



# Geographical Association

---

Militarisation, Demilitarisation and Re-use of Military Areas: The Case of Estonia

Author(s): JUSSI JAUHAINEN

Source: *Geography*, April 1997, Vol. 82, No. 2 (April 1997), pp. 118-126

Published by: Geographical Association

Stable URL: <https://www.jstor.org/stable/40572826>

## REFERENCES

Linked references are available on JSTOR for this article:

[https://www.jstor.org/stable/40572826?seq=1&cid=pdf-reference#references\\_tab\\_contents](https://www.jstor.org/stable/40572826?seq=1&cid=pdf-reference#references_tab_contents)

You may need to log in to JSTOR to access the linked references.

---

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at <https://about.jstor.org/terms>



*Geographical Association* is collaborating with JSTOR to digitize, preserve and extend access to *Geography*

JSTOR

# *Militarisation, Demilitarisation and Re-use of Military Areas*

Geography © 1997

---

## *The Case of Estonia*

---

**JUSSI JAUHAINEN**

*ABSTRACT: Estonia experienced strong militarisation between the 1940s and 1980s under Soviet occupation and almost 2 per cent (85 000ha) of Estonia's territory was turned to military areas. In 1994 the last Soviet troops withdrew from the country and the re-use of former military areas became an important economic, political, social and environmental question. The possibilities – remilitarisation, conversion or abandonment – do not depend only on economic opportunities, they also depend on the geopolitical position of Estonia between NATO countries and Russia.*

*This article discusses the geopolitical developments and disarmament in the Baltic Region with particular emphasis given to militarisation and demilitarisation in Estonia. It includes a case study of the former military airbase of Raadi, located in Tartu, a town of 104 000 inhabitants in south-eastern Estonia. Raadi airfield was one of the largest Soviet strategic military airfields in Eastern Europe. After 1993 the area became the property of local authorities who started a project for its re-use, but development has been slow. The case of Raadi demonstrates how difficult it is to re-use former military areas.*

---

## *Introduction*

---

LARGE POLITICAL, ECONOMIC, social and cultural changes have characterised Europe during the 1990s, specially around the Baltic Sea in the northern part of the continent. These changes have occurred as the European Union strengthens in the western and northern part of the region and the Soviet Union disintegrates in

the southern and eastern part. One aspect of the changes has been the attempt by the former Eastern European countries to forge closer links with western economic and strategic alliances, such as NATO and the EU.

During this period of change, the Baltic Region, which consists of an area of 11 countries around the Baltic Sea, has experienced demilitarisation and disarmament according to the agreements between the previous Cold War opponents. The most important example is the Treaty of Conventional Armed Forces in Europe (CFE) that was signed by NATO and Warsaw Pact authorities in 1990. After this over 560 000 ex-Soviet Union military personnel left Eastern Europe and NATO troops have been reduced accordingly in the Western part of the continent (Wallenstein *et al.*, 1994). Although military forces and movable equipment have been removed, areas used for military activities have remained. Certain areas on the military map of northern Europe have become like 'temporary empty containers', ie. without any particular use. In Germany alone, over 4000 military sites have been closed or significantly reduced, likewise 330 sites in the UK and 230 sites in France. The reduction has also affected other countries in Western Europe, but specifically the countries previously belonging to the Eastern bloc. Earlier studies indicate that re-use can be positive for the local economy, but, depending on the context, may also be a significant hindrance or without major influence. It is important to note that employment in the defence industry was reduced between 1987-95 by 17 per cent in Scandinavia, 40 per cent in Western Europe, 54 per cent in Eastern Europe and 42 per cent in Southern Europe (BICC, 1996). The question of the re-use of former military areas and infrastructure is one that is now being addressed in every part of Europe and will continue to be an issue for decades to come: the question is whether to remilitarise the areas, convert them for civilian use or just to abandon them.

---

## *Demilitarisation as a research topic in geography*

---

Research on demilitarisation has progressed in the 1990s due largely to the increasing importance of the process within Europe. Disarmament and demilitarisation have been

approached, traditionally, as matters relating to peace and geopolitics (Faringdon, 1989; Taylor, 1993) then later as part of a new political geography – the geography of security, frontiers, borders and boundaries – from both traditional and new viewpoints (*Geoforum*, 1994; Taylor, 1994). The outcomes of demilitarisation in an economy, its relation to regional and local planning (Cumberland, 1973; Anderton and Isard, 1985; Achilles, 1990; Thorne, 1994) and social and environmental questions (Kölvik and Lotman, 1991; Demilitarised, 1994; Vares and Lassinantti, 1995) are all important topics for research.

The research of the re-use of military spaces (eg. military bases, housing areas and industries) is a relatively new and important field for geographers. Recently, the amount of applied research has been increasingly linked to the research projects of the EU. For example, the network 'Demilitarised' (funded under a RECITE Programme, 1991-95) studied declining defence-dependent areas regarding unemployment, planning, housing, environment, social change and re-use of military establishments (Demilitarised, 1994, p. 4). Another all-European

five-year project, 'Defence restructuring and conversion', has been planned under the COST programme (European Commission, 1995). Some local and regional authorities have established research institutes, eg. Bonn International Center for Conversion, in order to tackle the problems their areas face as a result of national and international disarmament.

