they want to retain their "identity." With a limited capacity to mobilize financial capital and political pressures, these communities experience the installation of astronomical projects as an imposition, a source of internal tension and division, and another type of colonial domination. Notwithstanding this, international consortiums and associated scientists present their projects as "non-political" efforts that help bring people together from different places and unite them in a major and "universal" objective free of mean interests.

2. MATERIALS AND METHODS

Our work is based on fieldwork conducted in Hawai'i during a journey there to attend two academic events related to cultural astronomy. As an astronomer and a member of the International Astronomical Union (IAU) I was given a travel grant to speak about the astronomies of Argentine Chaco groups and about issues relating to the notion of astronomical heritage of aboriginal groups at the IAU XXIX General Assembly, held in Honolulu, Hawai'i, on 3-14 August 2015. As an astronomer and anthropologist I was invited to participate in the organizing committee of the "Hawaiian, Oceanic and Global Cultural Astronomy: Tangible and Intangible Heritage" Conference that took place in Hilo, on the Big Island of Hawai'i, from 16th to 20th August. This last meeting was organized on behalf of the International Astronomical Union (IAU)'s Working Group for Archaeoastronomy and Astronomy in Culture (WGAAC), the Center for Astronomy and Physics Education Research (CAPER), the 'Imiloa Center in Hilo, and the Society of Māori Astronomy Research and Traditions (SMART).

In this context, I conducted ethnographic fieldwork especially in Hilo and Honolulu, using unstructured interviews and participant observation. I worked with local residents from different ethnic and social groups, both men and women. I did the same with astronomers attending the above events, and also included an autoethnography of my own experiences as an astronomer and anthropologist with a travel grant. Specifically, I worked with people related to the TMT Project who were in Hawai'i at the time, and with members of opposing local movements. I also examined several academic works (Casumbal-Salazar 2014, 2017; Herhold, 2015; Karube 2016; Miller 2016), journalistic articles, and discussions on the social media by people from both sides, as well as by astronomers attending the congress and who had no direct relationship with the TMT. I endeavored to approach the conflict from an in-depth historical perspective linking it to the colonial process in Hawai'i (Said, 2008) and the history of the observatories themselves (Parker, 1994).

This General Assembly of the International Astronomical Union in Honolulu, the first general assem-

bly held in the United States after a long time (25 years), was what Mauss would call a "total social fact" (Mauss, 1923-1924); in other words, a situation where the multiple tensions and dynamics that organize a given social world converge and come to light. Its symbolic importance was very clear for the meeting organizers, for those responsible for the TMT project, and for those who oppose it. Therefore, I felt it was particularly relevant to conduct ethnographic fieldwork during the Assembly. There were two critical and contrasting events from a symbolic point of view - first, the letter that was sent by the Assembly organizers to all participants before their arrival in Hawai'i, and second, the massive demonstration of protest against the TMT held in Honolulu in the weekend halfway through the IAU meeting.

3. RESULTS

In fact, for the vast majority of astronomers attending the IAU meeting, these two critical events were their first encounter with the TMT conflict. The first took place on July 29, just before their arrival in Hawai'i. The IAU had sent an official letter to the attendees to warn them about the conflict, the IAU position, and how to act before being approached by the local people. As regards the first of these topics, the letter summarizes the conflict and the history of Hawai'i using a "neutral" language, which from the very start seeks to place the IAU as an institution that does not take sides. However, the text attempts to give the impression that the TMT Consortium fulfilled all the "*necessary steps*" to obtain the construction permits, and that the opposition consists only of "*some local groups.*" Furthermore, it describes the significance assigned by opposing groups to Mauna Kea volcano –where the telescope is to be erected- in a very vague and imprecise way. Concerning the IAU's position in the conflict, the letter says that the institution is unable to pronounce itself "*by statute*" and that it "*welcomes all technological development and scientific progress*" and "*respects all cultural traditions around the world, including the views of those who regard Mauna Kea as a sacred cultural site*" (Kaifu, 2015, 1-2). However, the enormous amount of argument given to support the position of the TMT and the lack of clarification on local claims says otherwise. As mentioned, the third objective of the letter is to give some advice to the participants on how to talk to the Hawaiian population or the media about the TMT conflict without involving the IAU: "*During your stay, you may encounter members from the local community or the media with questions regarding the issues around TMT and Mauna Kea. You are welcome to talk to these individuals; however, we politely ask that, should you decide to do so, you clearly state your opinions as your personal ones or those of your organization. The IAU has also arranged a press office for you to direct any inquiries or questions you may receive from the press regarding Mauna Kea.*" (Kaifu, 2015, 2)

