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Nuclear Settlers in a European Land? The Making of Centre Commune de Recherche in Ispra

Matteo Gerlini*

Abstract: »Nukleare Siedler in einem europäischen Land? Die Entstehung des Centre Commune de Recherche in Ispra«. The post-war European integration process faced a new geographical challenge in connection with the establishment of Euratom’s Centre Commune de Recherche (Joint Research Centre; CCR/JRC) in the late 1950s and early 1960s. This article outlines the early history of this first effort of “European land-making” by discussing the political, institutional, and anthropic significance of such a particular settlement in relation to the discourse on European identity. After lengthy negotiations within Euratom, it was decided to establish the CCR’s headquarters and main research facilities in the Italian region of Lombardy, in the Ispra municipality. More precisely, an already existing Italian nuclear research centre that was still under construction at Ispra in the late 1950s was transferred to Euratom. The article elaborates on the tensions and controversies that resulted in the context of this siting decision, and on the problems and challenges that the Euratom scientists and engineers experienced as “nuclear settlers in a European land.” The article combines documents from the Historical Archives of the European Union and the recollections of former officers and scientists who were active at the research centre.

Keywords: Euratom, Centre Commune de Recherche, Joint Research Centre, Ispra, European nuclear research, local communities.

1. Introduction

At the beginning of the 1960s, the nuclear field was at the heart of European integration efforts. The research body of the Euratom Commission, known as the Centre Commune de Recherche (Joint Research Centre; CCR/JRC), pioneered the mobilization of science for creating a shared, transnational identity. Unlike other epistemic communities, Euratom’s nuclear researchers were brought together by more than beliefs. They shared a kind of

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“supranational” identity in which their nation was Europe: a peaceful, prosperous, and just nation-continent that, as they imagined, would be built on the basis of their research. The origins of the Centre can be traced back to the mid-1950s. The Suez War of 1956 temporarily interrupted oil supplies to Europe because of the blockade of the canal. In this context, Europe focused attention on the promising applications of nuclear energy for power generation. The Centre Commune de Recherche was envisioned as a key component in the attempts to provide European economies and societies with this new, independent source of energy.

Through an analysis of official documents and personal papers found in the Historical Archives of the European Union, this article reconstructs the debate, within the Euratom Commission, on the selection of a suitable geographical site for the envisaged research centre. These archival sources provide the backbone of the historical narrative presented here. In addition, the article draws on the recollections of former officers and researchers, collected mainly by Friederich Geiss in his self-published history of the Joint Research Centre. These provide a subjective but interesting account of how the people who moved with their families to the Euratom Commission’s research site experienced this historical and geographical process. As we will see, the anthropic geography of the site on the shores of Lake Maggiore changed rapidly and in an unusual way, quite unlike the sites of other international organizations.

2. The Complexity of the Site Selection Process

2.1 The CCR Vision

The Treaties of Rome, which were signed in March 1957, created the European Atomic Energy Community (Euratom). It was the twin of the European Economic Community, and upon it rested significant expectations of the governments of the six member states. Nuclear energy promised power “too cheap to meter,” but at the time no Euratom member state had a solid nuclear industry (Skogmar 2004). Euratom had the mission of supporting the inception and growth of such an industry in its member states. To do so, among other provisions, the Euratom Treaty prescribed the creation of a Centre Commune de Recherche (CCR) – in English: Joint (Nuclear) Research Centre (JRC) – to foster nuclear research and development in the European Community (Intergovernmental Conference on the Common Market and EURATOM 1957). The CCR was conceived to be the research branch of the Euratom Commission, the supranational government body of the atomic community. It is worth recalling the double naming because English was a tertiary language in the community in the late 1950s, as the United Kingdom was not yet a

Euratom member. After the United Kingdom's accession in 1973, the share of English-spoken personnel increased, the name JRC became predominant, and the designation CCR was discarded. So, for philological correctness, it is proper to refer to the CCR up to the point when the United Kingdom joined. This choice does justice to the significant role of French institutions and representatives in the CCR's early history (Dumoulin, Guillen, and Vaïsse 1994).

The selection of a suitable site for CCR's headquarters and main facilities (including the envisaged research reactors) generated considerable debate. The site selection process was informed by the different perceptions of the various nationalities gathered in the community. It was further affected by the diverging attitudes within the member states. The polarization between supporters of the supranational principle and those who wanted to keep the European construct mainly under intergovernmental rule was evident in France and, to a less extent, in the other member states (Gillingham 2003).