Though European disarmament and demilitarisation are phenomena of the 1990s, the process has many similarities to earlier industrial restructuring. Studies of the re-use of industrial areas provide interesting possibilities for comparison from economic, social, cultural, political and environmental viewpoints. They can also help in the process of formulating theoretical approaches to the study of converting military sites, as well as dealing with the outcome. There is a substantial amount of literature and research relating to industrial restructuring and the diversification of the research follows the development of urban and social geography from positivist to neo-Marxist, structuralist, humanist and post-colonial approaches.

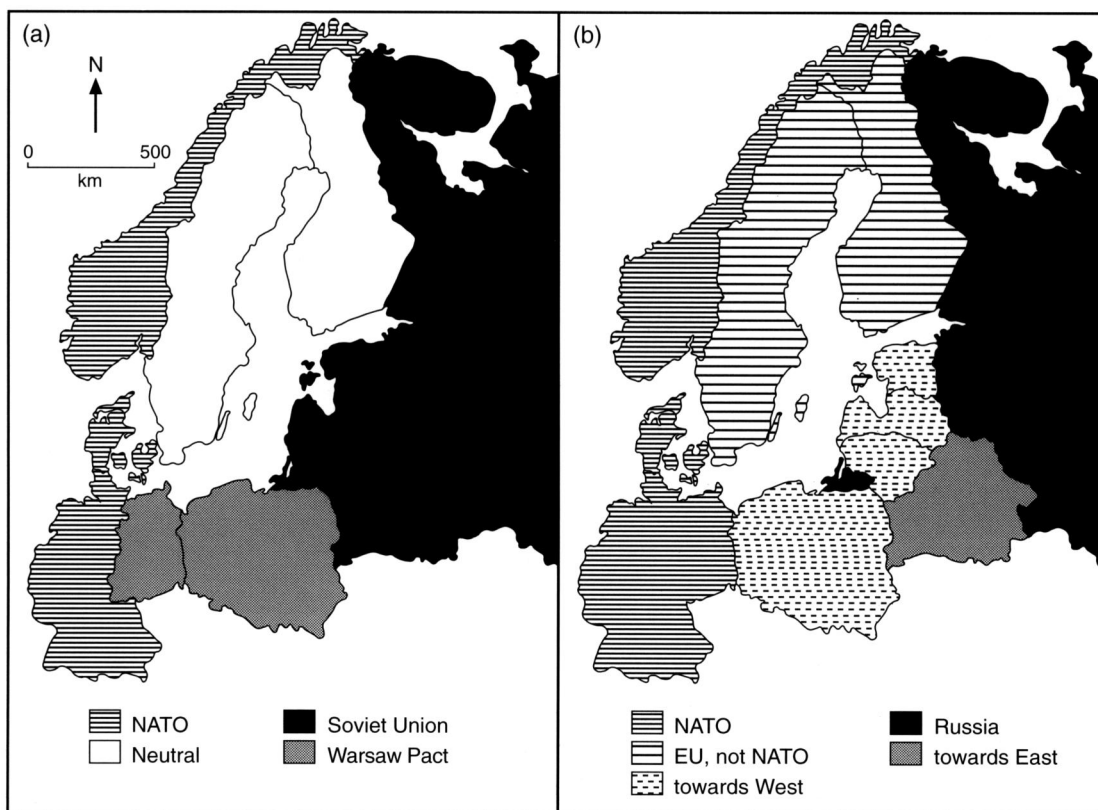


Fig. 1. The geopolitical context of the Baltic Region (a) 1989-91, (b) post-1995.

## *The geopolitical context of Estonia and the Baltic Region*

Historically, Estonia has always been considered to be part of a strategic area, or sphere of influence, of powerful states in northern Europe. Denmark and Sweden had a specific interest in Estonia in the past and the interest of Germany and Russia has lasted from the fourteenth century until today (Raun, 1989). One could argue that the weakening of Germany and Russia in 1918 opened the possibility for Estonia's independence and to the establishment of the First Republic of Estonia, and that their strengthening closed it during the Second World War. All the Baltic States were incorporated into the Soviet Union in 1940 and remained within it until their independence in autumn 1991.

The Baltic Region was relatively stable geopolitically during the Cold War: Sweden and Finland took a neutral position regarding military alliances and West Germany, Norway and Denmark became members of NATO. Central-eastern Europe was in the sphere of influence of the Soviet Union and the Baltic States, included Estonia, were directly in this sphere (Fig. 1). This 'frozen' map of northern Europe started to melt in the political revolutions of the late 1980s and new groups and alliances appeared.