The language used in the letter propounds as "common sense" the idea that astronomy, as conceived by IAU professional astronomers, is a universal and transcendent human endeavor whose participants should not become involved in mean political and economic interests. This notion of a "neutral" science in political, economic or cultural terms has largely been rebutted by contemporary studies (Harding, 2008; Mignolo, 2000). It is especially strong in academic astronomy and implies assigning a "rational", "generous", and "transcendent" discourse to "science", and an "emotional", "mean", and "local" discourse to the "others." As already stated, this involves age and gender metaphors (Haraway, 1988; Harding, 2008; Mignolo, 2000) that put those who do not support the academy demands in a feminine and childish position and therefore seemingly in need of guardianship. In fact, the astronomy meetings mentioned were also disturbed by public accusations of sexual abuses within the context of the academic astronomy community (Anon., 2015; Witze 2015).

The second of these critical events occurred on the Sunday of the weekend halfway through the IAU General Assembly. A massive street protest was held in Honolulu that day. Thousands of people walked the streets with posters, showing their opposition to the installation of the TMT but also pointing out that this did not imply being against science. Many protesters wore traditional clothes, also carried flags and shirts associated with the movement that seeks the restoration of the Hawaiian monarchy. Throughout their demonstration there were numerous ritual performances, offerings to Lili'uokalani, the last queen of Hawai'i, and dances before members of the royal family and traditional authorities.

Our fieldwork during the protests revealed that participants shared three key arguments to oppose the TMT - environmental impact, cultural impact, and the lack of prior and informed consent. These same reasons were identified at other times while conducting our fieldwork among the local opponents to the project. They are also consistent with what other authors have disclosed regarding the controversy (Casumbal-Salazar 2014, 2017; Herhold, 2015; Karube 2016; Miller 2016).

As to the environmental impact, the interviewed people stated that several studies had already proved that the existing observatories had a negative impact on indigenous species and the quality of the water at the summit of Mauna Kea volcano. In this context, the TMT was pointed out as an additional factor of environmental pressure. With regard to cultural impact, the demonstrators underlined the

sacred nature of Mauna Kea for the Kānaka Maoli. They alluded not only to specific summit landmarks but also to the cultural landscape itself and its relevance for the bond with the non-human powers that ensure the sky-Earth connection. In such a context, a new telescope was seen as a lack of respect to that sacred nature. Finally, there were numerous statements and spontaneous references to the lack of consultation and lack of compliance with prior agreements. In all these cases, participant observation helped confirm that opposition to the TMT project related to a much broader scope and that the astronomical project was seen as an iconic expression of the Kānaka Maoli oppression.

Another aspect of our fieldwork involved looking into the conflict inside the IAU General Assembly. We were able to check that participants viewed the budding conflict as a topic of interest. Several comments were made by congress participants along the corridors or published on the newsboard, and also mentioned in the discussions on various online astronomy forums. We should point out a greater interest from young astronomers, many of whom were surprised because they ignored the issue and its scope. Some were sensitized by the project opponents' demonstrations and wanted more information. Notwithstanding this, it is worth mentioning the lack of official debate on the topic during the meeting, although the conflict was already known at the time of selecting the venue.

4. DISCUSSION

4.1. The Longue Durée of a Conflict

The IAU letter to the participants included "*a timeline of some of the events pertaining to Mauna Kea*" (Kaifu, 2015, 6). This brief outline, starting in 1968 as a milestone in the creation of the Mauna Kea telescope complex, presents the background of this undertaking as an almost fully harmonic development. It only alludes to a conflict in the 1990s: "*The Hawai'i island community is upset over inadequate management by the University of Hawai'i*" (Kaifu, 2015, 8). The conflict was apparently solved through the adoption of "*community-based management*" (Kaifu, 2015, 8). After that, all the legal steps seem to have been fulfilled with a large participation and consensus of the local community; unfortunately, however, "*several native Hawaiian cultural groups*" started to oppose the project (Kaifu, 2015, 1). The behaviors and speeches observed during the massive street demonstrations in Honolulu suggest that the issue was undoubtedly more complex and involving greater tension. A detailed analysis of the process shows it was indeed so. Today a set of between thirteen and twenty-two telescopes (Casumbal-Salazar, 2014, 287) rise at the top of Mauna Kea although it is true that the first one was installed in 1968, the first road to the top had already been built in 1964. The other instruments were set up by a number of consortiums. The agreements between the State of Hawai'i and the University of Hawai'i and the different consortiums were reached over a long period of time without consulting the local population. Disagreement with this situation led to the already mentioned "community-based management", including the University of Hawai'i's commitment to install more telescopes only with the approval of local organizations. When the Thirty Meter Telescope (TMT) consortium, with the support of the US, China, Japan, Canada and India, began to study locations, different places were proposed. In 2009 the "TMT International Observatory" elected Mauna Kea due to a combination of scientific, financial, and political factors. This was also the year of the approval of Honolulu as the venue for the IAU XXIX General Assembly. Locally, this decision was made in a scenario of increasing tension. First, the protests against genetically modified taro (a staple of the Hawaiian culture and tradition); second, a bill (Akaka) was proposed to give Hawai'i a special political status in the USA. It is therefore not surprising that the conflict had grown when the Hawaiian Board of Land and Natural Resources conditionally approved the construction in 2011 and made the authorization official in 2013, despite the protests. The timeline in the IAU letter explicitly mentions that the protests that interrupted the construction opening ceremony in 2014 were "non-violent." But it fails to say that the arrests taking place during the protests between March and June 2015 were much less peaceful.