The experience of the European Community of Defence (ECD), proposed by the French head of government René Pleven in 1950 and eventually rejected four years later, epitomized this thorny debate (Ballini and Istituto "Luigi Sturzo" 2009). After the success of the former European Coal and Steel Community (ECSC), the ECD failure was a severe setback to supporters of European unification (Spierenburg and Poidevin 1994). The treaties of Rome resumed the process, and the making of Euratom and its envisaged role in boosting nuclear energy developments in Europe catalysed the conflicting attitudes towards European integration. These conflicting attitudes were also felt in those national nuclear complexes that had already started to take shape in some member states. The French debate was pivotal again, because France had advanced further in the nuclear field than the other members (Scheinman 2016). The presidents of the Euratom Commission were French, as was Euratom's first Director General for Research and Training, the physical chemist Jules Guéron, who took office in January 1958. He emphasized that the prompt establishment of the CCR must be a top priority for Euratom. The internal debate within the Euratom Commission focused on two options: the construction of the CCR from nothing, at a site to be identified in the member states' territories, or the transfer of an existing structure from a national authority to Euratom. The debate became intense. Guéron eventually promoted the latter option, but not everyone shared his opinion.

2.2 The Debate inside the Euratom Commission

On 16 April 1958, Guéron presented a note on the site selection issue to frame the discussion within the Commission. In thinking about the creation of the CCR, the first concern was to combine increased scientific efforts by all six countries with economic considerations: economy of time and economy of scarce technical personnel.

Guéron addressed the option of transferring an already existing national nuclear centre to Euratom by outlining the pros, cons, and conditions. The country transferring an existing centre to Euratom would obtain three essential advantages: 1) seeing a prestigious community institution on its soil; 2) the praise implicit in Euratom's acceptance of the transfer; and 3) thanks to Euratom's means, assurance of developing a large-scale centre beyond what was possible through national resources alone. Euratom, for its part, would be spared the gestation period that a new creation necessarily entailed. But which nuclear centre could be transferred to Euratom? Guéron listed the existing centres, showing that some would clearly not lend themselves to a transfer, "even disregarding the national objections (objective or sentimental) that possible Commission proposals might encounter" (Communauté économique européenne et Communauté européenne de l'énergie atomique 1958). For example, the French nuclear research centre at Saclay, located just outside Paris, was too large for the Euratom budget and, above all, was deeply identified with an "important national programme" – the French nuclear weapons programme (Mongin 1997). On the other hand, Guéron saw no technical objections to the idea of Euratom taking over centres such as those that already existed at Mol in Belgium, Grenoble in France, and Karlsruhe in West Germany. The only concern was that a transfer of one of these centres to Euratom should not be accompanied or followed by the creation, without Euratom's approval, of a new national centre within a period of at least five years. Another aspect was the need to maintain a geographical-political balance of the Community, which meant that the nation receiving the CCR should not also host the Community's headquarters. In the Commission plan, the CCR involved more than 3,000 people, with an annual operating budget of millions, not to mention investments.

The other basic option, the creation of a new CCR from scratch, excluded the simultaneous creation of a national centre, because the creation of two centres – one national and one European – in one and the same country would, as Guéron put it, disperse efforts and funding. Italy was the only Euratom country that did not yet have a large nuclear research centre in operation. The creation of the Euratom centre in Italy was thus regarded as an appealing, but somewhat uncertain possibility, since the country's Comitato nazionale per le ricerche nucleari (National Committee for Nuclear Research; CNRN) was in the process of constructing a nuclear research centre at Ispra.

There was a third basic siting option: in June 1958, the Commission evaluated the possibility of constructing not a single CCR but a network of centres with different tasks in the same master plan. On 7 July 1958, the Commission opted, in principle, to evaluate the transfer of an existing centre first rather than building a brand-new centre, but the network idea continued to influence the discussions. Over the summer, the six member states expressed their interest in providing a centre for Euratom, with some conditions or

ambitions attached: Grenoble would be devoted to thermonuclear research, Mol would be a minor centre – as the Belgian government’s primary goal was to host the Communities’ headquarters – and the Dutch centre would host a high flux reactor. The German government advanced the project of a centre devoted to the transuranic elements and the prospects of plutonium (Communauté économique européenne et Communauté européenne de l’énergie atomique 1958).