The establishment of the Second Republic in Estonia in 1991 was part of the larger process of disintegration in the Soviet Union. Muitznieks (1995) claimed that the popular movements of Estonia and Latvia, and Sajudis in Lithuania during the 1980s 'not only destroyed the structures of Soviet power in their own republics, but "exported their revolution" to other areas of the Union as well' (Muitznieks, 1995, p. 3). To what extent these movements had an influence on the disintegration will not be discussed here, but the 1990s has brought Estonia and other Baltic States into the position they experienced during the 1920s and 1930s, ie. being between two larger powers: the EU/NATO and Russia. Between the First and Second World Wars the Baltic States avoided alignment with Germany or Russia, but in the 1990s the direction has been clearly towards full membership of the EU and NATO. The strategic map of the Baltic Region has changed significantly in the 1990s with the enlargement of the EU into the area and the disappearance of the Warsaw Pact. This changing geography of military

space can turn the 'geologically stable' Baltic Region into one with a major potential for 'geopolitical earthquake' in northern Europe (Fig. 1).

## *Militarisation and demilitarisation in Estonia 1939-94*

The issue of military areas, their disarmament and re-use, has its roots in the post-war years when Estonia was occupied and became part of the Soviet Union. On 28 September 1939, under the pressure of direct military intervention, Estonia's government allowed Russians to establish and use military areas on the western islands of Saaremaa and Hiiumaa, on the northern coast at Paldiski and Haapsalu and also inland (Fig. 2). According to this agreement, signed by Molotov from Russia and Selter from Estonia, a rent was to be decided at a later date. Stalin and Molotov also despatched about 25-35 000 Russian soldiers to these bases (Raun, 1989). The reason given for Russian intervention was the necessity to guard and protect the Finnish Gulf, Leningrad, and the Estonian coast, but shortly after their arrival the military forces started to use the bases to bombard Finland. In summer 1940 the Russians required 'a total use of Estonian territory' so Estonia was incorporated, along with Latvia and Lithuania, into the Soviet Union (Raun, 1989). The 'temporary

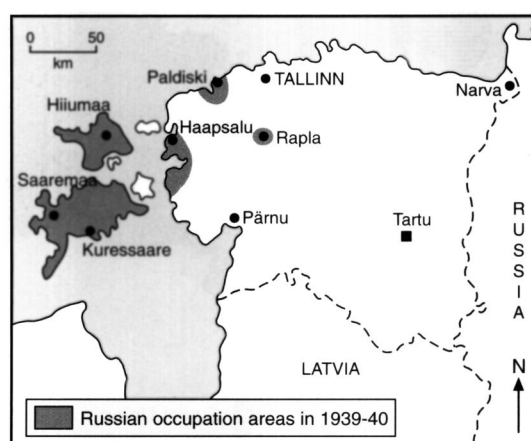


Fig. 2. The areas in Estonia used by Soviet Union military forces in 1939-40.

After: *Eesti Ekspress*, 1994b.

hiring', started in 1939, lasted 55 years – the last Russian troops left the country in 1994, three years after Estonia gained her independence.

The Soviet occupation between 1944 and 1991 was an era of extensive militarisation and several military ports and airfields, garrison areas, missile and radar stations, etc., were established. Furthermore, the number of Soviet military troops in Estonia increased substantially. Nordberg (1994), a Finnish officer and researcher on the strategy of Baltic areas, concludes that Soviet military units and their deployment in Estonia demonstrate how Estonia was seen during the Soviet period from a strategic viewpoint as an extension of the Leningrad air defence zone and critical for securing the mouth of the Gulf of Finland.

In 1945 the Soviet Army organised national divisions in the Baltic States, Estonia included. The Headquarters of the First Infantry Regiment (IR) and the branch units of the Estonian National Division were located in Tallinn; the remainder of the regiments were stationed in north Estonia: in Jägala (Second IR), in Jõhvi (Third IR), in Keila (tanks) and in Narva (engineers). These divisions were to defend the coastline in the case of war. Other Soviet forces were distributed around Estonia and consisted of one motorised infantry division in Tallinn, one in Klooga, two field artillery regiments in Viljandi and one engineer regiment in Pärnu. However, in 1956 national division was suppressed and all Soviet Union troops were organised on a universal basis (Nordberg, 1994).

For air defence Estonia was connected to the Leningrad Air Defence Army which operated through airbases in Haapsalu, Pärnu and Tapa; the latter also served as a helicopter base. Tartu airbase, one of the largest in Europe, was part of Smolensk Air Army's strategic bomb and transport regiment and included nuclear bomb storage facilities. Missile brigades were in four localities and there were six air-warning radar stations along the northern coast (Nordberg, 1994). Minor civilian and military aviation activities were carried out in 16 airfields around Estonia (Sinilind, 1985).

The most sophisticated naval base was at Paldiski on the northern coast 50km west from Tallinn. Besides ordinary military vessels there was an anti-aircraft missile battery and a large training complex for Soviet submarine crews, with nuclear reactor-based simulators. The largest and main naval base in Estonia used by the Soviet Baltic Fleet was located in Tallinn (Nordberg, 1994).