But the events related to the origin of the telescope complex on Mauna Kea are only recent history in the controversy around the TMT, which cannot be fully understood unless situated in its proper longue durée. The IAU letter, however, does not do so. In fact, when it describes Hawai'i's general history, it briefly summarizes events in an initial section covering less than one page (Kaifu, 2015, 3) and unconnected with the TMT controversy. There is only one line dedicated to the situation prior to Cook's arrival, which is described as "*opening a door to the West*," without referring to the critical role of the Europeans' presence in affecting the local social and political system. In fact, one of the first impacts of the Europeans' appearance was the unification of the different Hawaiian chiefdoms by Hawai'i's first king, Kamehameha I. The letter only mentions two violent events in connection with the arrival of the Europeans – Cook's "murder" and the death of around 175,000 Native Hawaiian People (Kānaka Maoli) from western diseases because they were "*unusually vulnerable*

to introduced diseases" (Kaifu, 2015, 3). The letter does not relate the dramatic situation for the Kānaka Maoli when North American people settled in Hawai'i as large landowners. The arrival of migrants from China, Japan, the Philippines, Micronesia, and even Portugal, mostly to work on American plantations is only described by the metaphor of a "melting pot." They imported workers from China, Japan, and the Philippines. In this context, there is a blurry picture of the economic pressure in an increasingly market economy, and of the presence of large amounts of foreign population and epidemics that drastically reduced the population and rights of the Native Hawaiian People (from almost 400,000 in the 18th century to the current 40,000 in an overall population of 1,000,000). In this scenario, the process is presented simply as "controversial", whereby the pressure of the US landowners and the support of the US government provoked the abolition of the monarchy in 1893 and the annexation to the US in 1959. From then onward, the brief historical outline in the IAU letter omits to make any reference to the situations undergone by the Kānaka Maoli. It should be noted that due to the changes indicated, the Native Hawaiians went through a drastic dispossession of their territorial and cultural rights. During the 1960s, partly encouraged by the US civil rights movement, an awareness raising process began about the culture of the Kānaka Maoli (Miller, 2016, 230-232; Swanner, 2013, 209-211). The navigation of Hokule'a from Hawaii to Tahiti, in 1976, was a turning point in the affirmation of this identity movement (Finney, 2003). The Hawaiian language, which had been banned from schools, was recognized by the State as an official language as late as 1978.

In this context, it is clear that the protest against the installation of a new telescope is merely the tip of the iceberg and that it has deep roots. Beneath this opposition there is a much broader and older set of claims. The process of deciding the installation of the TMT is a kind of icon of the domination relationships experienced by the Kānaka Maoli. Our fieldwork demonstrated that many local people that are not Kānaka Maoli acknowledge that the rights of the latter are frequently left behind. In fact, they agree that the construction of the TMT is another way of ignoring their rights. But they also identify the Kānaka Maoli with a past that is already over as a result of progress. Therefore, many of these locals oppose the claim against the TMT because they view it as a fight against progress, which is seen as inevitable and/or necessary.

4.2. The Uses of the Differences

The IAU official discourse positions the institution as being "neutral" in this and other similar conflicts. In this sense, the professional association of astronomers replicates, at a collective level, the ideal of the "neutral" scientist, far from the debates and conflicts of the political arena. From the social sciences and cultural astronomy, it is very clear that this view hides the fact that there are no "neutral" positions and that knowledge systems play a central role in colonial processes (Harding, 2008; Krupp, 2015; López, 2015; Mignolo, 2000; Steele, 2015). One way of building such implicit political positioning has been through the phrase "respect for diversity," popularized by the rise of cultural studies and its use by government agencies (López, 2015). In this sense, the IAU president's words of "*respect for all cultures*" in his letter to the assistants are symptomatic. According to this view, culture is conceived as a "difference" without political connotations. It is a way of "taming the difference" by concealing what lies underneath - inequality and power relations.