2.3 Siting Criteria

In September 1958, the Euratom Commission had an exchange of views over the siting issue, agreeing to assign to the physician Enrico Medi and the engineer Paul de Groot, the Italian and Belgian members of the Commission (Medi was also vice president), the task of preparing the background documents to be presented by the Commission in the negotiations with member states. Shortly afterwards, de Groot proposed to the Commissioners the criteria the CCR would have to satisfy. These were used as a basis for the choice among the various sites offered to the Commission by the member states.

The primary consideration was that because the scientific establishment might develop in unforeseeable ways, it must be established at a site where the lack of real estate did not hinder its expansion. The CCR was to be located near a state nuclear research centre because this would facilitate its initial development, placing some existing general services (laboratories, medical service, site control, restaurants, etc.) at its disposal. The CCR would be fitted out with massive equipment, requiring solid and stable foundations for the building, and located in an area that was not prone to earthquakes. The site’s drinking water supply had to be easily accessible. It was also essential to have large quantities of water available for cooling of the experimental reactors (Communauté économique européenne et Communauté européenne de l’énergie atomique 1958; cf. Gutting and Högselius 2024, in this special issue).

Reactor cooling also required large amounts of electricity to power the water pumps. The availability of this electricity would have to be ensured as far as possible for the safe operation of the reactors. The site would therefore need to be connected to a high-voltage transmission system. The site should be easily accessible to people from other nuclear centres and industry representatives from within and outside the Community. It should be close to a major airport, a major railway junction, and major industrial centres to facilitate the supply of heavy equipment that could not be manufactured in its workshops. Again, the CCR should be located close to university centres and in a region providing the necessary non-academic workforce. At the same time, the site should not be close to dense population centres for safety reasons. Care would be taken to ensure that prevailing winds did not blow radioactive materials from the site toward such centres. The site should allow for

easy evacuation in the event of a nuclear accident and should not be vulnerable to flooding or tornadoes. The location should offer possibilities for the easy disposal of low-level radioactive wastewater. For the same reasons, it should be far from reservoirs supplying drinking water to large population centres. The list also included the “human criteria,” which meant that the CCR should be “populated by happy people, living comfortably.” For this task, the site should not be too far from a large city, so that the staff would be able to keep in touch with artistic and cultural life (exhibitions, concerts, theatres, etc.).

Also to keep the staff happy, the centre should preferably be located in a “pleasant natural setting: forests, lakes, mountains, etc., allowing for a wide variety of sporting activities.” Ideally, the area surrounding the CCR would allow for easy incorporation of the new population into the existing population to avoid creating a residential centre composed solely of CCR staff members and their families.

Based on these criteria, Medi proposed that the CCR be established at Ispra in Italy. The centre, following this proposal, would host the general laboratories of chemistry, physics, electronics, and metallurgy laboratories; the special laboratories for nuclear fusion and isotope separation (except the facilities related to Uranium-235 and transuranic elements, which would belong to Karlsruhe), prospecting, and mineralogy; the central office for nuclear measurements; and documentation and information services.

The centre-piece of the CCR would be its prototype reactors. Medi first proposed building an organic moderated reactor, which was at the forefront of studies conducted by the CNRN and the Montecatini Company. Secondly, he proposed a liquid metal reactor, for which the preliminary survey was still being carried out by Italian researchers of the joint CNRN-FIAT working group. Thirdly, the experiments for constructing the prototype high-temperature gas-cooled reactor would be run in partnership with the United Kingdom in the framework of an OECD initiative headed by the UK’s Atomic Energy Authority. The construction of the high flux reactor, proposed by the Dutch, was not included in Medi’s plan. Other reactors – for example, the Mol reactor – were not ruled out but were conceived as subsidiary in this research plan (Communauté économique européenne et Communauté européenne de l’énergie atomique 1958).

De Groote subsequently asked Medi to amend the tentative proposal by assigning the measurement laboratory to the Mol centre. At the same time, the information and documentation services would be located at the Euratom headquarters in Brussels.