There were 160 Soviet military bases and garrison areas in Estonia during the Soviet Union era, to which 505 military areas of different size must be added making a total area of 85 175ha (Varu, 1995). One estimate states that in 1984 the number of Soviet military personnel in Estonia was 122 480. With the addition of family members, this gives a total of 147 480 people – about 10 per cent of the population. The largest units were at the Paldiski base, with 25 000, Tallinn with 20 000 and Tartu with 9000 personnel (*Rahva Hääli*, 1989). In the late 1980s, the politics of *perestroika* and *glasnost* started by Soviet President

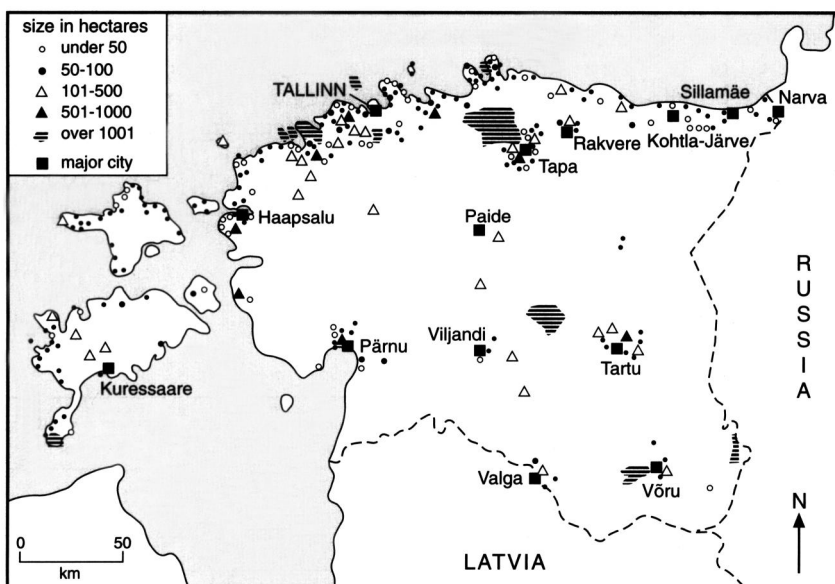


Fig. 3. Militarisation of Estonia during the Soviet period. The location of military areas. After: *Eesti Ekspress*, 1994b.

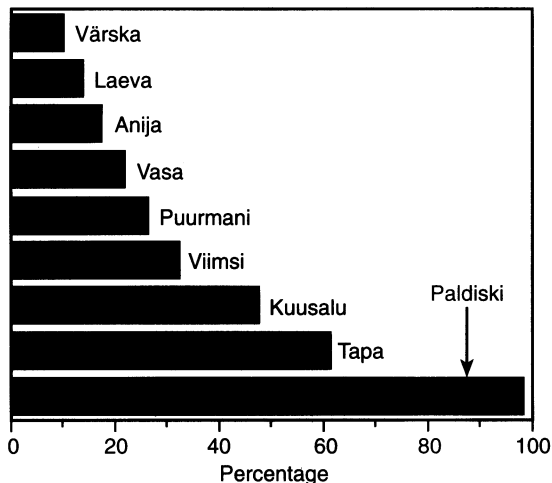


Fig. 4. The share of Soviet military forces in certain Estonian localities (%). Source: *Rahva Hääl*, 1992.

Gorbaciov resulted in increasing demands for the removal of Soviet troops from Estonia. The city council of Tartu, for example, demanded the official withdrawal of Soviet troops from Estonia in 1988 (Kölvik and Lotman, 1991). Estonia gained more autonomy at the end of the 1980s and the Soviet military presence was reduced to approximately 50 000-60 000 soldiers in 1990 (*Rahva Hääl*, 1993 cited in Park, 1995).

Figure 3 shows the areas used by the military. The three largest areas were of 3320ha in Tapa, 1330ha in Puurmani and 480ha in Võru, however, many military areas were smaller than 1ha and were sparsely distributed (*Eesti Ekspress*, 1994b). On the northern coast the small harbour town of Paldiski (founded by Peter the Great) became a closed Soviet military town where Soviet troops accounted for over 99 per cent of the population. In Tapa, too, the majority of the population (62 per cent) comprised Soviet soldiers. In fact 11.3 per cent of the territory of Harjumaa county, where Tapa is located, was directly occupied by

the Soviet forces (*Rahva Hääl*, 1992). Figure 4 shows those localities where the number of Soviet forces exceeded 10 per cent of the population.

The independence of Estonia in August 1991 made the presence of the Soviet/Russian troops unacceptable according to international law and agreements. The first negotiations over the withdrawal of the military presence were agreed in October 1991. From 1990 to 1992 the number of soldiers was reduced to 23 000-25 000 (Park, 1995). The Estonian army comprised approximately 1000 soldiers who possessed very limited numbers of weapons and other facilities. The presence of the foreign military forces was a problem *per se* because the foreign military equipment consisted of 163 aircraft, ten helicopters, 153 tanks and large numbers of other heavy equipment and included nuclear weapons (*Postimees*, 1992). Furthermore, Estonia did not have control over the closure of existing ex-Soviet military areas or those areas which were already closed. Contacts between increasingly demoralised Russian military personnel, ex-military personnel and Russian-directed mafia (Park, 1995) became another issue of concern for Estonia. In September 1993, two years after the recognition of Estonian independence, 26 000ha of Estonian territory remained under Russian military dominion. This territory consisted of Russian military bases, larger garrisons and other areas (Varu, 1995). Table 1 demonstrates the development of change in ownership of the military areas in Estonia over this period.