One of the typical mechanisms used is the "folklorization" of culture, i.e. to reduce it to stereotyped, polite, exotic and non-political expressions, linked to the past, to what remains unchanged over time, to the world of entertainment and consumer goods. A good example is the contrast between the "typical dances" presented in the General Assembly inauguration and those performed in the streets by various neighborhood and cultural associations during the protests. The latter are expressions of empowerment, implying a demand for rights, resources, and participation.

As a consequence of the IAU "neutrality", the Assembly did not allow any presentation of the protesters' debates or demands. But, as might be expected, the TMT project had its own stand as a scientific enterprise.

4.3. «Pioneer» Discourse in Contemporary Academic Astronomy

As stated in the Introduction, very costly and sizable observation facilities have stolen the limelight in contemporary academic astronomy. These installations require cooperation among academic institutions of different countries and the support of a number of national governments, and are typically dominated by the logics of the present phase of the World System, the "dislocated capitalism" (Appadurai, 2001/1996). They resemble large-scale extractive industries such as mining, oil, intensive farming, and timber (Sawyer and Terence Gomez, 2012). Like many other similar undertakings, these big projects, managed by international consortiums with billion dollar budgets (the TMT budget amounts to USD 1,400,000,000), have schedules and deadlines defined at transnational levels.

The need for "dark skies" for many of these instruments implies finding regions far away from urban areas. In order to avoid atmospheric problems, high elevations, dry areas, and clear nights are necessary. Also, due to the considerable size of the facilities, these projects require large expanses of land. The high mountains and plateaus, which meet these requirements, are usually viewed by the project teams as "deserts", entailing multiple associations such as the assumption that there would be no human communities and no human "constructions." This notion of the space to be occupied, plus its political and economic engineering involve cutting-edge technology and knowledge on the frontiers of science, and lead to the adoption of specific imaginaries and discourses. The rhetoric normally used by the consortiums engaged in these ventures is a "pioneer rhetoric." It is commonly found in many contexts of colonial relationships and implies conceiving themselves as the forerunners of civilization and development, whose mission is to guide other human beings toward "modernity", "reason" and "maturity." Also, they see the local populations as "uncivilized savages." Their view of the social world is implicitly or explicitly that of 19th-century unilinear evolutionism, which regard local populations as past stages of human development. Hence, they are associated with other groups in "need of guardian-ship", such as children or women. The behaviors of all of these groups are rated as "irrational", "mystic", and emotional."

Another characteristic of the rhetoric of these ventures is that they are usually addressed to urban middle and high-class audiences of "developed" countries, which provide the funds they use. Therefore, it is not surprising that environmental impact concerns have been taken more into account than cultural impact ones. In this sense, they suit the sensitivity of their imagined audiences. Consistently with all this, the political practices of the consortiums usually follow a so-called "top-down" scheme. First, they negotiate with transnational organizations and national governments and jointly set agendas, costs, and priorities. Only then do they reach down to the local level, submitting a complete final plan that the locals are expected to endorse enthusiastically.

However, as is the case under study, local communities are usually not so eager to welcome what the project has to offer. They normally have their own ideas regarding the space in question, which to them is a space where they live, a territory. In other words, an inhabited space, a place full of memories, recollections, life, and meaning. In this case, for the Kānaka Maoli, Mauna Kea is part of their narratives about the origin of man and the world. It is the umbilical cord connecting sky and earth, a place of origin of the water needed for ritual life (Casumbal-Salazar 2014, 148-151; Karube, 2016, 62-64). A space of the powers shaping the world, but not of the humans. The top is not a site to search for a given number of altars or intangible places (Karube, 2016, 62-63). It is rather a sacred landscape, where each stone is a potential meeting place for the numinous, regardless of the countless altars and archaeological remains found in the summit (Karube, 2016, 62-64).

4.4. The Role of Cultural Astronomy

One of the most disturbing aspects revealed by this case study is the role played by contemporary cultural astronomy in the rhetoric legitimation devices used by these astronomical undertakings. From the very start, the initial discourse has managed to incorporate the local cultures encountered and has rethought them as prior stages of its own project. Thus, the nation-states have added the aboriginal populations of the Americas as icons from the past, as a kind of prehistory that linked them to the power of their roots and anchored them to the territory. They provided a basis on which to build a future. This is how to interpret what one of the authors investigating this case has described as the creation of a "Fictive Kinship" between the "ancient Hawaiian Natives" with their astronomical knowledge and the "contemporary astronomers" and their huge telescopes (Casumbal-Salazar 2014, 2017).