The Dutch Euratom commissar, the former minister and senator Emanuel M. J. A. Sassen, asked for time to evaluate the proposal and the criteria identified as requirements for the assignation of the CCR (Communauté économique européenne et Communauté européenne de l’énergie atomique

1958). The other members agreed. Guéron used the reflection time to re-emphasize, in his communication with the member states and the national nuclear actors, the importance of establishing the CCR and turning it into a success. After all, it would be from the CCR that Euratom would receive its character and stamp. He was worried that the negotiations in the Commission would end up with a much too diffuse CCR. Euratom, he argued, needed a research centre with a strong physical presence. He also worried about the potential competition between the CCR and the national centres. For this reason, the CCR should not be located next to such a national institution – unless regulations stipulated complete symbiosis. Guéron proposed that the Commission affirm the “European naturalization” of an existing centre (with a transitional period during which the first owner would be a privileged tenant). After such a firm decision, Guéron would submit a more elaborate technical classification of “naturalizable” centres eligible to function as the CCR headquarters. If the Commission decided otherwise, however, or if it did not succeed in getting one of the member countries to accept the Europeanization of an existing centre, it would be necessary to create a new centre, despite the waste of land, workforce, and time involved (Communauté économique européenne et Communauté européenne de l'énergie atomique 1958).

This argument of waste would be essential in any negotiations with the member countries, in Guéron's view. If one were forced to fall back on the solution of creating a new CCR from scratch, the main thing would be to move quickly. In Guéron's thinking, it would be necessary to recreate the spirit of adventure that reigned in the atomic yards from 1942 to 1947. A certain degree of discomfort, visible without being excessive, would help to give substance to this spirit. In any case, the agreement and active support of national and local authorities would be necessary. To naturalize an existing centre, the constant help of numerous individuals and bodies would be needed. Therefore, it would be essential that the Commission, having taken a firm decision, seek unequivocal support before approaching national authorities, and then deal with them firmly to obtain the conditions and guarantees without which failure would be likely. Here again, it was clear that “naturalization” would offer Euratom more security than any other formula: the transfer of an existing establishment entailed a much deeper commitment than promises of assistance in transforming a vacant lot into a new research establishment (Communauté économique européenne et Communauté européenne de l'énergie atomique 1958).

Importantly, Guéron had his own idea of which existing centre was most suitable for “Europeanization.” More precisely, in parallel with the debate inside the Commission, he promoted separate negotiations with France, with the goal of assigning the CCR to the research centre of Grenoble. For some it appeared that the idea would have good chances of materializing. But in June

1958, the situation changed with the return to power of General Charles de Gaulle, who disliked the supranational approach to European unification prospects and preferred the intergovernmental path for European cooperation (Pirrotte, Girerd, and Lacoste 1988). The president of the Euratom Commission, the French engineer Louis Armand, appears to have been supportive of the Grenoble option (Teissier Du Cros 1987). In early 1959, however, Armand was replaced as the Commission's president by another French engineer, Etienne Hirsch. Hirsch discussed the issue with Francis Perrin, the French High Commissioner for the Commissariat de l'énergie atomique (CEA), who broke off the negotiations about Grenoble (Geiss 2011). As Guéron had also belonged to CEA before moving full-time to Euratom, this opposition is consistent with the antagonism internal to the French nuclear complex regarding the degree of French participation in Euratom (Teissier Du Cros 1987).

After the failed effort to "Europeanize" Grenoble, Hirsch and Guéron turned to the German centre of Karlsruhe, but the German authorities declined because they were having trouble enough "Germanizing" it. So, the German government agreed to Medi's proposal mentioned above to host only the CCR transuranic laboratory and not the CCR headquarters. With Grenoble and Karlsruhe out of the game, Medi's proposal to pick Italy's Ispra site for the CCR eventually won out. On 28 April 1959, Euratom's Scientific and Technical Committee formally agreed to transfer the Ispra nuclear research centre to Euratom and to locate the CCR headquarters there. Francis Perrin, France's representative, strongly supported the proposal. On 25-26 May, an Italian delegation came to Brussels to draw up the Ispra agreement, which specified that Euratom's investment in the CCR would amount to around 2/3 of the Italian contribution. (Geiss 2011).

3. Disentangling the Local Context

3.1 European Pioneers or Nuclear Settlers?

An important task for the Euratom Commission, in the context of the planned CCR, was to recruit researchers and staff. The Commission began to do so long before the site was identified. According to Geiss, the recruitment process followed no formal advertisements, competitions, or established procedures. Many staff, especially the French, were employed directly by their national research centres. Some of them were followed by a large entourage of collaborators. In substance, personal networking was the only recruiting channel (Geiss 2011).

The eventful history written by Geiss brings to the fore interesting aspects that are not highlighted in the documents held in the Commission archives.