It has been estimated that the number of professional Russian soldiers in Estonia at the end of 1993 was between 2600 and 3000, located in three Estonian counties. By July 1994 between 1600 and 2000 soldiers, who possessed heavy military equipment (eg. 24 tanks), remained (*Eesti Ekspress*, 1994a). The negotiations for withdrawal finished in the summer 1994 when Estonian and Russian presidents Lennart Meri and Boris Yeltsin signed the agreement and the last Russian troops left Paldiski and Estonia at the end of August. One

**Table 1**  
**Demilitarisation in Estonia, 1991-94**

	Russian owned 1991	Expropriated by Estonians 1992-93	Russian owned 1 September '93	Russian owned 1 September '94
Military bases and garrison areas	160 (100%)	103 (64%)	57 (36%)	0 (0%)
Other military areas	505 (100%)	201 (40%)	304 (60%)	0 (0%)
Size of territory (ha)	85 175 (100%)	59 175 (70%)	26 000 (30%)	0 (0%)

Source: Varu, 1995.

important topic discussed during the final negotiations involved the number of Soviet/Russian military pensioners, estimated to be in excess of 10 000, who remained in Estonia in 1994 and presumably caused a security threat. Their continued presence gives rise to occasional political discussion (Park, 1995).

After August 1994 all military areas became the property of the State. However, the number of military areas exceeded the needs of the Estonian army so some areas were left under the rule of the Defence Ministry and others were given to local authorities (*Rahva Hääl*, 1994). Questions regarding the ownership of land and property needed to be addressed, but it is often difficult to find and agree upon the pre-1940s owners. Another matter still to be resolved is financing the re-use of military areas.

### *Re-use of military bases: Raadi airfield, Tartu*

Raadi military airbase (one of many in the Baltic) was one of the largest Soviet military airports in Europe, and, because it is located very close to the city centre of Tartu, provides a unique case. Raadi

airport was established during the First Republic for both civilian and military uses; during the Second World War the runway was paved by Germans and in 1952-56 the Soviet army extended it by 2500m. The reasons why Raadi occupied an important strategic position within the network of Soviet military airports included the following:

- the good meteorological conditions around the site;
- Tartu offered a ready-made labour force to support the development of military industries – aerospace and other military industries were part of the city's economic activities (Kilgi, 1995a); and
- from a political point of view Tartu is the intellectual and cultural capital of the country, and the location of Soviet military forces in the middle of this 'most Estonian' town had an influence on everyday life.

At this time the town was closed to foreigners and migration to and from it was controlled and restricted. The distance between the only Estonian university and Raadi military area was under 2km (Fig. 5).

Raadi airport was enlarged again in 1975 to its present size. After the mid-1970s there were