This author very accurately explains how the 'Imiloa Astronomy Center was founded in Hilo in 2006, within the framework of the new Mauna Kea management plan by the University of Hawai'i. The IAU letter refers to this in the timeline saying that "it was developed in the mid-1990s by a team of educators, scientists and community leaders who understood the need for a comprehensive educational facility that would showcase the connections between the rich traditions of Hawaiian culture and the groundbreaking astronomical research conducted at the summit of Mauna Kea" (Kaifu, 2015, 8). Some authors have seen it as a place for mediation using theoretical categories like "boundary object" (Miller, 2016) or "trading zone" (Swanner, 2013, 2015). But, in general, these forced constructions imply disabling any actual otherness. This means eliminating the political dimension in the relations between various epistemes and the social worlds they are related to. It therefore implies the invisibilization of the claims and conflicts that reveal the existing inequalities. Therefore, it is not surprising to see the reluctance to approach the conflicting aspects of the Mauna Kea management in the 'Imiloa Center, as several authors mention (Casumbal-Salazar 2014, 2017; Karube, 2016). We were able to verify this by

ourselves, and also see it in the efforts to avoid the TMT issue during the conference we attended in Hilo in 2015.

5. CONCLUSION

The type of analysis proposed attests to the potential of cultural astronomy if applied not only to the astronomies of "others" but also to the analysis of our own astronomical practices. If, as already stated on many occasions, cultural astronomy is a true anthropology of astronomy, it should then be applied reflexively to the tradition from which it has sprung. To do this forces us to use the appropriate technical and theoretical field-work tools. We particularly believe that it is essential to have a post-colonial theory of knowledge that should restore the political dimension that the colonial endeavor has sought to conceal in the case of western science. We have managed to see that ethnographic fieldwork applied to whole social events, along with a discourse analysis and a historical perspective, may yield great results consistent with those obtained by long-term research (Casumbal-Salazar 2014, 2017; Herhold, 2015; Karube 2016; Miller 2016).

The case of academic astronomy is especially important because when ranking contemporary forms of knowledge in global society it is assigned the role of a discipline particularly "pure", "objective", "transcendent", "universal", and free of "culture-laden values." This way of assigning astronomy a different status from any other human activity constitutes a mechanism of concealment that allows astronomy to legitimize the procedures through which it imposes itself over other lifestyles and knowledge. We have seen how, behind that appearance, the large astronomy consortiums act following the logic of huge extractive industries in the current phase of colonial capitalism. One way of concealing this power logic is the claimed "neutrality" of institutions like, for instance, the IAU. This "neutrality" practiced in different ways, as stated here, strengthens inequality and consistently favors those in power. In this context, the comparisons collected during our fieldwork from many astronomers (and corroborated by other authors) are very symptomatic as they related the Kānaka Maoli opposition to the TMT to the Inquisition's actions against Galileo. The fact that these comparisons completely leave aside the power relation inversion between both situations brings the problem to the limelight.

This case has helped us illustrate how cultural astronomy may become trapped at the service of the legitimation logic of colonial relations. We should therefore be especially aware of our ethical responsibility as researchers, which again compels us to consider the political and situated nature of knowledge. Aboriginal people are usually mis- or under-represented in national governments and agencies. In this context it is key to understand that the Right to Free, Prior and Informed Consent (FPIC) is an obligation not a gift. All public interventions with an impact on local and especially on aboriginal populations must obtain FPIC. In fact, we need to construct our projects with the local communities based on true dialog. If the possibility of saying "no" to our proposals is absent then it is not real dialog. This right is endorsed by the United Nations Declaration on the Rights of Indigenous Peoples (2006) and the International Labour Organization Convention 169 (1989) - ratified by 20 countries. The main characteristics of FPIC are that it must be prior to the decisions made and be conducted through institutions representative of indigenous communities. Also, indigenous people should control the process by which their representatives are selected, and they must be free of pressures and manipulation.

The colonial rationale is instilled in our bodies and practices. We should apply epistemological vigilance painstakingly to avoid the risk of replicating colonial plunder in the name of science and culture. Cultural astronomy must play a key role in the articulation of the academic astronomy community and local populations. We need to be involved with people if we work with people. Science, culture, and art should set the course for governmental logic and not vice versa.

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