It depicts the first Euratom/CCR employees as pioneers of a European identity, waiting to be truly European settlers. It reported in detail on the economic value of the European Commission stipends, which was very high for Dutch and Germans, yet only at the minimum threshold to make Brussels attractive for French nuclear scientists and engineers, the only ones available in sizeable numbers. New employees had no formal contracts, only a piece of paper setting their monthly salaries without specifying their degrees and ranks. A “lettre d’engagement” followed later. There was no social security, and employees could be fired from one moment to the next or with one month’s notice. Nevertheless, the social climate between the nationalities was excellent and cooperative from the beginning. The rule that French was to be used as the main language was not a significant obstacle. The average age of the employees was 25 years. Guéron recalled how new employees who were inexperienced in teamwork arrived every day at Euratom headquarters in rue Belliard, Brussels, where they were temporarily stationed awaiting the beginning of the joint research activities at Ispra. There were few structures and no project directors. The Euratom Commission consisted of men without nuclear competence who had not worked in the nuclear programs in the United Kingdom or the United States during the war. Nevertheless, Guéron remembers an atmosphere featuring a blend of enthusiasm and curiosity, animated by frequent cocktail parties in the evening, ideal occasions for sizing each other up. Guéron depicted an epoch of upheaval, of a new departure. And, overall, he displayed a sense of uncertainty: most people were bound for work at the CCR, but which work, where, and when? Geiss added that this uncertainty was to accompany the CCR staff for many years (Geiss 2011).

3.2 From an Italian to a European Nuclear Research Centre

The town of Ispra is located on the southeastern banks of Lake Maggiore. The nuclear centre, which was turned into the CCR in 1959, had been established just two years before, in 1957. It was created in a competition/cooperation between state and private players in the Italian nuclear sector. The first actor was the Centro informazioni studi esperienze (Center for Information Study and Experimentation; CISE), established in Milan in 1949 upon the initiative of Italian industrial groups. Then the Comitato Nazionale per le Ricerche Nucleari (National Committee for Nuclear Research; CNRN) was established in Rome in 1952. This state agency gradually took the lead in the Italian nuclear programs (Simili and Paoloni 2001).

In the Spring of 1954, a delegation headed by Francesco Giordano, President of the CNRN, his collaborator Felice Ippolito, and Carlo Salvetti from CISE went to the United States, where they agreed on the purchase of a 1 MW reactor of the Argonne type CP5, fuelled by uranium-235, enriched at 20% and moderated by heavy water. This turnkey choice was opposed by part of CISE,

which would have preferred to develop such a reactor domestically (Silvestri 1968). In October 1956, CNRN and the American Car and Foundry Company signed the contract for the delivery of the CP5 to be installed at the Ispra site, and the reactor was named Ispra-I. CISE participated in preparing the site and managing the reactor. Carlo Salvetti became the head of the Centre (Kirchhof 2020).

Ispra is 15 km from Varese and 70 km from Milan. The town is located in Lombardy's lake area, featuring an Alpine landscape. It seemed to fulfil the natural environment requirements planned by the Euratom Commission. But not the other human needs: a leading CISE scientist commented on the choice of Ispra as the site for Italy's first nuclear centre that "the worst aspect [of it] is the moral damage inflicted on the scientists by uprooting them from the cultural activities of the Lombard capital. I would prefer leaving the profession to being exiled to Ispra" (Geiss 2011).

As the reactor Ispra-I was expected to become operational in the second half of 1958, CISE purchased 155 hectares of land from the original owners. Most of the owners of the small plots were eager to sell the land, which was called Prati Magri (meagre meadows) because of its modest agricultural value. As the site for the Ispra-I reactor was somewhat marshy, a large drainage ditch and piling of the soft ground at 3.5 meters depth became necessary. This took the summer of 1957, so that when parts of the CP5 reactor arrived at the port of Genoa, they had to be stored in hangars. Between July and September 1957, CNRN recruited a team of CISE personnel to lead the Ispra-I site by offering them higher salaries. Ispra soon attracted physicists, chemists, metallurgists, and engineers, luring them away from universities and CISE. At Ispra, there was the unique feeling of being part of the one and only Italian nuclear research centre (Geiss 2011).

Ispra drained 40% of the Italian nuclear budget as well as the general research budget. Construction at the site was still ongoing when the proposal of transferring it to the Euratom Commission was debated and eventually agreed upon by the Commission members. But in Guéron's view, the option epitomized the Commission's problems: "Ispra, faute de mieux, for want of anything better" (Geiss 2011).