Geography © 1997

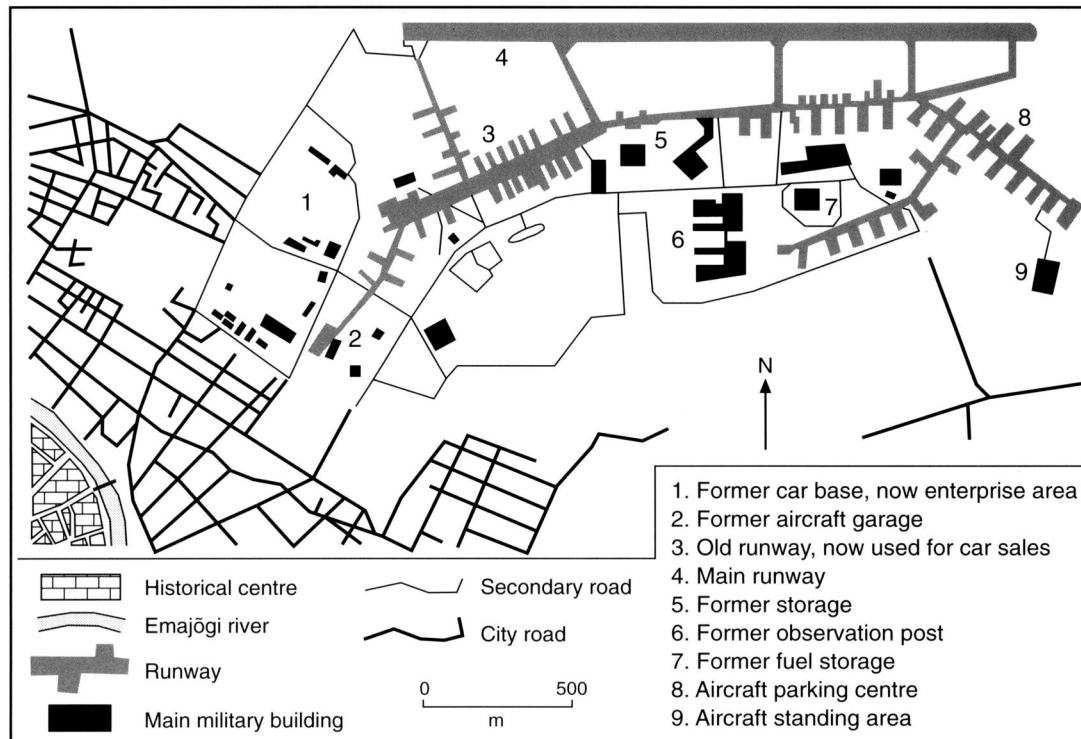


Fig. 5. The location of Raadi airport in Tartu.

facilities and space for over 10 000 military personnel, and over 100 aircraft (bombers, fighters and transporters) were located in Raadi. Other military equipment – flank rockets and weapons – were located in the area as well as a nearby nuclear bomb storage (Mander, 1995). The training and use of strategic ‘backfire’ fighters caused severe nuisance in Tartu between 1975-91, especially in the north-eastern part of the town. In the mid-1980s there were movements by local citizens against the presence of the Soviet troops; some were partly disguised as ‘environmental’ and partly open in their demands for independence for Estonia (Kölvik and Lotman, 1991; Muitsnieks, 1995).

Russian troops withdrew, with all aircraft and high-tech equipment, from Raadi airport in 1993. The maintenance of the area was given to the Estonian Defence Ministry who handed it to the local authorities following a decision by the Estonian Government in the summer of 1993 (Kilgi, 1995b). The area now belongs to three local authorities who, in June 1993, after approval by the State, created a joint enterprise ‘Tartu Raadi Lennujaam AS’ (Tartu Raadi Airport Ltd) whose duty is to perform administrative functions and to develop airport activities (Kull, 1995).

Today the size of the former military area is 700ha, covering about 28 per cent of the territory of Tartu. The area consists of one large runway (length 3050m, width 65m, thickness 1.2m), one small runway (200m), a flight control tower (preserved), storage buildings (partly demolished), a housing area (mostly decayed) and a service area of 33ha (Fig. 5). The majority of the old buildings are in a deeply degraded state and not easily converted or re-usable because Russian troops destroyed part of them before they withdrew. Nearby Hiinalinna (Chinatown) is inhabited by 2600, mostly poor, Russians which makes future intervention there difficult (Kull, 1995). Pollution of the airfield area presents problems, though, fortunately, the extent of the severely polluted groundwater and soils is limited (Mander, 1995).

The activities of the airfield have been limited. Estonian Defence Forces used the area and irregular air traffic (between Tartu and Tallinn) existed between 1993 and 1995. The majority of military industries in the town were closed, though some successfully converted to make non-military products. There have been recent attempts to find alternative uses for Raadi. For example, in December 1995 an international seminar was held in Tartu during which the EU network, ‘Demilitarised’, and national and local

authorities discussed urban planning and environmental issues, functional visions, organisation, management and financing for the Raadi airfield area. Four basic strategies emerged: (i) to use Raadi as a military airport, (ii) to use it as a civilian airport (iii) to find uses other than aviation activities, or (iv) simply to abandon it. The good climate conditions and existing basic infrastructure (the runway) mean that Raadi has the potential to be used as an airport. However, the aspect of nuisance and modernisation requirements present a hindrance. Both national and international aviation experts have presented serious doubts about the feasibility of Raadi’s use for passenger or air cargo traffic (Laherto, 1995). The Estonian Defence Forces have abandoned the airport and it is too soon to speculate about NATO use. Overall, Raadi does not play an important role in the national plan for military aviation (Rekker, 1996).

There has been discussion regarding the development of Raadi as a mixed area for housing, a university, recreation, a tax-free enterprise zone and small-scale businesses and industries (due to shortage of space in Tartu) (*Postimees*, 1996). One major problem this option presents is the degraded environment and the need to restore or build all facilities. Economic profitability would be a problem, at least in the short-term, due to the weak purchasing power of the inhabitants, so the realisation of this plan would be dependent of national and international investment. Complete closure is the cheapest option, but this means abandoning re-use plans and would involve large expense in cleaning up the degraded environment.

At the time of writing (autumn 1996) none of these options has been selected, though projects have been launched, for example, under the EU PHARE programme (*Postimees*, 1996). Major degradation of the runway has been slowed down, but it incurs continuous costs and offers income to only a few people. Present activities in the area include a weekly market for used cars and some small-scale production and merchandising. Development has been relatively slow because any kind of redevelopment requires large financial investment and because no clear vision about the future has been offered. More co-operation and constructive discussions between local and other interested groups are needed before a suitable solution can be found.



## Conclusion

The end of the Cold War brought disarmament and demilitarisation to the northern parts of Europe as a result of the Warsaw Pact. When Soviet troops withdrew from Baltic countries between 1990 and 1994 they left thousands of military areas. Some of these areas are now used by national armies but in the majority of cases they remain unused. The basic options are: remilitarisation, conversion to civilian use, or abandonment. Each option requires huge investment and in most cases national sources are insufficient.

Due to the location of the Baltic States, in a geopolitically fragile area between two major military powers – NATO and Russia – a more extensive political discussion is needed to resolve the problems of the re-use of demilitarised areas. The present geopolitical developments actually add to the pressure to increase remilitarisation, especially in Estonia which has actively sought full membership of NATO (Brzezinski, 1995). On the other hand, rapid economic growth and potential membership of the EU make the conversion of military areas to civilian an attractive prospect. The re-use of former military areas is important both as a motor or as a brake for local economic development and in regard to Estonia's geopolitical position.

The case of Raadi airport demonstrates that the re-use of former Soviet military areas in Estonia (and in other Baltic States and Eastern Europe) presents many problems. Economic questions arise quickly and serious environmental, social and political matters must be resolved before larger-scale re-use projects can be implemented (Otsa, 1993). It is difficult if not impossible to convert the cost of re-use into benefits everywhere, so in many cases the most feasible solution is closure with environmental cleaning.

It is important to view the re-use of military areas from both a local and a global economic and political perspective, and to try to find solutions which balance these interests. Unfortunately, no single solution will suit all localities and what may seem to be opportunities may turn into losses. The potential of military areas for re-use is such, however, that every effort should be made to seek co-operation at local, regional, national and international levels to enable that potential to be realised.

## References

- Anderton, C. and Isard, W. (1985) 'The geography of arms manufacture' in Pepper, D. and Jenkins, A. (eds.) *The Geography of Peace and War*, London: Blackwell, pp. 90-106.
- Achilles, O. (1990) *Militärische Belastungsanalysen und Regionale Konversion*, Kassel.
- Bonn International Center for Conversion (1996) *Conversion Survey 1996*, Oxford: Oxford University Press.
- Brzezinski, Z. (1995) 'A plan for Europe', *Foreign Affairs*, 42, pp. 26-42.
- Cumberland, J.H. (1973) 'Dimension of the impact of reduced military expences on industries, regions and communities' in Udis, B. (ed.) *The Economic Consequences of Reduced Military Spending*, Lexington: Lexington Books, pp. 79-147.
- Demilitarised (1994) *The Conversion of Military Sites*, Trowbridge: Wiltshire County Council.
- Eesti Ekspress* (1994a) 29 July, p. A4.
- Eesti Ekspress* (1994b) 2 September, pp. A12-A13.
- European Commission (1995) *Defence Restructuring and Conversion*, Brussels: EC.
- Faringdon, H. (1989) *Strategic Geography. NATO, the Warsaw Pact and the superpowers* (second edition), London: Routledge.
- Geoforum* (1994) 'Political geography: new theoretical directions', (special issue), 25(4).
- Kilgi, A. (1995a) 'The Raadi airfield yesterday, today, tomorrow', *Baltic Review*, spring/summer, p. 13.
- Kilgi, A. (1995b) 'Tartu Raadi airfield: history and present situation', paper presented at international seminar Re-use of Former Military Bases, Tartu, Estonia, 3-6 December.
- Kõlvik, M. and Lotman, A. (1991) 'Public participation in revitalising environment in Tartu' in Deelstra, T. and Janitsky, O. (eds.) *Cities in Europe: The public's role in shaping the urban environment*, Moscow: MOP, pp. 271-80.
- Kull, V. (1995) 'The Raadi airfield yesterday, today, tomorrow', *Baltic Review*, spring/summer, p. 13.
- Laherto, A. (1995) 'Air cargo and aviation activities in Finland' paper presented at international seminar Re-use of Former Military Bases, Tartu, Estonia, 3-6 December.
- Mander, Ü. (1995) 'Environmental pollution in the former Soviet military airfield in Tartu' paper presented at international seminar Re-use of Former Military Bases, Tartu, Estonia, 3-6 December.
- Muitznicks, N.R. (1995) 'The influence of the Baltic popular movements on the process of Soviet disintegration', *Europe-Asia Studies*, 47, pp. 3-25.
- Nordberg, E. (1994) *The Baltic Republics. A strategic survey*, *Finnish Defence Studies*, 6, Helsinki: National Defence College.
- Otsa, E. (1993) 'Military environment' in *Estonian Environment*, Tallinn: Environmental Information Centre, pp. ?.
- Park, A. (1995) 'Russia and Estonian security dilemmas', *Europe-Asia Studies*, 47, pp. 27-45.
- Postimees* (1992) 16 June, p. 5.
- Postimees* (1996) 23 January, pp. 12-13.