The Italian head of State, Giovanni Gronchi, had just inaugurated the centre when Euratom agreed to transfer Ispra to become CCR headquarters. Starting on 30 May 1959, the Italian public read in the newspapers about the upcoming transfer of the Centre. This launched a national debate on the decision. In the following weeks, most of the press articles were against the handover. The critics argued that "the loss of a nuclear centre, the only one in Italy, has cost us many billions of lire." Very few were in favour; the proponents argued that the centre would be considerably enlarged at the expense of the Community (Silvestri 1968). But the decision was not reversed. On 22 July 1959 in Rome, Hirsch signed the agreement with the Italian government on the handover of

Ispra to become Euratom's CCR. Then the agreement was submitted to the Italian Parliament for ratification (Curli and Ippolito 2000).

3.3 The Centre in Its Environment

In the end the transfer of the Centre was delayed by almost two years, formally occurring only on 1 March 1961. Already on 22 July 1960, however, the first group of incoming CCR staff arrived at Ispra to familiarize themselves with their future working place. The German Gerhard Ritter, appointed by the Commission as CCR Director, was commissioned by the Italian government as director for the Italian staff in the Centre until the official transfer to Euratom. During the summer of 1960, the CCR staff dealt with the problem of their legal status in Italy: they were not foreign workers as they were not in Italy to work for an Italian employer, yet neither were they tourists, of course. Their status was recognized well before the official transfer. Meanwhile, they began to populate a centre with “no furniture, and no chairs. [...] The former Ispra-I Italian staff that had left Ispra for the other Italian research [centres] took furniture and other essentials with them.” In Geiss's view, “in the sixties and the early seventies, the infrastructure of the greater Ispra area was, under quite some aspects, that of a third-world country. International dialling was not possible before 1974. Real research couldn't start until mid-1961” (Geiss 2011). This assertion epitomizes the feeling of a European exclave in a foreign, not European, land. It was a mindset that implied both a taste of adventure in dealing with objective difficulties and a sense of superiority concerning the human environment of the Ispra area and the Italian institutions.

The major failure of the Italian authorities was related to the housing commitment, as the agreement for the Ispra transfer stipulated that 400 flats would be supplied by May 1961, and 1,500 by the end of 1961. Before the end of 1960, all the incoming personnel were searching for living quarters. Apartments were rare and, consequently, expensive. The management of the Ispra centre booked some 100 rooms in the Palace Hotel in Varese and another 50 at the Frati Hotel in Gavirate and other hotels located halfway to Ispra, where the staff could take up provisional residence. The purchase of a supplementary 50 maisonettes and the availability of 60 apartments belonging to the former Ispra centre did little to relieve the precariousness of CCR housing. According to Geiss, the situation normalized only when staff started building private homes in the mid-seventies (Geiss 2011).

A European School for the staff children opened on time in September 1960; however, parents complained about the long way on school buses because it was located in Varese, the closest city to Ispra. Most Italian staff settled in downtown Varese; other nationalities, unless for schooling reasons, usually preferred the country or lakeside (Geiss 2011).

At the same time, the Centre area was adapted to the requirements of the CCR. In 1961, the area was enclosed by a fence. In 1962, the Centre was connected with a second independent high-voltage power line from Laveno, in addition to an already existing one from Varese. The fence and the lines fulfilled minimum security requirements. Moreover, after several forest fires threatened the Centre, a green belt was created, reinforced by a non-edification area in the northeast (Winter 2009).

As to the human aspect, the sources collected by Geiss suggest that the reception of the other countries' staff by the Italian CCR staff was very friendly, warm, and cordial. In the first year, the colloquial and working language was primarily French. It remained so for all administrative issues, such as everything connected to money, budgets, credits, and the health insurance scheme. Subsequently, however, the CCR staff progressively shifted into Italian. English was not introduced until some years later, when the enlargement of the European Community also affected CCR recruitment (Geiss 2011).

Quantitatively, the recruited staff in 1961 exceeded the number planned in the original Ispra agreement. At the end of 1961, the staff amounted to 960 employees, well over the planned 800. But after this initial explosion, the number of employees remained under the plan for the following years. By the end of 1964, there was still 60 Italian staff on site, which belonged to Comitato Nazionale Energia Nucleare (CNEN), the Italian agency which replaced CNRN in 1960. Over the years, a further 700 workers were present on the Ispra ground, coming from foreign construction companies. As to the national distribution, in 1964, the CCR staff followed the demographical distribution among the Member States, with a slight overrepresentation of Belgians (Communauté économique européenne et Communauté européenne de l'énergie atomique 1958).

The coexistence of Euratom research and independent Italian groups at the Ispra site between 1960 and 1961 does not appear to have caused any problems. The absorption of the remaining Italian Ispra research groups into the structures of the Euratom Centre did not take place until January 1962. In the next few months, many international research crews formed, with no more internal conflicts than expected between homogeneous national groups. The laboratories studied metallurgy and ceramics, physical chemistry, neutron physics, mineralogy and geochemistry, analytical and organic chemistry, nuclear magnetic resonance, decontamination, nuclear chemistry, reprocessing, high-temperature chemistry, and solid-state physics (Curli 2022). Many of them were involved in the Orgel Project, the Euratom flagship reactor project that, as the scientists hoped, would lay the foundation for the European power reactor. Later, these groups became concentrated in materials research and reactor physics departments (Kirchhof 2020).

One of the most interesting issues was the relationship of the CCR staff with Ispra's human and social environment. In the Ispra area, Geiss reported, staff

from abroad usually passed three phases after their arrival: two to three years of cultural, artistic, and scenic admiration of the country, followed by three to four years of allergic reactions, and finally, gradual acculturation and assimilation. Interesting jobs on the free market were scarce and required a perfect command of Italian; Switzerland remained the destination for services. The sense of isolation stemming from the location in a country area in one of the most industrialized regions of Europe was also hard to deal with for the Italian staff. The Ispra region had and still has transportation problems. The relationship between the population of the surrounding Italian villages and the Centre remained slightly tense for many decades, aside from local commerce (Geiss 2011).

What was ostensibly more difficult to understand for the staff, as it was composed of people with advanced degrees in sciences and technologies but little familiarity with the humanities and social sciences, was the existence of a backward countryside area in the middle of Italy's industrial core. The area followed the dynamic of many European regions, which experienced depopulation toward the closest big industrial cities. Cultural activities imported by the staff did not survive long. Only joint sporting clubs and activities were successful. The collaborative management of kindergartens with the locals failed. The Centre was not integrated into a regional development plan, nor did it have a significant impact on the regional industry, which was at the forefront of the Italian economy. There were complaints by Ispra natives about the exclusivity of the European School, the family tax not being paid by CCR staff, being priced out of the area's real estate market due to CCR staff presence, the overestimation of the Centre's economic impact on the province, and the overpaid local staff. Even the staff's children, although they were the families' second generation in Italy, were not integrated because they kept their European school (Geiss 2011). Nor did they want to be fully integrated into an environment they perceived as foreign to their own internationalized, European environment.

4. Conclusions

The making of Euratom's Ispra site and the emergence of the CCR there had some unique features. First, Ispra's "European" feature was something unprecedented in the history of nuclear sites and their relations with local communities. Secondly, the staff of the Centre, the "European pioneers," was not the staff of an international organization, but saw itself as performing the final ultimate tasks of the Euratom community. In this way, they placed themselves as a third subject with respect to Euratom's technopolitical leadership and the local community or authorities. Moreover, the same anthropic environment of the Ispra community was part of the overall European integration

process. This allows us to explain the nature of the sense of diversity felt by the CCR researchers and their families in relation to the Ispra community. They saw the local environment as part of the backwardness of some areas of their European community, into which they were never integrated, but nevertheless they felt responsible for the development of the area.

The story is also relevant to understanding the political process of European integration in its early stages. The negotiations within Euratom functioned as a practice exercise in the creation of the European Communities, allowing the integration process to continue until today. The Euratom Commission chose the Ispra site in a less complex institutional setting than today's EU, but also in a less regulated framework in which each member could exercise a veto. This was a decision for a unique supranational community, which was very different from other international organizations. It was not well received by the CCR researchers from the outset: the precarious sense of enthusiasm among the well-paid future settlers of the first "European country" contained a biased criticism of Euratom's political leadership. It was perceived as based on political elements, not only on technical and scientific assumptions. From the point of view of the Euratom Commission, however, its members were doing their utmost to make the start of autonomous Community research possible.

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Geographies of Nuclear Energy. An Introduction.

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Contributions

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