Rabva Hää! (1989) 31 October, p. 3.  
 Rabva Hää! (1992) 29 May.  
 Rabva Hää! (1993) 9 November, p. 3.  
 Rabva Hää! (1994) 14 September, p. 2.  
 Raun, T.A. (1989) *Estonia and Estonians*, Stanford CA: Stanford University Press.  
 Rekker, P. (1996) 'Military sites in Estonia' an interview at Estonian Ministry of Defence, Tallinn, 25 September.  
 Sinilind, S. (1985) *Viro ja Venäjä: havaintoja Neuvostoliiton kansallisuuspolitiikasta Virossa 1940-1984*, Helsinki: Alea-kirja.  
 Taylor, P.J. (1993) *Political Geography. World-economy, nation-state and locality* (third edition), New York: Longman.  
 Taylor, T. (1994) *European Security and the Former Soviet Union. Dangers, Opportunities and Gambles*, London: Royal Institute of International Affairs.  
 Thorne, C. (1994) 'Economic opportunities for the demilitarization affected areas' paper presented in International Forum of Re-development of Closed Military Facilities, Bremen, 11-13 September.

Vares, P. and Lassinantti, G. (1995) *Ecological Security of the Baltic States, Nordic countries and north-west Russia*, Tallinn: Academy of Sciences.  
 Varu, V. (1995) Unpublished statistics about military bases, Estonian Ministry of Defence, Tallinn.  
 Wallensteen, P., Nordquist, K.-Å., Hagelin, B. and Melander, E. (1994) 'Towards a security community in the Baltic Region', *Peoples of the Baltic*, 7, Uppsala: The Baltic University.

Dr. J. S. Jauhiainen is Docent at the Institute of Geography, University of Tartu, Estonia and Docent at the Department of Geography, FIN-20014 University of Turku, Finland.

## CLASSIC LANDFORM GUIDES

This new series aims to provide concise, simple and informative guides to help students and visitors to a better understanding and appreciation, of the British landscape. Each has \* up-to-date case study material which fulfils the requirements of A-level examining bodies by \* an accessible and convenient style and format \* full colour photography, high quality original cartography and illustration \* Ordnance Survey map extracts of relevant area.

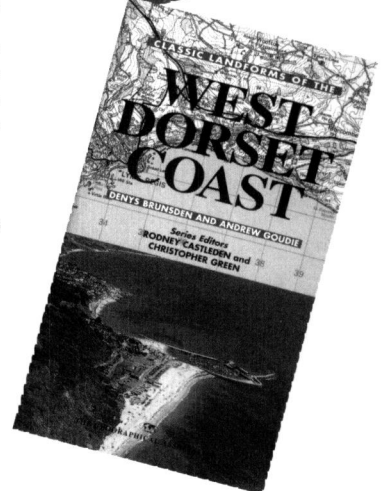
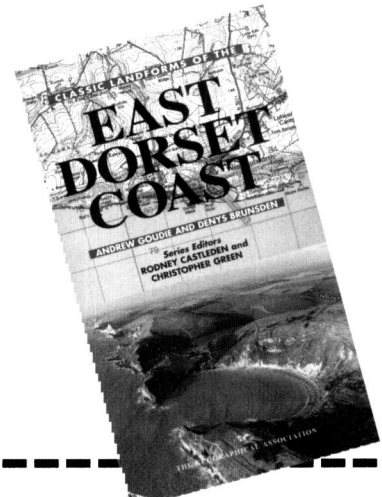
**Ordnance Survey Map Offer (GA members only)** Members who order titles from this new series are entitled to buy the relevant OS 1:50 000 Landranger maps from the GA at a discount - please refer to the April 1997 catalogue for details.

**Classic Landforms of the East Dorset Coast**  
 Andrew Goudie and Denys Brunsden  
 48 pages, ISBN 1 899085 28 9

**Classic Landforms of the West Dorset Coast**  
 Denys Brunsden and Andrew Goudie  
 56 pages, ISBN 1 899085 19 X

Price: **£6.00** (GA members) **£8.95** (non-members)

Published by The Geographical Association, 343 Fulwood Road, Sheffield S10 3BP.  
 Tel 0114 267 0666, Fax 0114 267 0688.



### ORDER FORM

Name \_\_\_\_\_

Address \_\_\_\_\_

Postcode \_\_\_\_\_ Daytime Tel: \_\_\_\_\_

GA Membership no: \_\_\_\_\_

Please send me the following Classic Landform Guides:

\_\_\_ copies of the East Dorset Coast (ISBN 1 899085 28 9)

\_\_\_ copies of the West Dorset Coast (ISBN 1 899085 19 X)

I enclose a cheque for £ \_\_\_\_\_ made payable to **The Geographical Association**

Please debit my credit card with £ \_\_\_\_\_  
 (Please attach credit card holder's address if different from above.)

My VISA/ACCESS number is

Expiry date   /

Please send invoice. Orders to be invoiced must carry an official order number.

Order number \_\_\_\_\_

(Please attach address for delivery if different from above.)

Signature \_\_\_\_\_ Date \_\_\_\_\_

Please return this form to the address above and allow 28 days for delivery  
 Reg charity no 313129.